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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture I.

INTRODUCTORY—DESCRIPTION AND SELECTION OF INSTRUMENTS.

Two things have to be considered when attempting to describe the operations in midwifery—

1. What are the emergencies which call upon the Practitioner to operate?

2. What are the means, the instruments at his disposal?

If each accident or difficulty in labour were uniform and constant in all its conditions, it might be possible to apply to its relief the same operation or the same instrument. The history of operative midwifery might be told in an orderly series of simple mechanical formulæ. But how different is the case in practice! How infinite is Nature in her phases and combinations! The dream of Levret will never be realised. In proportion as observation unfolds these combinations, ingenuity is ready to multiply the resources of art. To describe these combinations, and the means of meeting them, is a task of ever-growing difficulty. Partial success only is possible.

The multitudinous array of instruments exhibited at the Obstetrical *conversazione* last year, vast as it was, gave but a feeble idea of the luxuriant variety that have been devised. If all these had their individual merits and uses, endless would be the labour of appreciation; the task of describing the operations of midwifery would be hopeless. It is, indeed, true that every instrument, even every modification of an instrument, represents an idea, although sometimes this idea is not easy to understand. Fortunately, it is not always important that the idea should be understood. Many of these instruments are suggested by imperfect observation, by ill-digested experience; many are insignificant variations upon an idea which, in its original expression, was of little value. Huge heaps, then, of instruments may, without loss to science, and to the great comfort of womankind, be cast into the furnace; the ideas of their inventors melted out of them. All that is necessary in relation to them is, to preserve examples in museums, where they may serve as historical records marking the course of obstetric science in its ebb and flow; for, strange to say, obstetric science has its fluctuations of loss as well as gain, of going back as well as going forward. These historical specimens will also serve the useful office of warning against the repetition of exploded errors, and of saving men the trouble and vexation of reinventing.

When science finds herself in the presence of complicated and disordered facts and ideas, her resource is to classify—that is, to seize a few leading ideas under which the subordinate ones may be grouped. In the first instance, the minor or subsidiary ideas—the epigenetic ideas they may be called—are disregarded. The grand or governing ideas only are studied. Then the process of analysis, the descent to details, to particulars, begins; and again, unless we keep a steady eye upon the governing principles, we are in danger of losing ourselves in the infinitely little, of falling into chaos, of running astray from the parent or guiding truth, in fruitless chase of the multitudinous splinters into which it has been subdivided.

What, then, have we to do? Knowing that, we will see how we can do it. Nature, although always requiring skilful watching, in the majority of cases does not want active assistance. But the cases are many in which pain, agony, may be averted; in which positive danger has to be encountered and thrust aside; in which action must be prompt and skilful. Labour is a problem in dynamics. Three factors are concerned in the solution:—1st, there is the fœtus, the body to be expelled. 2nd, there is the channel, made up of the bony pelvis and soft parts, through which the body must be propelled; these two together constitute the resisting force, the obstacle to be overcome. 3rd, there is the expelling power, the uterus and voluntary muscles. These factors must be harmoniously balanced to produce a healthy labour. Labour may come to a stand from error in any one of these factors, or from disturbance of correlation. The permutations are almost infinite in kind and degree. There are many ways in which disturbance may arise. There are not so many ways in which compensation or correction may be made—that is, treatment is more simple than are the causes of disturbance. To take the third factor first. The expelling power may be deficient, the other factors preserving their due relations. This power is a *vis à tergo*. The want of it may be made good in one of two ways. We may in some cases spur the uterus and its auxiliary muscles to act. The power may be dormant only; it exists potentially, capable of being roused by appropriate stimulus. This is the case for oxytocics, such as ergot, cinnamon, borax, or cinchona. But the power may not be there, or, if there, it may not be wise to provoke it to action.

An interesting question arises here:—Can we, without resorting to oxytocic medicines, arouse or impart a *vis à tergo?* Can we apply direct mechanical force to push the fœtus out of the uterus, instead of dragging it out? Now, in some cases this seems possible. Von Ritgen,(a) in a memoir on "Delivery by Pressure instead of Extraction," adverting to the fact that the *natural* mode is by pushing out, said that the *artificial* mode was by dragging out; and asked, very pertinently, "Why do we always drag and never push out the fœtus?" Dr. Kristeller(b) has carried the idea into practice. By means of a dynamometric forceps he has shown that a force of five, six, or eight pounds only is often sufficient to extract a head that has lain for hours unmoved; so that the force to be administered in the form of pressure need not be very great. It is needless to premise that the presentation and the relations of fœtus and pelvis must be normal. The method is as follows:—The patient lying on her back, the operator places his hands spread on the fundus and sides of the uterus, and combining downward pressure with the palms on the fundus, with lateral pressure by means of the fingers, the uterus being brought into correct relation with the pelvic axis, its contents are forced down into the cavity. The pressure is so ordered as to resemble the course and periodicity of the natural contractions. Of course, the pressure will often excite uterine contraction to aid or even supplant the operator. But it seems that pressure alone is sometimes sufficient. As an adjuvant to extraction, pressure is, I know, of great value. I never use the forceps or any extracting means without getting an assistant to compress the uterus firmly, to maintain it in its proper relation to the axis of the brim, and to help in the extrusion of the fœtus. This resource, then, should not be lost sight of. In certain cases it may obviate the necessity of using the forceps; or it may stand you in good stead when instruments are not at hand. When a *vis à tergo* cannot be had, we have the alternative of supplying power by importing a *vis à fronte*. In the case we are supposing, the means of doing this reside chiefly in two instruments—the lever and the forceps.

In the second order of cases there is a want of correlation between the body to be expelled and the channel which the body must traverse. There are many varieties of this kind of disturbance. The progress of the head may be opposed by rigidity of the soft parts, especially of the cervix uteri. Patience is one great remedy for this. A dose of opium and a few hours' sleep will sometimes accomplish all that is desired. But patience may be carried too far. If the pulse rise and the sufferer show signs of distress, it is proper to help. I have no faith in belladonna. To excite vomiting by tartar emetic is to add to the distress of the patient without the certainty of relieving her. To bleed is also to indulge in a speculation that will certainly cost the patient strength she will need, and it promises only doubtful gain. We have two mechanical resources to meet this strictly mechanical difficulty. There is the hydrostatic dilator, which I have contrived for the express purpose of expanding the cervix. In the case of a cervix free from disease, dilatation will commonly proceed rapidly and smoothly under the eccentric pressure of these dilating water bags, which closely imitate in their action the hydrostatic pressure of the liquor amnii. In the case of rigidity from morbid tissue, as from hypertrophy or cicatrices, something more may be necessary. The timely use of the knife will save from rupture, from exhaustion, or from sloughing. I have contrived a very convenient bistoury for this purpose. It is carried by the finger into the os uteri, multiple small nicks are made in its circumference, and by alternate distension

(a) *Monatsschr. f. Geburtsk.* 1856. (b) *Ibid.*, 1867.

with the water bags the cervix may be safely and sufficiently dilated.

The fœtus and the channel may be duly proportioned, but *the position of the child is unpropitious.* In this case all there is to do is to restore the lost relation of position. The hand, the lever, and the forceps are the instruments. *There is disproportion.* This may be of various kinds and degrees. The varieties will be more conveniently unfolded hereafter. It is sufficient to say here that all resolve themselves, in practice, into three classes—

1. Disproportion that can be overcome without injury to the mother and with probable safety to the child.

2. Disproportion that can be overcome without injury to the mother, but with necessary sacrifice of the child.

3. Disproportion that can be overcome with possible or probable safety to both mother and child.

The first class of cases may be relieved by the hands, or by the forceps. The second by reducing the bulk of the child to such dimensions as will permit it to pass through the contracted channel. The perforator, the crotchet, the craniotomy forceps or cranioclast, the cephalotribe, the forceps-saw are the principal instruments for bringing the bulk of the child down to the capacity of the pelvis.

In the third class of cases we cannot insure the mother's safety by sacrificing her child. We therefore seek her *probable* safety by an operation—the Cæsarian section—which evades the difficulty of restoring the relation of bulk and capacity between fœtus and pelvis, by extracting the fœtus through an artificial opening in the mother's abdomen. The instruments required for this purpose are not specially obstetrical. But a bistoury, scissors, needles, and sutures, silk or silver, take but little room, and as they may at any unforeseen moment be wanted, they should always be found in the obstetric bag. And we shall have to put into it a few other instruments and accessories in order to be prepared for all emergencies. Let us enumerate all in order.

Obstetric Instruments—The Obstetric Bag.

To save the child.
1. A lever.
2. A pair of long double-curved forceps.
3. Roberton's apparatus for returning the prolapsed funis.

To reduce bulk of child.
4. A craniotome or perforator.
5. A crotchet.
6. A craniotomy forceps.
6a. Simpson's cephalotribe?

7. Ramsbotham's decapitating hook.
8. A blunt-ended straight bistoury, with a cutting edge of three-quarters of an inch, to incise the os uteri in cases of extreme contraction or cicatrisation. A hernia-knife answers very well.

To induce or accelerate labour.
9. A Higginson's syringe, fitted, on my plan, with a flexible uterine tube (9 inches long), which serves for the injection of iced water or perchloride of iron, to arrest hæmorrhage, and also serves to expand.
10. A set of my caoutchouc hydrostatic uterine dilators.
11. Three or four elastic male bougies (No. 8 or 9).
12. A porcupine-quill to rupture the membranes.
13. A flexible male catheter. (The short silver female catheter is often useless, and is generally less convenient than the flexible male catheter.)
14. A pair of scissors and thread.

For the Cæsarian section.
15. A bistoury.
16. Sutures, silk and silver.

Medicines.

1. Chloroform and inhaler.
2. Laudanum
3. Hofmann's anodyne.
4. Ergot of rye.
5. Solution of perchloride of iron. The liquor ferri perchloridi fortior (Brit. Pharm., 1867). An ounce of this diluted with six ounces of water is an efficient hæmostatic.

The most convenient mode of packing these instruments is to adapt a travelling leather bag. There is always spare room for anything likely to be wanted besides its ordinary furniture, or for bringing away a pathological specimen; and by turning out the obstetric furniture you have a travelling bag again.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON "HAY ASTHMA," "HAY FEVER," OR SUMMER FEVER.

By WILLIAM PIRRIE, M.D.

The peculiar and not uncommon disorder to which the names of "hay fever," "hay asthma," and "summer catarrh" are usually given, cannot have been regarded as a distinct complaint by the earlier writers on Medicine, for no notice of it is to be found in their writings.

Cullen does remark that in some persons asthmatic "fits are more frequent in summer, and particularly during the dog-days, than at other colder seasons;" but this probably was intended as nothing more than part of his experience regarding the causes or circumstances attending some attacks of that most capricious disorder, common spasmodic asthma.

Heberden does seem to have recognised the complaint; for, when treating on catarrh, he remarks to the effect that he had seen it recur annually in four or five persons during the months of April, May, June, and July, and continue for a month.

Dr. Bostock, the celebrated chemist, gave a graphic and detailed account of his own sufferings, and of the ordinary phenomena and causes of the disease, in the tenth and fourteenth volumes of the *Medico-Chirurgical Transactions* for 1828, and applied to it the name of "catarrhus æstivus."

Dr. Elliotson, who first learned of the complaint from Dr. Bostock, relates his own experience, and details numerous cases communicated to him from different parts of the country, in his "Practice of Medicine."

More or less brief notice is taken of the complaint by the numerous more recent writers on systematic Medicine, or on pulmonary affections; but the two chief authorities of our own days on this interesting disorder are Dr. Phœbus, of the University of Giessen, and Dr. Wm. Abbotts Smith, whose treatise is full of interest and information.

From the descriptions usually given of this complaint, we would infer that from one and the same cause there may arise at one time a purely spasmodic complaint, at another time a febrile disturbance, and at another time an illness in which are blended a spasmodic and a febrile element. Some, again, look upon the subject of our communication as a mere feverish cold, but whether it be so regarded or not, the febrile symptoms are usually considered to be consequent on the local affection. Hence the terms "hay asthma," "hay fever," "summer catarrh," and "summer bronchitis," suggested by the predominance of the one or the other set of symptoms. By the majority of persons, Professional as well as non-Professional, the emanations occurring during the period of hay-making, or when certain grasses are in flower, are looked upon as the grand causes of either form of illness. Cases are, however, recorded where the sufferers have referred their indisposition, not to this, but to solar heat as its cause; and my own observations and inquiries lead me to conclude that sufficient importance has not been attached to their opinions on this point. My own experience leads me to conclude that there are two forms of illness which, though commonly called by one and the same name, yet differ materially in their origin, in some of their symptoms, in their duration, and in their obedience to remedial measures.

The one is a purely spasmodic affection—a genuine asthmatic seizure—which may recur at short intervals during a certain period of the year, but which does not continue for days and weeks with little variation of intensity. This form of illness may be materially affected by treatment in a short time, and may justly be referred to the irritation consequent on inhaling vegetable matter suspended in the air, or, as suggested by some, to the benzoic acid which is liberated from certain grasses by the influence of the sun. Some persons are to be found who cannot pass through a hay-field or in the proximity of a rich meadow without suffering from spasmodic dyspnœa, with more or less sneezing and lachrymation, just as others are similarly affected by the powder of ipecacuanha, by the odour of roses, by nettles, and some other flowering plants, or by the fumes of chlorine or iodine, be they ever so much diluted. These cases, I would say, are characterised by the absence of much general indisposition, by the absence of febrile symptoms, by a short duration, and by a speedy recovery after removal from the place where the illness was contracted.

The other form of illness, occurring at the same season of

the year as that first mentioned, is of a very tedious character, is very little influenced by remedies or change of place if once established, and is of a more or less distinctly febrile nature. The fever, however, is not symptomatic of bronchial inflammation, but is accompanied by a peculiarly relaxed or paretic state of the naso-pulmonary vascular system; occurs only in persons with a peculiarity of constitution to be afterwards mentioned; and is mainly due to the debilitating or paralysing effect of solar heat or high temperature on the cerebro-spinal and sympathetic systems.

This distinction appears to me to be practical, and also one that the sufferer himself is at times sensible of. The following extracts from the narrative of one who for many years was a great sufferer from the febrile form of illness show a recognition on his part of two forms of illness occurring at the same season of the year, but of different characters, varying durations, and to be ascribed to different causes—the one to solar heat, the other to the smell of hay. When writing of the illness he attributed to the effects of the sun, he says, "I frequently had such a chill on me at first that I required a fire; then there was general oppression and uneasiness; and then there appeared like a feverish cold in the head, with itching in the eyes. The disease makes and leaves me very weak, and is very apt to be constantly relapsing during the summer season. Any day I have occasion to be out in summer under a strong sun, which causes perspiration in my head, I am sure to have an attack of this complaint. I am always best in cold, cloudy days, in summer," etc. When describing an illness which occurred after several years of perfect health, and which he ascribed to the smell of hay, he writes, "I had on one occasion to be in the country in July, and having then been in the immediate vicinity of a very rich hay and clover field for about half an hour, I was that very day seized with a fit of asthma, and was so ill that I could not go to bed at night, but was obliged to sit in a chair all night. The complaint on that occasion, however, was confined simply to a difficulty of breathing. That was altogether different from the attacks described before, which lasted four or six weeks or more."

A delicate lady, who for many years has suffered from what she termed "summer cold," remarked to me, "I cannot go out on a very bright and hot day without being so ill, and I think it is more from the general effect of the heat on me than anything else." Another female, who was a great sufferer, told me "she was always ill for many weeks, and was always worst when the season was a bright and sunny one."

An officer, who has been many years in India, stated to me that he always gets "ill about the beginning of June;" that he "has a low feverish feeling, with occasional chills, and great itching of the eyes and running at the nose for six weeks or so;" that he generally must shut himself up "in a cool and dark room;" and that he was sensibly worse when he "faced a strong light or was exposed to the sun." This sufferer had never more chest uneasiness than a feeling of "stuffiness," similar to that he often "felt in a bad cold or ague fit." This sufferer was once seized when out at sea, beyond the reach of all vegetable emanations, and also passed through a long illness every year in India. It is very evident, from this case, that this form of indisposition may arise independently of all vegetable effluvia; and, if ever arising from such a source, may be caused in those with the requisite predisposition by any form of rich vegetation. That there is a form of prolonged feverish indisposition, probably caused by solar heat and strong light, and not by vegetable emanations, and to which the term summer fever might be more appropriate than "hay fever," seems warranted by the following facts:—

The complaint is limited to a certain period, extending from the beginning of June to the middle or end of August; but many of the grasses and flowering plants to which it is often ascribed continue in flower beyond that time. I have never met with any one who suffered from the usual symptoms by going about hay-stacks at other times of the year.

I myself have met with and heard of more sufferers among people residing in the heart of towns than amongst those who, by living in the country, are necessarily more exposed to emanations from grasses or other flowering plants. The effects of entire removal from the sphere of these emanations have not been such as to favour the idea of their being the sole agents of disorder. The complaint has appeared when the subject of it was beyond the reach of all vegetable effluvia, as at sea. Some sufferers have of themselves referred their illness to great heat of the weather, and, when once attacked, instinctively avoid the sun as much as possible.

The premonitory feelings of languor, lassitude, oppression, anorexia, and insomnia, experienced by some, are well-known effects of high temperature. Although I have not sufficient data to establish the point, still I think I have heard of more cases of so-called hay fever in England than in Scotland, which we might expect if high temperature plays an important part in its causation.

It is unnecessary to make any lengthened enumeration of the symptoms of this febrile illness, for which we have proposed the term summer fever; but a brief statement of the more prominent ones is required for our present purpose.

The premonitory symptoms consist of a general feeling of indisposition, languor, lassitude, restlessness, insomnia, anorexia, foul tongue, and constipation, or, it may be, diarrhœa. The most prominent symptoms of a confirmed attack are more or less headache, accompanied by heat of scalp, which symptoms, in my experience of cases, are always aggravated by strong light and exposure to the sun; occasional giddiness and buzzing in the ears; general itchiness of the facial integument; conjunctival injection; lachrymation and itchiness of the eyelids, specially at the inner canthi; sneezing and irritation of the nostrils, with flux; soreness and feeling of pricking in the throat; a red and swollen state of the pharynx; post-sternal oppression and rawness; a varying degree of dyspnœa, which, however, may never approach to anything like asthmatic breathing; a varying amount of cough followed by muco-watery expectoration; a hot and dry skin, which frequently becomes more cool and moist towards morning; and a pulse, sometimes not greatly increased in frequency, but at times mounting to 100 or more beats in the minute. After the disappearance of all the local symptoms, the patient for some time feels weak and out of sorts. Occasional wheezing and mucous râles are discovered on a stethoscopic examination.

As already stated, the dyspnœa may never amount to a degree entitling it to the appellation asthmatic, and the feeling of constriction in the chest was likened by one patient to that which he always experienced during an attack of ague.

Again, it is well worthy of notice that a feeling of tightness or constriction in the chest forms a very prominent symptom of other forms of illness which are by general consent attributed to direct solar heat or high atmospheric temperature. In many cases of ardent continued and of other forms of fever, and in the various forms of *coup de soleil*, which all admit arise from direct exposure to the sun or residence in a highly heated atmosphere, a feeling of constriction or stuffing is always complained of in the chest. This I had ample opportunities of verifying by personal observation. I have observed in some cases that the sufferer cannot face a strong light or expose himself to the sun without an immediate aggravation of the general distress, independently of the local affections, and that these same persons are apt to be disagreeably affected by these agencies at all seasons of the year. Now, it is rather remarkable that some of the symptoms of this complaint make up the after-effects of ardent continued fever and *coup de soleil*, which undoubtedly arise from undue heat. More or less mental depression, languor, and sense of weakness along the spine, disturbed breathing and pectoral discomfort, dislike to strong light and inability to undergo exposure to the sun with impunity, distressing formication, and ophthalmic irritation and lachrymation, with frequent febrile heats, have all come under my observation as consequences of these grave disorders.

May not, therefore, the so-called hay-fever be a minor degree of sun fever, modified by circumstances of climate, and by a peculiarity of system constituting a necessary predisposition? We seem shut up to this conclusion in some cases which cannot be ascribed to any vegetable exhalations, where no relief follows complete seclusion in the house, or withdrawal from the influence of all vegetable effluvia, and in those cases where the complaint has first appeared at sea.

But it may be said that the disorder is nothing more or less than mere catarrh.

Catarrhal symptoms may constitute a special complaint, commonly called a cold, or they may be the prominent features of another disorder, as influenza or epidemic catarrhal fever; or they may constitute a part of some of the exanthemata, as, for instance, measles; but in the present instance the complaint differs from common catarrh, with which it is most likely to be confounded, in the following important respects:—

It occurs at a season and under circumstances unfavourable to the generation of ordinary catarrh.

It is much less common than simple catarrh; many persons

also who are prone to colds at other seasons being free of all the symptoms at the period of prevalence of summer fever.

It is not so frequent amongst the aged as amongst adults and young persons.

It has no tendency to appear or recur but at one season of the year.

It is wholly disobedient to the ordinary remedies for catarrh.

The affection may also be confounded with bronchitis, but in many respects it widely differs from this complaint.

It occurs at a season when bronchial attacks are not usually met with. The coryza and ophthalmic distress are more severe and of much longer duration in summer fever than in bronchitis. In the former complaint they are never absent; whereas in the latter they only usher in the pulmonary complication. The dyspnœa, which need not at any period be very marked, is characterised also by the absence of that progressive increase and subsequent like decrease which are observed during the advance and decline of an attack of bronchitis. The pulse also does not resemble that of bronchitis either in its frequency or in its steadiness. It fluctuates within a given period much more than we would expect in any inflammatory affection.

Intolerance of light, and heat especially, forms no feature of bronchitis. The stethoscopic signs and the expectoration changes are not so diffused, and do not undergo the regular changes which attend the rise and decline of inflammation of the bronchial mucous membrane.

(To be continued.)

CASE OF OVARIOTOMY.

By GEORGE WHYTE, M.D., Elgin.

Mrs. J. D. consulted me on the 6th March last, and gave me the following history:—She is thirty-six years of age, has been married seven years; has one child, a boy, now six years old; had a miscarriage four years ago, and, five or six months afterwards, an attack of gastric fever, from which she made a good recovery, and remained pretty well for about a year, when she began to be troubled with irregularity in her courses, these sometimes making their appearance every two or three weeks, at other times being absent for as many months. For the last three months she stated she had seen nothing. In March, 1866, while washing, she felt a sharp pain in her left side low down, which continued for about a fortnight, and was succeeded by a smart attack of diarrhœa. In May, she had frequent attacks of sickness, and, whenever she exerted herself, bearing-down pains. At this time she felt a hard painful lump in her left iliac region, and a "deficiency" in her left leg; she made her urine oftener than formerly, and frequently had pain in doing so; her bowels were costive, and she was much troubled with flatulency. These symptoms gradually increased in severity. For the last six months she has been confined to the house, and generally to her bed.

She was pale, emaciated, and exhausted-looking; her tongue red and ragged, appetite almost gone, constantly troubled with sickness, flatulency, and pain in her back and left iliac region. On examination, I detected a tumour in the lower part of her abdomen, occupying the left and greater part of the right iliac regions, and extending to fully an inch above the umbilicus. It moved slightly from side to side, and the abdominal parietes glided pretty freely over its surface. Fluctuation was very distinct in particular directions; deep pressure on the left side caused sharp pain. The os uteri was easily reached, and seemed natural; no impulse was communicated to the tumour by pressure on the os. The uterus was moveable, its cavity, as measured by Sir J. Y. Simpson's sound, two inches and a half in length; the fundus displaced backwards and to the right side. When the finger was introduced into the rectum, the womb, by means of the sound, could be made to glide over it, and moving the sound while in the uterine cavity gave a slight impulse to the hand placed over the tumour externally. Fluctuation was quite distinct through the walls of the vagina and rectum. When the patient was placed on her knees and elbows, the tumour fell somewhat forward, without much influencing the position of the os. The patient could not retain her water beyond a couple of hours, and she had often pain in micturition; her abdomen was tympanitic, except over the tumour, where it was dull on percussion; her bowels were costive, she was suffering from hæmorrhoids, and she had numbness, and at times œdema of the left leg.

The diagnosis I wrote down at the time was a multilocular ovarian tumour of the left side, adhesions slight, pedicle not very long—probably from two to three inches.

Her symptoms were somewhat relieved by treatment, but as the progress was slow, and as they seemed to be caused by the pressure of the tumour, I tapped it on March 20, and removed between four and five pounds of dark viscid fluid. The patient made a good recovery, and under the citrate of iron and quinine improved considerably in strength. The cyst, however, soon began to refill, and I consulted Professor Pirrie, of Aberdeen, about the case, who agreed with me that ovariotomy ought to be performed without delay. The patient and her friends, after having been made fully aware of the nature and danger of the operation, were not only willing but most anxious to have it done. Accordingly, on April 20, I removed the tumour in presence of Professor Pirrie, Dr. Taylor (Easton, Elgin), Dr. Duff (Elgin), Mr. Wickham (Gray's Hospital), and Mr. McDonald, student of Medicine, the latter of whom carefully administered chloroform. The tumour was not so large as when it was tapped, and the abdominal walls did not glide so freely over its surface; it was, however, free from pain even on deep pressure, and the patient was cheerful and in much better health.

I exposed the cyst by an incision about three inches in length, commencing between two and three inches below the umbilicus, but, owing to parietal adhesions, this had to be extended on a director upwards and downwards to nearly five inches, so as to allow the hand to be passed round the tumour. I passed a trocar into the cyst, but the fluid did not escape readily till the adhesions were broken down; these, though pretty extensive, were evidently of recent formation, and were easily separated by the hand. During the operation, Professor Pirrie kept the abdominal walls closely applied to the tumour, and, notwithstanding that the cyst gave way during extraction, and a good deal of fluid escaped, not a drop entered the abdomen. Adhering to the upper part of the tumour were a coil of intestine and a piece of omentum, which were easily detached and returned. The pedicle, which was only about two inches long and one broad, was secured by Mr. S. Wells's clamp, and the tumour cut away. The wound was closed by four deep silk sutures, including the peritoneum, and one superficial one, and, at the suggestion of Professor Pirrie, the pedicle was further secured by two acupressure needles. The cyst was multilocular, and weighed twelve ounces. The fluid, which was dark and viscid, weighed between four and five pounds.

The following notes are abridged from my case-book:—The patient rallied well after the operation; there was some chloroform sickness, but towards night she quieted; pulse 120; perspiration free. During the first night she got an opiate enema to relieve pain in the back, and she rested well after it. 2nd day: Pulse 112, of good strength; skin cool and moist; slight sickness; pain in the back severe. Ordered another opiate enema, and for nourishment beef-tea and brandy-and-water. 3rd day: Passed a tolerable night; sickness rather increased; some abdominal tympanitis; pulse 104; pain in back much less. Night: Some retching; tympanitis increased; pulse 108; ordered enema of gruel and castor-oil. 4th: No relief from the enema; passed a restless night; there was severe retching; noticed a streak of blood in the vomited matters; abdomen like a drum; pulse only 100, but weak. Gave the patient another enema, but as it afforded no relief, and as she was much exhausted, I gave her a grain and a half of solid opium, and repeated it in an hour. This procured her a little sleep, but when she woke the retching was as bad as ever, and the abdomen more tympanitic. Ordered her 1-48th of a grain of strychnia every two hours, and in a very short time quantities of wind began to pass both upwards and downwards with great relief to all the symptoms. The abdomen became soft, the vomiting very soon ceased, and she fell into a quiet sleep, which lasted nearly five hours, and, after some food, slept again. After this the patient scarcely ever had a bad symptom. The stitches were all removed on the fifth day, the clamp on the tenth, and on the twelfth she was out of bed. I put her upon a good nourishing diet, with quinine and iron, and she has daily recovered since, and is now rapidly getting strong and fat.

I do not know whether strychnia has ever been given for flatulent distension of the bowels after ovariotomy; but in this case nothing could have answered better. I was induced to try it from having observed its good effects in many cases where flatulency and constipation were due to want of power in the muscular coat of the bowels, and, I think, where there

are no symptoms of inflammation, it will be found a safe and efficient remedy for the relief of this most distressing symptom after ovariotomy.

CASE OF STRYCHNIA POISONING COMPLICATED WITH HEART DISEASE.

By WILLIAM HUNTER, C.M., M.D.,
Assistant-Physician Town's Hospital, Glasgow.

The following case is worthy of notice as affording the shortest authenticated period elapsing between the commencement of symptoms and their termination in death, and also the smallest dose immediately preceding fatal symptoms I can find on record. Its value, however, as an acquisition to our knowledge of the normal possibilities of the action of strychnia, may reasonably be considered to be affected by the cardiac complication, which may have led to death in a shorter time than might otherwise have elapsed.

The post-mortem observations also, as to the length of time between death and the establishment of rigidity in a veritable case of strychnia poisoning, enhance the value of this record, as on this point but little information exists, and the facts, as observed, are contrary to what might naturally have been expected to obtain in such a case.

Isabella McGregor F., aged 70, anæmic, and suffering from heart disease, applied for relief from frequent attacks of palpitation, accompanied with breathlessness. She complained also of anorexia and general debility, but was able to be up part of each day. There was a distinct cardiac murmur, the particulars of which, however, cannot now be recollected. On May 27, she was prescribed liquor strychniæ in seven and a half drop doses, in combination with chloric ether in ten-drop doses, and made up to half-ounce doses with syrup and peppermint water. These medicines were ordered to be exhibited three times daily. On the 29th (two days after) the patient became suddenly convulsed, and was seen by me almost immediately thereafter. Three convulsive attacks were observed, each lasting for about one minute, with distinct intervals of about the same duration, and consisting in clonic convulsions of the whole body, neither very rapid nor forcible, but of considerable extent of movement. The body was never bent distinctly backwards, but occasionally forwards and from side to side. The legs were generally flexed in varying degree during the attacks, and only in the intervals became extended. The arms were thrown about, and the head was occasionally retroverted, but in general was thrown forwards and laterally. The face exhibited twitchings of its muscles, which probably were not merely expressional. There was no tonic rigidity at any time, nor anything like distinctly pronounced opisthotonos. During the intervals, the patient showed herself perfectly intelligent and even conversible, and informed me that she had just taken some of her medicine by putting the bottle to her mouth(a) and permitting as much as she thought a table-spoonful to enter.

The stethoscope was applied to the heart during one of the intervals, and it was found to be acting with great force and rapidity, and somewhat tumultuously. An attempt was also made to feel the pulse, but it either induced, or was at least simultaneous with, a convulsion.

The bottle of medicine was at once secured, and, after an absence of less than five minutes to obtain an antidote, she was found, on return, to be *in articulo mortis*. The face was pale and somewhat yellowish, and the body perfectly relaxed. From the statements of a patient present at and before the period of attack, it would appear that the first convulsion occurred within five minutes after taking the medicine, which she asserts was done in the manner referred to by the patient. The bottle was found to be minus twelve doses and a half; whereas since the reception of the bottle she should only have taken six doses. This error of excess, in all probability, arose from the manner of taking the medicine rather than from an undue frequency. There had thus been swallowed ninety-four drops of the liquor strychniæ in forty-two hours, or a fraction upwards of three-quarters of a grain. How much was taken in the final dose, it is impossible to determine, but it probably did not exceed an ounce and a half, equivalent to twenty-two drops and a half, or one-sixth of a grain.(b)

Post-mortem Observations.—Fifteen minutes after death there was no appearance of rigidity nor remains of ante-mortem convulsion. Three hours after death the condition was unaltered, and in seven hours rigidity had only slightly set in, and no unusual appearance was observed.

The autopsy was unavoidably postponed, in awaiting the action of the fiscal, until the fifth day. The heart was found flaccid, and, together with the great vessels at their origins, contained very little blood and no fibrinous clots. The aortic walls, and especially the *sinus aortici*, were thickly set with atheromatous deposit and projecting plates. The mitral valve was similarly affected, though not to the same degree. There was a small warty growth on one of the aortic semilunar valves. There were no evidences of fatty degeneration of the heart, but the ventricular walls were thin and flabby. The heart weighed eleven ounces six drachms. The liver and kidneys were congested; but the spleen was small, almost bloodless, and non-friable. The backs of the lungs presented a slight degree of congestion. The head and spinal cord were unfortunately not examined.

(a) This unsought confession seems to have been prompted by regret for disobedience to the instructions of the nurse, who had entrusted her with the bottle only at her urgent request, and accompanied by a warning to take the doses by measure of the tablespoon which she always had.

(b) In Dr. Warner's case, that of the smallest fatal dose, half a grain of sulphate of strychnia was taken at once, and twenty minutes elapsed between the occurrence of symptoms and death. (Taylor's "Med. Jur." ed. 1861, p. 209.)

ON THE IMPORTANCE OF REST IN SEVERE ABDOMINAL INJURIES.

By J. R. GREENWAY, Esq.

It is always a source of pleasure to the Surgeon (varying, it may be, in degree according to his Professional zeal) when he can take the credit of having brought to a successful issue an interesting and dangerous case, and I think he should be equally pleased to admit the principle, however simple, upon which the treatment is based that leads to a successful result. I have therefore selected the following case from among others, which at present I have not time to write out for publication, as not unworthy evidence of the value of that principle so ably enunciated by Professor Hilton in the course of lectures he published some time ago "On Pain and the Therapeutic Influence of Mechanical and Physiological Rest in Accidents and Surgical Diseases."

Henry W., aged 11 years, while playing with other boys, was dared by his playmates to climb over a fence; in attempting to do so, he placed a stick (29 inches long and more than half an inch in diameter) in a position slanting from the side of the fence into the ground, and placing one foot upon a few bricks, and the edge of the other foot upon the upper end of the stick, and taking hold of the fence, the boy managed to raise himself so as to place his arms and chest on the top of it. His playmates then endeavoured to thwart his progress by pulling his clothes and the stick, which disturbed the boy's balance, and he eventually fell; in doing so, he came in contact with the upper end of the stick, which had been displaced, and was evidently in some upright position. It tore the trousers, and pierced the abdomen through the external abdominal ring. At the time of my seeing the boy, there was a good deal of blood on his clothes; he was very faint and pale, and vomited during my attendance. The stick had been withdrawn by his father, and was shown to me; about four inches of the end withdrawn was covered with blood, and at the apex presented the appearance of irregular fracture. The wound was ragged, and freely admitted my forefinger to the second joint; the intestines were distinctly felt protruding into the wound from within. There was no further evidence of a decided character as to more extensive internal injury of the peritoneum or intestines; neither could I at first positively say that no blood-vessel had been lacerated that it was important to ligature. I could not detect any foreign substances in the wound, though small portions of the boy's clothing were missing. The hæmorrhage abated, and, suspicious that some of the missing pieces of clothing might be lodged within the abdominal parietes, I simply plugged the wound with fine lint, previously wet with water, and ordered external water dressings to be changed frequently, and milk diet; the supine position was enjoined, and perfect rest secured so far as was practicable, the urine being drawn off by a catheter for a few days. The patient suffered much from pain and vomiting at times; to relieve these symptoms,

a mild opiate with chloric ether was prescribed. On the third day feverish symptoms were troublesome, but evidently attendant on a constitutional state which would have been much aggravated by depletory or depressant measures; these by degrees abated as more liberal food—eggs, etc.—could be taken and retained. On the fourth day the bowels acted naturally. There was excessive purulent discharge from the wound, which circumstance induced me to again explore the wound for any foreign substance that might be acting as an irritant therein, and this time I extracted a piece of the boy's shirt 1½ inch long, in which was embedded a splinter of wood. The wound was dressed daily as before, weak nitric acid lotion being substituted for water; the purulent discharge soon diminished; the wound granulated kindly; the dressing required, which I have spoken of as plugging the wound, was gradually less, and in a short time the parts healed up completely, and the patient returned to the enjoyment of boyish sports with undiminished activity and zeal.

Sandy, Bedfordshire.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

Hospital Cleaning—The Tent Ward—Question of Tents in the Treatment of Severe Cases—Hospital Gangrene: four Cases, one Fatal—Tetanus (Traumatic?); Recovery—Neuralgia of the Knee-joint—Treatment of Obstinate Strictures by means of Potassa Fusa—Three Important Cases of Head Injury.

At the commencement of the Summer every year it is the rule of the authorities to have a thorough cleansing of the whole Hospital, and a very careful and effective scouring-out takes place. Taking one of the three enormous wards at a time, all the patients are removed to a temporary building, the bedsteads are taken to pieces and exposed, and the bedding renewed. Meanwhile the ward itself is thoroughly cleansed and whitewashed, and as no painting is permitted for the woodwork, which is simply varnished instead, the probability of any surface forming a nidus for infection is reduced to a minimum.

The effect of the cleansing and whitewashing upon the healthiness of the wards is very striking, and it may be said, as a general fact, that whereas, after the winter session, when the wards have been compelled to be somewhat closed for warmth's sake, the dampness and increasing heat of the spring bring with them a train of diseases peculiarly fatal in Hospitals, the spread of these dreaded visitors is immediately checked, and we see no more of them after the laborious "May fever." We cannot speak too highly of the indefatigable manner in which these sanitary arrangements are carried out by the matron (Mrs. Wardroper) and the steward (Mr. Walker), and the Hospital must congratulate itself on possessing the services of a lady of such ability and energy as the former.

The cleaning is now going on at St. Thomas's, and the temporary building into which the patients are drafted, and which is called the tent ward, suggests a few remarks. It is a long building containing forty-two beds, and is covered in by a watertight tarpaulin, which in its turn is lined by canvas, the space between the two coverings affording ventilation, besides helping to protect the ward from the extremes of heat and cold. There is a single row of beds on each side, and upon entering the end of the ward, the appearance of the whole, the deck-like flooring, and the smell of the tarpaulin, forcibly remind the visitor of being on board ship.

This temporary building has to be put up every Spring, probably at a heavy outlay, and is then demolished at the end of a few weeks. How far a large tent like this, if permanent, might be utilised for special cases is a highly important question in the present day; for an opinion prevails extensively among scientific men that cases of a severe type, of an infectious character, would be placed under much more favourable circumstances if removed to the open air. At a meeting of the Statistical Society a few weeks back, it was stated by Colonel Sykes, and corroborated by others present, that all severe cases of injury during a campaign did far better when a tent was thrown over them on the field than when removed to Hospital; and he said that, acting upon the suggestions of his Surgeons, he had always adopted this plan where practicable. In one of the reports upon the Surgery of the late American war, it is a fact worth recording that of cases removed to Hospital and treated there, 5·5 per cent. were fatal; whereas the mortality was almost exactly the same among those left out on the field, without any protection, exposed to the inclemency of the weather, and otherwise placed under what would be considered unfavourable circumstances. During the summer months could not these warnings be turned to a practical account in our metropolitan Hospitals?

Since the Hospital has been in its present situation, not a single case of Hospital gangrene has occurred until a few weeks ago, and for this immunity great praise is due to the civil authorities for their sanitary arrangements. The present season has been marked in this neighbourhood by the prevalence of miasmatic diseases, especially scarlatina, which has carried off one of the House-Surgeons, to the personal sorrow of all connected with the institution. To the vitiated state of the atmosphere may possibly be attributed the late slight epidemic of hospital gangrene, the facts of which are subjoined.

On January 26, after one or two cases of scarlatina had appeared in the wards (imported originally by a patient), a man was admitted with a foul ulcer of the leg in a syphilitic constitution. This improved for a time, but at length took on an unhealthy action, and became pronounced hospital gangrene on April 2. Close to the back of this bed lay an old man also with an ulcer of the leg, which had been reduced, however, in size from seven by five inches to a mere line by means of rest and treatment, but his constitution was poor and his age advanced. This was the second case in which the disease appeared, and the sore in a few days exceeded its original limits.

Passing by a patient who showed extensive wounds in the thigh after operations for necrosis, the disease attacked a boy whose leg had been operated on a few days before for necrosis also, and lastly appeared in a man close by, whose groin was ulcerated and his system tainted with syphilis.

These four cases were at once removed to a special ward, the wounds freely cauterised with strong acid, and a liberal supply of wine and tonics ordered. A marked improvement at once followed.

The temperature, taken upon the day the disease was pronounced, showed a curious parallel in the three successful cases, the thermometer standing at 100·40° to 100·60° F. in the axilla, and the pulse being soft and small and 120 to 150 per minute. In the other case, that of the old man second attacked, the temperature was only 97°, and the pulse only 90, jerking and rather full.

Improvement continued in the three cases, and after the separation of large scales of bone from two, they have become convalescent.

In the other patient, however, the temperature continued to fall, and the wound did not present a healthy surface after the separation of the slough produced by the nitric acid. Instead of this, the sore was dry and ultimately black, the tendons stood out like cords above the level of the wound, and on the twenty-third day, at which date the temperature was at its minimum (95·60°), copious hæmorrhage took place from the anterior tibial artery. The vessel was with difficulty tied, but he sank on the thirty-seventh day.

At the post-mortem examination next morning the body was found in a state of rapid decomposition, the smell from it rendering the room almost unbearable; but beyond the condition of the leg, and a moderate amount of atheroma of the vessels, no morbid appearances presented themselves.

In each case the disease was ushered in by chills, languor, and lumbar pains one or two days before the gangrene manifested itself.

In the Medical wards under the care of Dr. Barker, there has lately been a case of peculiar interest. It was a successful case of tetanus, and, as it followed upon a blow on the spine, would rather come under the category of Surgical patients. We are indebted to the kindness of Mr. Hague, the Medical Registrar, for the following report; but as, doubtless, the case will be published *in extenso*, we will merely give an outline of it:—

W. S., aged 28, a labourer, was admitted February 13, under the care of Dr. Barker, with symptoms of tetanus. He was a strong healthy-looking man. He had received a blow from a falling plank between the shoulders about three weeks before, but did not then take much notice of it, and when seen no local evidence of injury was visible. Three days ago

he was seized with "cramps" in chest and abdomen, and soon after pains in the whole body. He found a good deal of difficulty in swallowing. On admission he had marked opisthotonos and well-marked *risus sardonicus*, and these occurred readily upon exciting him by talking or by moving or examining him. The teeth were firmly clenched, and his breathing was impeded. The temperature in patients suffering from tetanus has been stated to be extremely high, but neither in this nor in any of the instances which have occurred at this Hospital has it risen to any inordinate degree. Here it was found to be at first 100·2° in the axilla, and never rose above 101·2°, which was on the eighth day, when his symptoms had considerably abated. After that date it fell rapidly, and remained for some time rather below the healthy standard. As he progressed the spasms became less frequent, but at the same time apparently more painful, and sleep was more easily obtained. The bowels were, as usual, very obstinate, but acted after frequent doses of croton oil and the use of enemata. The skin acted very freely the whole time, and he was constantly bathed in a profuse, rather sour sweat. When able to walk he complained of great weakness in his lower extremities and pain on using them, but no permanent paralysis followed —a point which was watched with some curiosity on account of its bearing upon the pathology of tetanus, which Mr. Lockhart Clark has so carefully investigated.

The treatment adopted by Dr. Barker was the frequent use of purgatives when the bowels were inactive, and the exhibition of the tincture of cannabis indica in drachm doses every hour. The latter does not seem to have had much effect upon the disease.

Under the care of Mr. Solly is a curious case of neuralgia of the knee-joint in a woman aged 34, married, and having four children, the youngest of whom is 5 years old. Four years ago she fell and struck her knee with violence against a stone, and since that time she has been unable to stand upon it. The symptoms she has been complaining of are constant pain under the patella, not periodic, but gnawing and always present, gradually increasing, and utterly prostrating her. On admission there was no deformity visible, and no absolute evidence of pain could be elicited on manipulating the knee in any manner. It certainly was rigidly contracted, but this was all owing to spasm of the muscle, and could be readily overcome by gradual traction and diverting the mind of the patient. There was no history of joint inflammation; neither, on the other hand, was there any decided evidence, but rather the contrary, of a naturally hysterical constitution. The result of treatment was indicative of the absence of inflammatory disease, for the effect of a course of active antiphlogistics with counter-irritants while under Mr. Syme, in Edinburgh, was to aggravate the pain and reduce the patient, from being a stout hearty woman, to her present emaciated state. Under a course of quinine with nourishing diet she has improved slowly, and is still progressing.

We may introduce to notice a few cases of intractable forms of stricture under the care of Mr. Le Gros Clark, in which he has made use successfully of the potassa fusa, instead of the mechanical dilator. His instrument consists of a slightly curved sound, on to the end of which can be screwed the hollow tip containing the caustic. This tip is shaped like an elongated and perforated Minié bullet, the perforation small and central, so that the caustic can act only upon the spot which is pressed firmly against by the point of the instrument. By this means the action of the potassa is limited, and healthy tissues are not liable to be injured.

Mr. Clark is of opinion that this treatment is more rational than forcible rupture, on account of its removing, in the first place, those inflammatory deposits which are the immediate cause of the stricture—removing them, too, the more readily, since they are of low organisation; and, in the second place, because the caustic gives rise to little injury beyond the diseased parts, and is not followed by increased inflammatory deposit and a recurrence of the stricture. For the latter reason he prefers gradual dilatation for the treatment of ordinary cases of stricture, absorption of the surrounding fibrinous deposit occurring from the pressure, whereas with rupture there is rather a tendency to the increase of the deposit from the injury done to the parts.

Case 1.—H. M., aged 40, a coachman, admitted September 13, 1866, under Mr. Clark's care (dresser, Mr. Anderson). History of gonorrhœa, fifteen or sixteen years ago. Stricture noticed during the last three or four years, gradually increasing. Retention frequently, especially after drinking any quantity of liquid, during the last two or three months. Admitted for retention. No. 1 catheter passed with great difficulty. Stricture double. The first half-way down the spongy portion, and the second at the membranous portion of the urethra. The latter very intractable. On account of the slow progress of the case, the potassa fusa was used on October 1, and passed the first stricture. On October 15 it was again used, with steady pressure against the second stricture, and soon after this a No. 8 gum elastic catheter was passed into the bladder.

Case 2.—W. P., aged 36, a smith, admitted November 15, 1866, under Mr. Clark's care (dresser, Mr. Anderson). History of gonorrhœa. Stricture noticed three months. No retention. Stricture very irritable, bleeding readily on the introduction of a catheter, which could not, however, be passed into the bladder. The stricture was long, and situated in the spongy portion, just anterior to the bulb. There was a good deal of thickening felt externally. On November 26 the potassa fusa was used. Again on the 29th, and on December 3 and 21. Between these applications pressure was made, as usual, about every other day against the softened stricture by a No. 8 catheter. On December 31 No. 8 was passed into the bladder.

Case 3.—T. W., aged 27, a soldier, admitted November 24, 1866, under the care of Mr. Clark (dressers, Mr. Anderson and Mr. Mitchell). History of gonorrhœa twelve months previously. No history of syphilis. Admitted for sloughing of the scrotum after exposure to cold. No urinary fistula at first, until the scrotum healed over. The stricture was long and twisted, and situated about the membranous portion of the urethra, not permitting the passage of a catheter. On April 30 Mr. Clark used the potassa fusa, and again May 6 and 20. The stream has greatly improved, but no catheter has been passed into the bladder up to the present time, but it is expected daily. A little pain is generally felt after the use of the caustic, but this does not last long, and occasionally there is a little bleeding. About a week or a fortnight is usually allowed between successive applications.

These cases will, we imagine, be sufficient to show that in caustics, applied carefully and with sufficient precautions to avoid injury to healthy tissues, we have a valuable agent for the relief of those forms of stricture which are most intractable to ordinary means of treatment.

The following cases of severe injury to the head are of considerable importance in their bearing upon prognosis in similar cases. From the severity of the symptoms in two out of the three at the time when they were admitted, it could not be expected that any probability existed of their recovery; whereas, in the third case, there was evidence of drunkenness, and the symptoms on admission were no more than were compatible with that condition.

Case 1.—G. R., aged 20, a carman, admitted April 1, under the care of Mr. Simon (dresser, Mr. Fairbank). He had been thrown from a cart and pitched on his head; the wheel then passed on to his head, but was backed off again. The nature of the injury was, therefore, both lateral and vertical pressure. He was slightly stunned, but was sensible, though collapsed, on admission. There was copious hæmorrhage from both ears without obvious laceration, and this continued during the rest of the day. There was bleeding also from the nose, the conjunctivæ were suffused with blood, and during the three hours after his admission he vomited about two pints of black clotted blood. At the same time there were no symptoms of compression; he soon recovered his sensibility, and beyond a little headache for the next fortnight and a little singing in the ears, he was free from any head symptoms whatever. The oozing ceased next day, but suddenly reappeared on the sixth day, lasting then about twenty-four hours. There was neither deafness nor facial paralysis. The treatment was perfect quiet, shaving the head, and the application of ice. He left the Hospital well in twenty-four days.

Case 2.—F. T., aged 11, admitted March 1, under Mr. Le Gros Clark (dresser, Mr. Air). He had fallen down the main drainage works, striking his head, and was admitted in a state of collapse. The pupils equal, but dilated, the surface pale and cold, and the pulse hardly perceptible. There was copious hæmorrhage from the left ear, and during the night after admission he vomited a large quantity of half-clotted, half-digested blood. His limbs were firmly flexed, and could not be extended, and for six hours he remained senseless and in this condition. The next day, however, he became sensible; the oozing from the ear became serous, and ceased by the fourth day; but he remained in a most irritable, peevish state,

and apparently with increasing deficiency of intellect, for the next six weeks, although he was stated not to have been dull or ill-tempered naturally. At the end of that time a small abscess was opened behind the left ear, and after this he at once improved, though the insignificance of this abscess would hardly account for the persistence of his head symptoms. There was no permanent injury to the seventh pair of nerves, and he is now quite well and running about the wards.

In neither of these two cases was there any scalp wound or unevenness of the skull, though in each case fracture of the base was suspected.

The following forms a contrast with these :—

Case 3.—J. F., aged 62, a conductor, admitted April 10, under the care of Mr. Le Gros Clark (dresser, Mr. Pern) ; had fallen from the top of his 'bus while drunk, and struck his head on the road. He was stunned for a few moments, but soon recovered, and on being brought to the Hospital was very noisy and troublesome. He had then a small wound over the left parietal eminence, not leading the finger to any fracture or exposed bone, but, being drunk, and having met with an injury to the head, the House-Surgeon, Mr. Waller, very properly admitted him. He continued very noisy during the night, and next morning was dull and difficult to rouse, his pupils contracted, and his breathing heavy. The temperature in the axilla was above the standard, and continued to rise rapidly, till on the day of his death it was registered at 104° F. On the second day after admission there was a faint suspicion of paralysis of the left side of the face—*i.e.*, on the same side as the scalp wound—and on the fourth this was evident, for on that day he was seized with a severe convulsive fit, lasting a few minutes, with spasmodic contraction of the right side, while the left lay inactive. He became insensible after this, and died comatose on the fifth day. Mr. Clark stated his opinion that at the post-mortem there would probably be found extravasation of blood at the *contre-coup*—*i.e.*, on the right side—with laceration of the brain at the same part. The gradual and increasing extravasation would account for the gradual coma and paralysis of the left side, and the laceration was suggested by the convulsive attacks on the fourth day. This was found after death to be the exact condition of the brain, and at the same time an extensive fracture involved the base of the skull.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from vol. i. 1867, page 715.)

Case 86.—*Non-adherent Cyst—Once Tapped—Ovariotomy—Death on the Fourth Day.*

A WIDOW, 34 years of age, who was married when 20 years of age, had a child, and lost her husband within a year of marriage, and had since been employed in hotel service, was admitted in November, 1866. She had been well until three months before admission ; she then began to increase in size, but without pain. For the six weeks before admission increase had been rapid. The catamenia were regular and normal ; the whole abdomen was filled by an ovarian cyst, and as it appeared to be uniloeular, she was tapped on November 24, and nineteen pints of clear fluid were removed. After the tapping the collapsed cyst and some secondary cysts could be felt in the left inguinal region. She left the Hospital on December 1, and filled rather fast for three weeks. Then, on the night of December 22, she had a long and severe attack of vomiting, and began to pass large quantities of urine—a gallon and a half in half an hour. Two days after this the abdomen was much smaller—she said seven inches less in girth by measurement. She began to increase again, and was readmitted January 13, 1867, in good general health, but with the whole abdomen filled by an ovarian cyst. The uterus was normal and movable, and the tumour could be felt to the left side of the uterus, as if the connexion were close, especially towards the front.

Ovariotomy was performed on January 16. A non-adherent cyst was easily withdrawn, after being emptied, through an incision four inches long. A pedicle about two inches broad was first secured by a small clamp very near the right side of the uterus ; but as this exerted too much traction on the uterus, the cautery clamp was applied, and the stump burnt off. On loosening the clamp, bleeding at once took place from the seared surface. The pedicle was accordingly transfixed and tied in two portions. Two vessels were also tied separately. All the ligatures were cut off short, and returned with the tied pedicle. The left ovary was healthy. The peritoneal cavity was carefully cleansed from blood by sponging, and the wound was closed in the usual manner.

Symptoms of general peritonitis set in soon after the operation. Temperature, pulse, and respiration all rose rapidly, and vomiting came on, with much pain. Relief followed opiate injections, and the kidneys and skin secreted freely ; but vomiting persisted. This was checked on the first day after operation by the application of Dr. Chapman's ice-bags to the spine ; the second day she objected to them, said they made her feel worse, and she vomited while the ice-bag was on the spine. On the morning of the third day, injections of quinine were begun by rectum and subcutaneously. Cinchonism was induced before night, and the pulse had fallen from 150 to 126 ; but she gradually sank, and died on the morning of the fourth day. The following table gives the range of pulse, respiration, and temperature on each day :—

	Temperature.	Pulse.	Respiration.
Morning before operation	99·4	88	22
Evening after operation	100·4	104	24
First day, morning	101·8	116	28
Do., after ice-bags	99·0	120	28
Second day	102·2	136	32
Third day, morning	102·0	150	irregular.
Do., after quinine.	—	126	do.

No post-mortem examination could be made in this case.

The fluid removed from the cyst measured eleven pints. The emptied cyst weighed eighteen ounces. It consisted of one large bag, into the cavity of which several clusters of secondary cysts containing viscid colloid fluid projected. Fatty metamorphosis had commenced in several parts of the cyst wall.

Mr. Wells remarked on this case that it was one where the clamp caused some pull on the uterus, but not more than he had often seen without ill-effect. The occasional ill-effects observed, however, had induced him to try the cautery. This failing to check all hæmorrhage, the application of ligatures and the removal of the blood, with the return of the pedicle into the abdomen, had been the causes of the fatal peritonitis. All his experience of different *intra-peritoneal* methods of dealing with the pedicle was leading him more and more decidedly to prefer the *extra-peritoneal* treatment wherever it could be carried out.

Case 87.—*Multilocular Cyst—Four Tappings—Ovariotomy—Recovery.*

A married woman from Tenby, 47 years old, went to the Cheltenham General Hospital, and was tapped there in November, 1866 ; she returned to Tenby, but went again to Cheltenham in February, 1867, on her way to London to consult Mr. Wells ; but she was so large and ill that it was necessary to tap her again. After this she came to London, and was admitted to the Samaritan Hospital in March. She had been married fifteen years, and had three children, the youngest seven years old. The whole abdomen was filled by an ovarian tumour. The measurements on March 17 were :—Girth at umbilicus, 43 inches ; from umbilicus to sternum, 12 inches ; to symphysis pubis, 11 inches ; to right anterior superior spine of ilium, 11 inches, and to left, 12 inches. The uterus was normal in position, and freely movable ; length of cavity, 3½ inches ; os open ; cervical canal villous ; the catamenia were still regular, and latterly had recurred every three weeks. The increase in the abdomen began early in 1865, but was slow for twelve months. Then it became more rapid, and she was tapped in March, 1866, 20 pints of fluid being removed ; at a second tapping, in July, 14 pints ; and at the tappings in November, 1866, and February, 1867, at Cheltenham, the amount was 18 and 13 pints. Uterine discharge persisted for some days after admission to the Hospital, and only ceased on March 19. Ovariotomy was performed on the 20th. An incision five inches long, between umbilicus and pubes, exposed a cyst, which adhered very firmly for about two inches square around the site of the tappings, but not at all elsewhere. A large cyst was tapped and emptied ; the cyst wall drawn out, opened, and other inner cysts broken up, their viscid contents pressed out, and the whole removed without any fluid entering the peritoneal cavity. A rather thick pedicle was secured in a middle-sized clamp, about two inches from the right side of the uterus, and kept outside with very little traction. The left ovary was healthy. The wound was closed as usual. The

quantity of fluid removed was seventeen pints; the cyst walls and semi-solid matter weighed nearly seven pounds. The tumour may be briefly described as an excessive growth of all the natural structures of the ovary, the Graafian vesicles especially being developed in an excessive degree.

Only two small opiates were given after operation. There was no vomiting. All the stitches except the lowest were removed on the third day; the clamp and the lowest stitch on the sixth day. The highest range of the pulse was 104; temperature, 99·2; and respiration, 24. She left the Hospital in good health twenty-four days after operation.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, JULY 6, 1867.

DR. BARNES'S LECTURES ON OBSTETRIC OPERATIONS.

We are sure that our readers will be gratified at seeing in the pages of the *Medical Times and Gazette* a series of lectures upon operative midwifery; and any one who practises that department will readily understand why, in our anxiety to provide the most suitable *pabulum* for our readers, we endeavoured to bring this special subject before them. The current practice in this town is considerably in advance of what is taught in any, even of our most recent, English text-books. A spirit of revolt has for some time been, not altogether silently, working against the timid and restrictive—shall we say insular?—dogmas that were taught *ex cathedrâ* not twenty years ago, and which still appear in standard works to represent the actual practice of this country. We believe there are few British teachers who would be content to be so judged. It appears to us, therefore, that the time has come for giving a systematic exposition of the modern practice of scientific Obstetric Surgery as distinguished from mere midwifery. Obstetric Surgery, like many other things, has taken the stamp of national characteristics. There is an English school, a French school, a German school, an Italian school; and there are subdivisions of each, bearing distinctive local features. These schools differ, sometimes widely, in doctrine and practice. Does not one common nature rule over all nationalities? Those, whether Britons or foreigners, who had the good fortune to witness the marvellous exhibition of obstetrical instruments held last year at the College of Physicians, in which the practice of past and present times, at home and abroad, was symbolised and placed before the eye in contrast or comparison, must surely have seen reason to doubt whether all truth belong to any one nation or school. They must have seen something good, something worth borrowing, and may, perhaps, have suspected that they had been cherishing creeds and prejudices which it might be useful to revise. We are certain that the opinions and practice of many thoughtful men, pondering upon what they then saw, have already undergone modification.

It may, perhaps, be conceded that the task of presenting a conspectus of modern obstetric operations may be confided without hesitation to the Professor whose lectures will appear in our pages. We believe that Dr. Barnes has, in a spirit of candour and independence, sought to profit by the teachings of his brethren, foreign and native, and has availed himself of very large opportunities of putting these teachings and his own ideas through the crucible of experience. We do not doubt that the feeling which animated the Obstetric Society in electing Dr. Barnes as their President will be justified by the cordiality with which these lectures will be received by our whole circle of Professional readers.

NOTES ON MEDICAL EDUCATION.

THE SYSTEMS OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

Now that the members of the Medical Council have again met, and again approached the subject of Medical education—a subject which seems to embarrass them greatly—we purpose, in a few short articles, to compare the working of one of the most perfect educational systems (regarded merely as a system), with which we are acquainted, with that desultory, fragmentary, and highly unsatisfactory scheme of Medical education which we follow in this country, and which it is almost a misnomer to call a "system" at all.

It would be difficult, we presume, to find a single individual, knowing anything about the working of our Medical schools, and whose opinion therefore would be worth anything, who would express himself content with the existing state of Medical education in England. Indeed, it is doubtful if our Medical teachers can honestly lay claim to the merit of "educating" at all, in the true sense of the word. That pupils have to attend a certain number of courses of lectures is true enough; or rather we ought to say that they have to obtain certificates of having attended such courses, for in some schools the trifling formality of attendance is dispensed with. Can this, by the widest stretch of imagination, be called an *education?*—which word we take to mean a systematic training of all the faculties of the mind and senses to the special purposes to which they are, in after life, to be applied. It must, we believe, be generally granted that our system has no such lofty aims.

So much being admitted, we next reach a very practical question. Are things to be allowed to remain as they are, in their confessed badness, or shall we seriously and earnestly attempt some reformation? If the latter alternative be accepted, we then meet another practical question. How is this reformation to be effected? Does there exist any system of Medical education which we may do well to strive to approach or imitate?

Our mind much occupied with questions of this kind, we devoted a considerable period in the spring of the present year to an investigation into the system of Medical education which is adopted in France, and especially as it may be studied in Paris. We were fortunate in having access to many valuable sources of information, and to persons who were able and disposed to give us reliable information as to the workings of this system. We propose to place before our readers the information we thus obtained; and we shall take the liberty of pointing out those details which appear to us deserving of imitation in this system, and others which we think it better to avoid. In either case the experience will be valuable. The differences between the respective schemes of Medical education in England and France are marked and striking. They proceed chiefly from this circumstance—that in France everything which concerns the education for degrees or diplomas of any kind, whether in Medicine, law, science, or literature, is under the immediate authority, direction, and supervision of the State. In this respect the French Government is truly paternal. In England, as every one knows, the State leaves these matters

almost entirely in the hands of private individuals, or to certain corporate bodies which have, at various periods, obtained charters permitting them to confer degrees or grant diplomas. We doubt if the cause of education is much benefited by this comparative freedom—by this indifference on the part of the State. In matters of this kind, it appears to us that our Government avoids its just responsibilities, and that national education generally, and Medical education especially, suffer considerable injury and impediment by being left to the direction and control of comparatively irresponsible corporate bodies, swayed, as they too commonly are, more by private interest and personal feeling than by that single object which characterises every sound government—viz, the public good. It is true we have a Medical Council, but who knows or can define its powers? What influence has it in the State? What influence has it over educational institutions? Are its members satisfied with the functions they exercise? It is true, indeed, that the Medical Council can issue recommendations to the different examining boards or to the various institutions engaged in Medical education. But can they enforce the adoption of these recommendations? We imagine that it would be found very difficult to do so.

Centralisation, responsibility to the State, State patronage and direction, are the great characteristics of the system of Medical education in France. Unlimited subdivision, almost entire irresponsibility, total absence of State patronage and direction, are the prominent characteristics of the system of Medical education in our own country.

We may take this opportunity of stating, once for all, that we have no intention of advocating the subjection of our educational system unreservedly to the control and direction of the State. Such a condition of things, however tolerable and even advantageous in Continental States, would, we are convinced, be found greatly at variance with the liberal spirit of our own free institutions. But we wish to express most seriously our strong conviction that there exists an urgent necessity, at the present time, for *voluntary* effort and *voluntary* combination, for the purpose of endeavouring to imitate, in a certain measure, that centralisation, that wholesome concentration of talent and effort, which form the most admirable characteristics of the French School of Medicine.

If, from opposing influences of a personal and private nature, we are unable by voluntary association and voluntary effort to effect this most desirable change, then we shall be disposed to contend that free institutions are not so favourable to the promotion of a sound educational system as an arbitrary but paternal and enlightened Government.

Seeing, then, that in France the State undertakes the entire control and direction of the education of the aspirant for degrees or diplomas in Medicine, let us, in the first place, examine a little in detail the arrangements which are made by the Government for carrying out this object. There are established in France three great Schools or Faculties of Medicine, each of which has the power of granting degrees, and at one or other of which the course of instruction necessary for obtaining those degrees must be followed. One of these is at Paris, another at Strasbourg, and the third at Montpellier. Besides these there are twenty-two *preparatory* Schools of Medicine, at which the student may receive a portion of his Professional education. They are established in the following towns:—Alger, Angers, Amiens, Arras, Besançon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Limoges, Lille, Lyons, Marseilles, Nancy, Nantes, Poitiers, Reims, Rennes, Rouen, Toulouse, and Tours.

In the remarks we have to make we shall deal almost exclusively with the Faculty of Medicine of Paris, a description of which will apply with tolerable accuracy to either of the other two Faculties. This is the *only* body in Paris authorised to confer degrees in Medicine or to undertake the education of the Medical student. Centralisation has here reached its highest point—*one* school, *one* staff of professors, *one* lecture theatre, *one* museum, *one* library, *one* dissecting room for all Paris, with its motley crowd of students, French, German, English, and American. What a striking contrast is this to the mode of teaching Medicine in our own metropolis! What a contrast to the subdivisions of our Schools of Medicine! Why, we know of three Medical Schools in London that we can pass in a quarter of an hour's walk, and if we were to enter the lecture-room of two of them we should most probably find an average attendance of eight or ten students, in some of the classes certainly not so many.

What a dull heavy business it is lecturing to an audience of half-a-dozen students, many of us unhappily know too well. What a contrast to an audience of 1200 pupils such as we have seen listening with rapt attention to a course of lectures on pathological anatomy in the amphitheatre of the School of Medicine at Paris! Which system is most deserving of imitation? Which system, regarded from a purely educational point of view, is the best? Leaving personal interests entirely out of the question, considering only the advantage of the student, which arrangement is preferable—the small class-room with its ten or twelve drowsy students and languid lecturer, or the large amphitheatre with its thousand or more pupils and an energetic lecturer?—energetic because of the largeness of his audience; for who can be energetic to rows of empty benches? Who can lecture well without an audience? We can conceive of but one answer to all these questions. A system which tolerates the existence of a number of small schools, with divided resources and a very limited amount of talent amongst the teachers—which, by the way, is a necessity; for since there can be but a limited number of teachers of talent in one city, therefore the greater the number of schools, the smaller proportion of teachers of ability each must necessarily possess—such a system must, we unhesitatingly assert, be vicious, and can have no recommendation but the very lowest—viz., personal interest. It owes its existence to mere selfishness, a vice which unhappily puts on such various outward aspects that it is often difficult, at first sight, to recognise its unattractive features under its strange and often alluring disguises. It is to this system we owe the existence of professors of botany who are not botanists, professors of physiology who are not physiologists, and professors of chemistry who are not chemists. We remember, in quite recent times, the circumstance of a professor of botany at one of our metropolitan Medical schools being transferred to the chair of Midwifery at another! While, at another school, the teachers of botany and anatomy were represented by the same person!

A remedy for many of these evils would undoubtedly be obtained by introducing into our own system of Medical education a little of that principle of centralisation which we have seen in its highest development in the French Medical schools; and we take this opportunity of earnestly urging the Medical Council to take seriously into consideration the advantage of promoting the greater centralisation and concentration of the Medical Schools of London. We shall take a future opportunity of pointing out in what manner we consider this very desirable end may best be accomplished. Teaching talent and teaching power, we are persuaded, are not wanting amongst us, nor is there wanting a disposition on the part of pupils to listen to teachers who will take pains to teach well; but while we do nothing to promote the development of such talent and such power, it is not to be wondered at that at the present time they are "conspicuous by their absence."

In our next article we shall speak of the composition of the professorial staff of the Faculty of Medicine at Paris, their mode of appointment, duties, fees, and the subjects of the courses of lectures which they deliver.

THE RIVER LEE AS A SOURCE OF WATER SUPPLY.

The Report of the Rivers Commission on the Pollution of the River Lee contains facts of grave significance, bearing not only upon the water supply of half the population of London by the two great Companies which draw from the Lea, but also upon the supply of the whole metropolis.

The custom of drinking water from a river which is a highway for traffic, and into which human excrement and all manner of nastiness find their way, must, one would think, occur to most people as incredibly disgusting—more befitting a tribe of Yahoos than civilised Englishmen of the nineteenth century. Yet the practice is almost universal; and the mischief is, that with the increase of the number of people to drink, the amount of river pollution has gone on intensifying until, in some instances, what should have been streams guileless of human contamination have become common open sewers, Stygian currents foul and loathsome to every sense.

State action on matters of mere domestic interest, especially those relating to hygiene, is apt with us to come late into play; and the announcement, in May, 1865, that a Commission was appointed to inquire into the best means of preventing the pollution of rivers seemed almost too good to be true. Our good genius being for the nonce in the ascendant, the inquiry was entrusted to Mr. Rawlinson, C.E., Mr. Harrison, and Professor Way, who set straightway to work upon the Thames, thoroughly examined its condition, and early last year formulated a system of treatment, which the Legislature subsequently enforced by enactment. Everybody must heartily wish the venerable patient a speedy restoration to his pristine health and beauty.

The alarming symptoms displayed by the River Lee in the summer and autumn of last year naturally attracted the attention of the River Commissioners, and determined them at once to make that river and its tributaries the subject of investigation. Their Second Report shows clearly enough how urgent is the need for steps to be taken to put an end to the wholesale pollution which has been, and now is, going on along its course. From its source, in Bedfordshire, beginning with the "clarified" (?) sewage of the 20,000 inhabitants of Luton, down to the hither side of the East London Water Company's intake at Ponder's-end, sewage and manufacturing refuse (including various metallic salts, dye-stuffs, brimstone, oxalic acid, and arsenic from the sheep-washings) are poured into the river, with here and there a pretence of clarification—as if the fluid impurities were not as objectionable and dangerous as the solids. From Ponder's-end "the river ceases to be a source of water supply, and becomes in a great degree like an open common sewer," getting from the one single outlet of Catchwater Dyke the sewage of Enfield and five other places "in its original condition, unmitigated by any process except so far as it has undergone oxidation in its course along the open ditch." Then there is Tottenham, and afterwards the West Ham district, discharging enormous volumes of sewage into the river, to be churned backwards and forwards by the tide through the heart of a densely populated district.

For preventing sewage pollution or the discharge of manufacturing refuse, the Commissioners recommend a system of rigid conservancy similar to that now established for the Thames, with full and summary powers to restore the river to a comparative degree of purity, and to carry out such improvements in the matter of embankment and drainage of marsh lands as may be necessary.

Of the two water companies which take their supply from the Lee, the New River Company draws an average of 18,000,000 gallons per diem, from a point between Hertford and Ware, where the minimum flow is stated to be about 27,000,000 gallons. This Company, by the additional help of springs and wells, is enabled to supply a volume of 35,000,000 gallons per day if necessary; the average daily supply in December last was 22,500,000 gallons, of which 2,300,000 were used for trade purposes. There was thus passed into the 112,000 houses supplied, a daily quantity for domestic purposes equal to 24 gallons for each unit of the population, "yet by experiments with model lodging-houses, where a constant supply was given for all requirements, the inhabitants, it was found, did not consume more than about seven gallons per head." Some 1200 or 1300 houses are supplied by the Company on the constant system; the general supply is intermittent for about thirty-five minutes, six days in the week, although many inferior houses have a supply on Sundays. "The time the water is turned on seems, however, in some respects to be left *to the discretion of the turncock*, who is expected to fill the cisterns of ordinary capacity." The Company's liability ceases with the delivery of the water, the landlord or tenant having to provide and maintain the means of storage, which are, in numbers of instances, of the worst possible description. "At present," say the Commissioners, "the eastern part of the metropolis has a daily volume of water poured in, far more than careful experiments prove to be necessary for all purposes; and yet so wretchedly defective are the landlords' arrangements for storing water, that there is a water famine, and the complaints are constant, very loud, and very angry." The pollution of the Lee above the source of the New River Company's supply is very considerable; the conduit which conveys the water to the filtering beds and to New River Head is 28 miles in length, and is said to be "preserved free from pollution," its bed being the natural subsoil, unprotected either by masonry or concrete. The amount of sediment in the subsiding reservoirs is stated by the engineer, Mr. Muir, to be small, and the filtering is simply through sand filter beds, which have been in use since 1856. "Charcoal filtration has been tried experimentally, but, supposing it to be practically successful, the engineer estimated that it would cost the Company not less than £94,000 if permanently adopted, and that this would be too great an outlay."

The East London Company began business in a very small way by purchasing two old works at Shadwell and West Ham. The Company's Act was obtained in 1807, and they took water from the open tidal river at Old Ford until 1825-26, when the intake was removed to Lea-bridge, whence the water was brought down in an open conduit to the now celebrated open reservoirs at Old Ford. The intake is now at a point near Ponder's-end, where the water is less pure, by reason of additional pollution, than that drawn by the New River Company higher up the stream; but the large accession of fresh water from the land springs which break out from the chalk into the bed of the river between Hertford and Ponder's-end, to some extent restores the balance of purity in the comparative sources of the two Companies. The East London Company has gone to great expense in works for the interception of sewage from their portion of the Lee, and they are now asking Parliament for further powers in this direction. Purification of the water taken for supply is by the ordinary process of sand filtration, which is said to be "conducted successfully, though at some seasons under difficulties," arising from the rapid growth of weeds on the sand of the filter beds, especially in summer. The daily supply is about 20,000,000 gallons for all purposes; excluding the trade supply, an average of 18½ gallons is given for each head of population. The supply is partly constant, but chiefly intermittent, on six days in the week, Sunday being a *dies non*. As in the New River district, the storage arrangements of the poorer consumers are most defective and objectionable. "Some tanks are placed over the water-closet and dustbin, and the open tubs stand in small crowded yards, exposed to any dirt, dust, or atmospheric contamination there may be."

With regard to the capability of the Lee to meet the increasing demand for water in the Eastern districts of London, the Commissioners have come to the conclusion that

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the limit of supply from the river has been fully reached, without the construction of an immense system of storage reservoirs for flood waters, which would probably be found impracticable. The East London Company's engineer admitted that at times he has been very short of water, and that in a dry season the limit of the Lee had been reached; consequently, he is seeking Parliamentary powers to extend the life of the Company by helping himself to 10,000,000 gallons daily from the Thames. Mr. Greaves was asked whether, in the event of his not getting the Thames water, it would be possible by works within his reach to get a larger volume of water from the Lee; and his reply was that he could not hope so to obtain any such additional quantity as 10,000,000 gallons per day in dry weather. Another question which the Commissioners had to consider was "whether the water of the Lee Valley, when its collection and transmission to the metropolis have been surrounded by all practicable safeguards from pollution, will be of such a quality as to satisfy the reasonable wants of the population." The great bulk of the water contributed to the River Lea is derived from the chalk, and the effect of its contamination from external sources is exhibited by contrast with the water of the New River, which contains less than half the organic impurity found in some of the other samples. "The New River owes this superiority partly to its being to a great extent derived from springs flowing direct from the chalk, and partly to the fact that the aqueduct by which it is brought to the metropolis is devoted to no other purpose than that of a water-carrier, and is most jealously guarded from pollution in its course." The Commissioners, therefore, conclude that a great improvement in the purity of the Lee may be secured by a system of protection such as was inaugurated for the Thames last session, and they advise the early action of Parliament in the matter.

The water supply of towns in the basin of the Lee is, notwithstanding that water is abundant throughout the valley, very deficient, and sickness is distinctly attributed to the use of well-water polluted by cesspools. At present the exclusive right to use the water of the Lee is in the hands of the New River and East London Companies, whose mains are accessible at Tottenham, Edmonton, and other towns, but are used in a limited degree, apparently on account of the rates charged.

After stating that much of the water now supplied to the metropolis is wasted owing to the absence of proper means of distribution, the Commissioners conclude their report with the recommendation, "That legislative measures be passed to render it compulsory upon each Company to supply water upon the 'constant system' throughout its district, and upon owners of houses to furnish their houses with proper arrangements to receive such supply."

"THE FRUIT OF THE VINE."

Mr. Lytton, the British Secretary of Legation at Lisbon, has very recently contributed an interesting chapter to the history of those wines which have hitherto held sway in England, and which are believed in by John Bull as the veritable product of Spain and Portugal. Mr. Lytton says that in Portugal the vine is cultivated in four ways:—1st. The old Roman system, still common in Tuscany, of trailing it round oaks or poplars. 2nd. By planting it in terraces, where it is not allowed to overgrow a height of three feet and a half; this mode is adopted in the Alto Douro, the vine being bound to stakes as in Germany. 3rd. By planting it in bushes about eight feet apart, the intervening soil being ploughed for corn—the fruit thus grown is said to have an earthy disagreeable flavour, from the lower bunches trailing on the ground. 4th. In trellises ("*de remada*"), sometimes over the whole of a village street. The Alto Douro produces the best wine. The soil is there turned thrice a year: first in autumn, when it is removed round the root in order to let the rain stand; next in April, when the root is recovered to protect it from the sun; and lastly when the grape begins to colour, weeds being then spread over the surface to shield the roots from the heat. The vintage begins about the end of September, and is generally over by October 20. When the grapes are gathered (by women and children), they are carried in baskets to the "lagar," or wine-press, into which they are thrown, with no other separation than of the white from the black. The first liquor drawn from the crushing of the grapes by their own weight makes a rare white wine of very superior quality, hardly known out of the country. The press is then trodden by gangs of men for thirty-six hours, after which the "must" is left to ferment, which takes from thirty-six hours to four days, according as the "must" is green or saccharine. Drawing off the wine is a delicate operation, as the husks and stalks, if left too long on the surface, mix with the liquor and spoil it.

"All port wine hitherto exported for the English market is largely mixed with brandy, *and is composed almost quite as much of elderberries as of grapes.* The way in which what in England is called port wine has hitherto been manufactured for the London market is this:—The Paiz de Vinhateiro abounds in elder-trees: the berries of these trees are dried in the sun, or in kilns. The wine is then thrown on them, and the berries are trodden till it is thoroughly saturated with the colouring matter of the berries. Brandy is then added in the proportion of from 3 to 16 gallons to every pipe of 115 gallons. This is the composition of all the port wine hitherto drunk in England. No pure wine—no wine not thus specially adulterated for the English taste—was allowed by the Government Committee of Tasters to pass the bar of the Douro for export to England before the year 1865. This system, by the law of that year, was abolished. The trade is now perfectly free, and there is therefore no reason why pure wines should not now be exported to England."

All this must be highly satisfactory to the English possessors of "choice old port" of rare and celebrated vintages. The advertisement of an eminent wine merchant, who affirms, in recommendation of his "superb 1860 vintage port wine,' that it has been exported "without the usual addition of 18 per cent. of aguardiente or raw spirit, and entirely free from the liqueur called *geropiga*, of a splendid ruby colour, soft and ripe for immediate drinking," must also, as Dr. Druitt has observed, be very consolatory to people who had previously bought wine in the faith that port is not port without spirit and *geropiga*.

But, according to Mr. Lytton, it would be like casting pearls before swine to send us unadulterated port. We have become so habituated to the compounded article that in its unsophisticated condition it does not come up to the mark of ordinary port drinkers amongst us. For it appears that some wine was made by Mr. Forrester from the remarkably fine vintage of 1834, in the Alto Douro (the best wine district), on the French plan, without the admixture of one drop of brandy. It was bottled directly fermentation was complete. On its arrival in England it was found to contain 27 degrees of alcohol, which had of course been generated naturally. This wine, which had cost the maker not less than £25 to £30 per pipe, was considered in London excessively harsh and inferior to the low wines of France, and was valued at about £8 or £9; so that commercially the enterprise was most disastrous. It would seem, then, as if elderberries, raw spirit, and geropiga were essential constituents of the only *vin d'Oporto* which commends itself to the unrefined tastes of Englishmen. But as elderberries are plentiful enough in our country lanes and hedges, it can hardly be profitable to import them from the Continent; the best way would be to let us have the pure juice of the grape by itself, and the ingredients supposed to be necessary for giving it the right flavour and quality by themselves, and so let those of us who might prefer the genuine article have an opportunity of securing it.

The production of port wine increased from 4,942,366 litres in 1863, to 7,146,446 litres in 1865.

We observe that the *Pall-mall Gazette* of the 15th ult. contains an "occasional note" on the asserted use of elderberries in the manufacture of port wine, wherein it is stated that the wine merchants indignantly deny the truth of Mr. Lytton's assertions as applicable to present circumstances. These gentlemen say that *if* such a state of things prevailed twenty years ago, when Mr. Forrester called attention to it, nothing of the sort is done now. In corroboration of this denial, our contemporary is requested to print the following extract from a report by Mr. Consul Crawford, dated from Lisbon, February 21, 1867, and subsequent, therefore, to Mr. Lytton's report:—

"The statement of Mr. Forrester that port wine was adulterated with treacle, elderberries, and geropiga, was contradicted by every gentleman in the trade at the time he brought the charge—that is, in 1844. It may, or may not, have been well founded at the time, but certainly it is not the case now. Mr. Forrester says that elderberries give a taste and smell to the wine quite unmistakable, and a dark purple colour which is very different from the rosy colour of true port wine. This I understand to be perfectly true, and, as the demand for very high colour, as I have said, no longer exists, the statement made to me that only about 1 per cent. of the port wine now made is stained with elderberry, and that wine of a very inferior quality, may be accepted as truthful."

Which of these official reports, so contradictory one with another, are we to believe? It is extremely difficult to understand how the "elderberry" theory got abroad if there were not some truth in it. The more serious charge of "fortification" with raw spirit cannot be denied, for it is a self-evident fact.

SANITARY INSPECTION.

The inspector of nuisances ought to be the right hand of the officer of health, and ought, consequently, to be under his exclusive control free from any influences which are likely to impair his usefulness. No health officer, however energetic and vigilant, can make himself personally acquainted with all the nuisances of a large district, even in ordinary times; but in exceptional periods of prevalent disease it is of the first importance that he should have the power to appoint, in number and qualification equal to his requirements, persons competent to relieve him of as much of the drudgery of his post as possible, leaving him free to study the effect of what is going on, and to devise the best means for insuring sanitary improvement.

In a recent investigation as to the health organisation of the kingdom, Dr. A. P. Stewart ascertained by direct inquiry from fifty-nine towns particulars of their provisions for sanitary inspection; and the results of this inquiry, for which we are indebted to Dr. Stewart's private enterprise, are calculated to open people's eyes as to the amount of confidence to be placed in the effect of permissive legislation on local authorities.

The metropolis, with its 3,000,000 inhabitants, has nominally 100 inspectors of nuisances; but as certain of these are engaged chiefly in other than sanitary work, it is reckoned that the full active force does not exceed 93, or 1 for every 31,300 inhabitants. But the disparity of the districts is immense; for while Putney and Lee, with populations of 7500 and 10,000 respectively, have each one inspector, Marylebone and Pancras, with their large areas and with populations respectively of 163,000 and 211,000, have each only two. Shoreditch (which Dr. Stewart states has declined to take up the Sanitary Act, 1866), with 136,000 inhabitants, has part of the services of one inspector. In Camberwell (population 81,818) with 4 inspectors, in Chelsea (population 65,957) with 7, in the City of London (population 102,887) with 8, in Whitechapel (population 76,386) with 4, in St. James's, Westminster (population 34,155), with 3, we have examples of a more satisfactory provision.

Dr. Stewart very wisely remarks that "one of the most ingenious devices for neutralising the influence of the officer of health is to make the sanitary inspector wholly, or in great part, independent of his control," and he invites special attention to the fact that in not fewer than fifteen metropolitan districts, or sub-districts, this most faulty arrangement prevails. Of course, in such case it depends entirely on the inspector whether he will co-operate heartily with the health officer, or be an impediment in his way.

Twenty-three towns in the kingdom having temporary or permanent officers of health, and an aggregate population of 2,220,407, have 103 ordinary inspectors or sub-inspectors, which gives an average of 1 to every 21,557 inhabitants; but deducting Leeds and Liverpool (joint population, 710,085), with a staff of 63 inspectors, there remain only 40 for the other 21 towns, giving an average of 1 inspector to every 37,758 persons. Leeds has 1 inspector to every 10,818 persons, and Liverpool 1 to every 11,498, exclusive of meat and lodging-house inspectors. Mr. Davies, the Health Officer of Bristol (population, 167,228), has 5 inspectors, "all very able men, knowing everybody and everything in the city within their duties, and so sharp that nothing escapes them." No wonder Bristol is able to maintain so favourable a position on the urban mortality roll.

In 36 towns, with a total population of 2,500,000, there are 59 inspectors, or 1 to every 42,200 inhabitants. In 15 of these towns the inspection is reported efficient; in 4 tolerably so; in 8 doubtful or more than doubtful; and in 4 decidedly bad. Dr. Stewart strongly objects to the employment, as sanitary inspectors, of the police—a common provincial practice—who are, as a general rule, underpaid, and whose duties are sufficiently burdensome without the addition of a task which requires for its satisfactory performance undivided energies. Furthermore, he questions whether the identification of sanitary improvement with the force which is chiefly occupied in the prevention and detection of crime is not calculated to excite prejudice against health measures for the execution of which they might be employed.

We have no difficulty whatever in agreeing with Dr. Stewart's conclusion that the inspectors of nuisances should be always under the control of the officers of health, and should not be burdened with other and inconsistent duties. And, as a check upon local authorities, it would undoubtedly be a good thing if a yearly return were made to Parliament, showing the condition of the sanitary organisation of the country as regards the work done and its remuneration.

THE WEEK.

TOPICS OF THE DAY.

The representation in Parliament of the University of London seems destined to become a mere prize to be contended for by the rival political interests into which the graduates are divided. A wiser and more appropriate course for such a constituency would have been, we believe, to have sent to the House of Commons a representative pre-eminent in scientific attainments, moderate in political opinion, and unshackled by the ties of party, who, by giving the Legislature unbiassed and valuable counsel on matters connected with physical science, would have supplied an acknowledged want, and duly maintained the University and the Profession of Medicine, of which the University is chiefly composed, in public estimation. There seems, however, but slight hope of such a candidate presenting himself, and still less of his being successful. In addition to Mr. Quain, the barrister, whom we mentioned last week, another Liberal, Mr. Bagehot, is already in the field. Mr. Robert Lowe and Mr. Lubbock are also mentioned as probable candidates. If the University is content to return a politician, pure and simple, we believe that it could not be more worthily represented than by Mr. Lowe. Of Mr. Lowe's ability, integrity, and commanding influence in the House of

Commons, it would be superfluous to speak. There is probably no member of the present House who would more fitly represent an intellectual constituency. But at the same time it must be remembered that Mr. Lowe will be known in the House of Commons not as the representative of the University of London, but as the leader of the Adullamites and the most accomplished and daring of free-lances. The University will add nothing to the reputation of Mr. Lowe, and it will be thrown into the shade by the brilliancy of its representative. If, however, the graduates are determined to make a political choice, we can wish them no better fate. It is also only fair to add that Mr. Lowe, throughout his political career, has always shown a fair appreciation of the public value of the services of the Profession of Medicine, and he rendered powerful aid in carrying the Public Health Act of 1860. His committee includes many of the leading Medical graduates of the University.

The new list of Fellows of the Royal College of Physicians seems to have been formed on principles as incomprehensible as ever. It includes four provincial Physicians, three juniors of Metropolitan Hospital staffs, and the Director-General of the Army Medical Department. We have no objection to offer to any of these gentlemen. They are all of them, no doubt, worthy of the Fellowship; but, with the exception of Dr. Logan and perhaps one or two others on the list, we assert that their claims are all inferior to those of gentlemen who have been again and again passed over. We are certain that the course pursued by the Council on this and recent occasions cannot tend to promote a sentiment of loyalty to the College amongst its Members.

Another version of the account given by Moosa of the murder of Dr. Livingstone has reached England by way of India. It was published in the *Times* of India, and is said to have been received from Zanzibar by a vessel that arrived at Bombay in May last. The account now given differs but little from the original story, and it has failed to convince Sir Roderick Murchison, who, relying on Moosa's well-earned reputation for mendacity, clings to the hope that Dr. Livingstone may be yet alive.

We regret to observe that a charge has been preferred against a Surgeon of Deptford of having criminally assaulted a patient, an unmarried woman, whilst under the influence of chloroform. As we have frequently remarked, such charges are far more readily made than refuted, and it is perfectly easy for a designing person to irremediably blast a Professional man's character. We offer no opinion on the merits of this particular case. Medical evidence was produced that the patient had been subjected to violence, but, on the other hand, if the testimony of the Surgeon's servants is to be relied on, it is simply impossible that he could have committed the assault. Mr. Maude, the magistrate, sent the case for trial, but at the same time accepted bail for the defendant's appearance.

We notice that the St. Pancras guardians have determined on diminishing the amount of opium used in the workhouse. At a late weekly meeting, the dispenser having applied for three pounds of crude opium, the quantity demanded was cut down to one pound. We presume that opium is not given without Medical sanction, but, if this be the case, it is the most short-sighted parsimony to stint the supply of probably the most valuable drug, in pauper practice, in the whole range of the Materia Medica. To many an old worn-out constitution opium is the *elixir vitæ* which enables it to support a little longer the burden of life, and it is sheer inhumanity to deny it. Of course, if the drug has been given *ad libitum* without Medical warrant, our remarks do not apply.

Amongst the appointments of the week is that of Mr. Berkeley Hill to the Assistant-Surgeoncy of the Lock Hospital. At the coming election to the Gresham Professorship, it seems not unlikely that Dr. E. Symes Thompson will be, if not the fortunate candidate, at least one of the most favoured by the electors. The Profession will gladly see that the Board of Trade have testified in a fitting manner the public appreciation of the heroic services of Mr. Charles Edward Smith, Surgeon of the whaler *Diana*, rendered to the scurvy-stricken crew during the long winter when she was ice-bound in the Arctic seas.

Our readers will appreciate the determined but unavailing opposition offered to the Vaccination Bill by Messrs. Vanderbyl and Brady. Unfortunately, nothing more to obviate its obnoxious clauses can now be done in the House of Commons. It remains to be seen whether a more successful attempt cannot be made in the Upper House.

THE ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

The annual election of Fellows into the Council of the College took place on Thursday, and for several reasons excited an unusual amount of interest. In the first place, it was the only occasion on which the three retiring members of the Council were also members of the Court of Examiners, and their desire to retain these lucrative chairs on that Court, which are steps to that of the President, caused their friends to be rather active in canvassing the Fellows. There is no concealing the fact that direct and indirect canvassing for these seats has now become general. The number of candidates (seven) was another cause of excitement. The friends of all the candidates mustered in large numbers. Previous to the election the Fellows generally inspected the large additions about to be made to the Museum, which were displayed in the Theatre of the College; others dispersed over the Museum, where small knots of the Fellows might be seen, discussing in rather loud terms the respective merits and chances of success of the different candidates.

Precisely at 2 o'clock the President, Mr. Partridge, accompanied by the Vice-Presidents, Messrs. Hilton and Quain, and several members of the Council, entered the library, when the mode of conducting the election was explained by the President. It was very simple. Each elector provided himself with two of the printed forms distributed about the room. On one he inscribed his name and address. The other contained the names of the candidates in the following order:—Messrs. Skey, Wormald, Kiernan, Hewett, Smith, Birkett, and Holden. From this list he was required to strike out the names of those candidates for whom he did not vote, taking care not to leave more than *three* names remaining; and, although this was clearly explained by the President and in the voting paper, yet several committed the mistake of leaving more, and in one case all the names in the list. These forms, having been filled up, were placed in a large box, and it was not until 5 o'clock that the balloting was declared closed; when, having waited the ten minutes prescribed by the by-laws, and no other Fellow voting, the box was opened. Now the President, having previously directed that some prepared forms should be supplied to any gentleman desirous of checking the return, commenced handing the voting papers to the Secretary, by whom the names were read aloud and duly noted by the clerk, a work in which one of the Vice-Presidents was also engaged. This process having been completed and checked, the President announced that the choice of the Fellows had fallen on Messrs. Hewett, Smith, and Birkett. The numbers polled by the respective candidates were as follows:—Mr. Hewett, 189 votes, including 9 plumpers; Mr. Smith, 143 votes, including 16 plumpers; Mr. Birkett, 143 votes, including 6 plumpers; Mr. Holden, 136 votes, including 3 plumpers; Mr. Skey, 87 votes, including 3 plumpers; Mr. Wormald, 55 votes, including 7 plumpers; Mr. Kiernan, 30 votes.

The result appeared to be as surprising to some as it was evidently pleasing to others.

If there were any angry feelings excited by the election, they were all subdued through the influence of an excellent banquet which took place the same evening at the Albion

Tavern under the presidency of Mr. Thomas Green, of Bristol, who was supported by an unusually large number of stewards, among whom appeared Professors William Darling, of New York, Bowman and Partridge, of King's College, Busk, Hancock, Hilton, Paget, Savory, and Solly, of the College of Surgeons, and several other metropolitan Fellows. From the provinces were Messrs. Aldridge, of Dorchester; Bainbrigge, of Winchester; Bartram, of Bath; Blake, of Birmingham; Catlin, Field, and Taaffe, of Brighton; Carden, of Worcester; Colgate, of Eastbourne; Crabb, of Poole; De la Garde, of Exeter; Hallsworth, of Atherstone; Joy, of Maidstone; Morgan, of Bristol; Shipman, of Grantham; Turner, of Manchester; and, of course, Dr. Wiblin, H.M. Quarantine Officer of Southampton. A fuller account of the dinner will appear next week. Before separating, the guests were very demonstrative in their expressions of goodwill towards Mr. Hulme, the Honorary Secretary of the Fellows' festival, for the admirable tact with which he manages these most agreeable re-unions. To say that the *cuisine*, wines, and attendance were of the most *recherché* description is only what is now expected under the excellent management of Mr. Jennings. The lovers of music were much pleased with the arrangements provided for them by Mr. George Perrin, of the Temple choir, and his talented assistants.

CONSTANT WATER SUPPLY.

In his analysis of the metropolitan waters for the month of June, as published in the Registrar-General's last Weekly Return, Dr. Frankland adduces the following instance of the danger attending the intermittent supply system:—

"The analytical results show that the water of the West Middlesex Company, drawn from the stand-pipe at the cab rank in Portland-road, on the 1st inst., was contaminated with sewage (*present* sewage contamination), for, if the amount of nitrogen existing as nitrates, nitrites, and ammonia (·318 part) be deducted from the total combined nitrogen, there remains ·103 part, which must be *organic* nitrogen, equivalent to 1030 parts of average London sewage in 100,000 parts of the water, or rather more than 1 per cent. The water was turbid when drawn, and after standing for a few days emitted a very offensive odour and became filled with white flocculent matter, resembling that which gradually deposits from filtered sewage. A few days later this odour disappeared. In answer to my inquiries, the engineer of the Company informs me that breakage had occurred in one of the Company's mains in an adjoining street, and near a gully-hole. This fracture, which was repaired on June 3, soon after its discovery, happened to a main from which the water pressure was removed at night, and it is believed that, during this absence of pressure, sewage commingled with the contents of the main. It is gratifying to find this satisfactory reason for believing that this contaminated water was delivered to a small district only, and for a short time, but this accident supplies another item to the already long list of dangers attending an intermittent supply of water. On the *constant* system no sewage contamination arising from such a cause could occur. On taking a sample from the same source on the 7th inst., I found the water restored to the usual condition of normal Thames water."

It is not necessarily as a fact in connexion with this statement that we notice the increase of deaths in the sub-district of All Saints', Marylebone, from 13, in the week ending May 25, to 21 in the week ending June 1, and their decline to 15 and 11 in the two succeeding weeks; this may be only another of those rather strange coincidences which are inexplicable.

DR. LETHEBY'S EVIDENCE BEFORE THE RIVERS COMMISSION.

It is generally understood that Dr. Letheby's evidence on the water question runs in direct opposition, in some respects, to the opinions of some of the other high sanitary teachers of the present day. Dr. Letheby describes the water supplied by the water companies in 1867 as being clear, well aerated, with quite oxygen enough to destroy any organic impurities; the Thames water as a good chalk water; and he states that the quantity of organic or volatile impurities is much less than in 1851 and 1856; that the water is now quite unobjectionable, and yet likely to be improved by the means in progress for diverting sewage; that ordinary sewage is completely destroyed and oxidised by the flow of a river for a dozen miles; yet that, if the germs of cholera be living, they might possibly survive—in fact, that the evidence of the propagation of cholera by contaminated water is incontrovertible. Yet Dr. Letheby disbelieves the connexion of the cholera of 1866 in London with impure water, for some places supplied from Old Ford escaped, some supplied by the New River suffered. Moreover, the underground pipes are so mixed and interlaced that not even the companies' engineers can say by what main any given houses are supplied. In fact, Dr. Letheby believes that *level* has more to do with the propagation of cholera than water has. Dr. Letheby further believes that a moderately hard water is safer and better for ordinary use than a soft water, as that of Glasgow. He appeals to the necessity of lime salts, and believes that mortality is lower in districts supplied with hard water than with soft. He disclaims all connexion with the water companies.

HIRUDO MEDICINALIS.

M. Millot gives in the *Statistical Journal* of Paris the following account of the number of leeches imported and exported in France, which illustrates very curiously the variations of commerce under the influence of caprice, fashion, or of an individual enjoying a great scientific reputation:—

	Imported.	Exported.
1820 . .	—	1,158,000
1821 . .	3,000	1,574,000
1822 . .	15,000	1,565,000
1823 . .	321,000	1,189,000
1824 . .	2,063,000	1,201,000
1825 . .	9,041,000	688,000
1826 . .	21,707,000	449,000
1827 . .	33,634,000	196,000
1828 . .	27,360,000	293,000
1829 . .	44,581,000	504,000
1830 . .	35,534,000	739,000
1831 . .	36,443,000	1,242,000
1832 . .	57,491,000	1,895,000
1862 . .	1,419,000	3,933,000
1865 . .	4,900,000	5,065,000

In the period from 1825 to 1832, the consumption of these annelids increased enormously, and this was the time when the depletory system of the celebrated Broussais was in the plenitude of its operation. Subsequently the return to rationality in Medicine was marked by a correspondingly rapid decrease in the leech commerce, although the great use of them for several years developed their indigenous production, and has thus augmented the numbers available for exportation. During the Broussais period, the price of leeches rose from 5 to 50 centimes each; hence it became necessary to have recourse to other means, and the invention of the cupping glass economised for the Hospitals as many as forty leeches for every application of the apparatus.

LUNATIC WARDS IN WORKHOUSES.

The English Lunacy Commissioners, in their twenty-first annual report, advert to the creditable condition of the lunatic inmates in some of the larger workhouses; and they state that, where such proper provision is made, a larger proportion of imbeciles and chronic cases may, without impropriety, be retained in them, thus reducing proportionably the pressure for increased accommodation in Asylums. These exceptional cases do not, however, militate against the fact that the Commissioners are powerless to remedy many defects of treatment or accommodation observed in respect of patients so situated; and, therefore, in the existing state of the law, they regard with much uneasiness the tendency noticeable in many

counties to relieve the pressure on the Asylums, and to avoid building, by removing their harmless chronic cases to workhouses, thus placing patients under the irresponsible care of guardians, and subject to treatment in every respect inferior to what they had been accustomed to in Asylums. The Commissioners look upon this as a decidedly retrograde step, so far as the legislative care and protection of the insane are concerned, and state that its general adoption would not only be a great wrong and injustice to the patients themselves, but would also contravene the Act of 1853 requiring additional Asylums to be built when the existing accommodation became inadequate. Provision has been made to meet temporary pressure in Asylums, and this appears to have been construed by county and borough authorities in a way more favourable to their own pockets than to the interests of the insane poor. The Commissioners express strong doubts whether the system of relieving Asylums of their harmless chronic patients, by quartering them with their friends or with strangers as single patients (there being already 6600 so placed), could advantageously be extended, or that it works so satisfactorily in this country as to render its more general adoption at all desirable. The want of better provision for idiots in workhouses has given rise to communication with the Poor-law Board ; and the necessity for separating them from the ordinary insane patients, and removing them to institutions adapted for their systematic education and training, is urged as most important. Referring to the provisions of the Metropolitan Poor Act (1867) for the establishment of District Asylums for the reception and care of the insane poor, the Commissioners ask for supplementary legislation, on the ground that, although the intended Asylums are to be considered as workhouses for the purposes of the Lunacy Acts, they will, in fact, be Asylums containing from 500 to 1000 patients, for whose detention there will be no legal authority. They say that there ought, therefore, to be a definition of the persons who might be confined in the new buildings, and the same protection assured against the detention of sane persons which is provided in the case of County Asylums.

PREVENTION OF VENEREAL DISEASES.

At a meeting of the Harveian Society on June 1, Dr. J. E. Pollock, President, the report of the Committee for the Prevention of Venereal Diseases (which has occupied a large number of those members of the Profession interested in the question several months to prepare, and for which statistics have been obtained from the majority of the Hospitals and Dispensaries in the kingdom) was read and adopted by the Harveian Society. Its results are, in brief, that the Contagious Diseases Act of 1866 should, with some slight alterations, be extended to the general civil population of this country, thus providing an ample supply of beds, at Government expense, for diseased prostitutes, who at present remain untreated for weeks, even when suffering from the most contagious diseases. It was resolved that the report should be printed and circulated among such Members of Parliament and such members of the Medical Profession as are interested in the question, and that the report should be read by the Honorary Secretary of the Society in Paris at the Congress of Medical men of all nations appointed to assemble there in August next. It was also agreed that, as soon as the report was printed, a deputation, composed of members of the Harveian Society and other members of the Profession, accompanied by such Members of Parliament as may feel interested, should wait upon the Home Secretary, to lay the question before the Government, and to pray that some legislative enactment may speedily be passed to meet the exigencies of the case. Lastly, an association was proposed and adopted, to be called the "Association for the Prevention of Contagious Venereal Diseases," to be composed of Medical and lay members interested in this question, and the object of which should be to keep the matter alive until some fitting legislation should be obtained.

PARLIAMENTARY.—THE VACCINATION BILL—THE CONTAGIOUS DISEASES (ANIMALS) BILL—WHITE VEAL.

In the House of Commons on Thursday, June 27, on the motion that the Vaccination Bill be read a third time,

Mr. Vanderbyl said: It is with great reluctance that I rise to move "that this Bill be read this day six months." The object of the Bill is "to consolidate and amend the laws relating to vaccination," but it seems to me that too complicated a course has been proposed for the purpose of making this a useful measure. I wish it to be distinctly understood that I am an advocate for continuing the system of compulsory vaccination ; but, to secure that object, I think it is unnecessary and absurd to overburden this Bill with clauses which can only act as so much dead weight, and thus destroy the object we wish to secure. I may refer briefly to a few clauses to demonstrate how necessary it is that this Bill be reconsidered. Allow me, in the first place, to direct attention to Clause 6, defining the remuneration of public vaccinators, and, without wishing to compare the education of the Medical man with that of the attorney or solicitor, let me ask honourable members what they think of paying educated gentlemen eighteenpence for performing a Surgical operation requiring skill and judgment, writing in a register the name, age, sex, etc., of the person, inspecting the patient on the seventh day, writing two certificates, and transmitting one by post or otherwise to the Registrar. The Bill does not say who is to pay the postage, but one penny for postage will absorb one-eighteenth, or more than five per cent., of the payment offered. In my opinion this proposal is perfectly scandalous, and I think the framers of this Bill, and of this clause, felt that they were about to inflict a gross injustice ; hence they preceded it by the offer of gratuities—in short, Clause 5 was inserted as a kind of sop to make things look pleasant. But on going to Clause 8, in which it is proposed to pay for revaccinations two-thirds of the fee for the primary operation, I am at a loss to conceive upon what principle it is proposed, and, if allowed to remain, it comes to this, that we undertake to give a premium for carelessness, for we agree to pay two-thirds of the eighteenpence—that is, one shilling—for revaccinations, which is exactly the amount of the gratuity offered for successful operations. The vaccinator will, therefore, get one shilling in either case; but when he has to revaccinate anybody beyond the distance of one mile, two-thirds of the primary fee will be one shilling and fourpence, so that he will get more for revaccinations than the gratuity offered, and when he revaccinates beyond the distance of two miles he would be entitled to two shillings—that is, twice as much as the gratuity offered. Now, I disapprove of any antidotes for carelessness in the shape of gratuities, and I would therefore omit giving the gratuity and paying for revaccinations. I would propose to pay the Medical man fairly for the operation, and expect it to be successfully performed; and if from any cause whatever revaccination be required, the Medical man should be obliged to perform the operation again, without further payment. This seems to me the rational mode of treating this question. Now, as regards the registration of vaccination, I can scarcely conceive a more useless and tyrannical scheme for compiling a national register of vaccination—useless, because if any evidence were required as to any particular person having been successfully vaccinated, the information can be more certainly and more readily obtained by inspection of the person's arm ; tyrannical, because it subjects private Practitioners and parents to the risk of being summarily convicted in a penalty of twenty shillings for not sending a certificate to the Registrar. As regards the public vaccinator, he has made a contract, and, it may be argued, he must abide by it ; but why should the private Practitioner, when he has finished the operation, and is about to depart, be stopped to write a certificate? He can scarcely ask for a fee from his patient for this extra service ; and why should his time be occupied by writing a certificate for the Government without payment? I venture to say that a much simpler scheme could be devised for obtaining all the statistical information we may require on this subject. But I am unwilling to occupy the time of the House any longer, and therefore move "that this Bill be read on this day six months."

Mr. Bruce said that the two points referred to by the hon. member had been fully discussed in the Select Committee on the Bill and in the Committee of the whole House.

Dr. Brady supported the amendment, because he thought

that the Bill would be ineffective if passed into law in its present shape.

Mr. Barrow opposed the Bill, and said that Medical men were not at all agreed with respect to the efficacy of vaccination.

Sir J. Jervoise also opposed the Bill.

Mr. Kendall said the Bill would bear hardly on the lower orders.

Mr. T. Chambers was of the same opinion, and said that the moment the measure passed an agitation would commence for its repeal.

Lord R. Montagu asked whether they were to consult the prejudices of the people or to save their lives.

Strangers were ordered to withdraw, but no division took place.

The Bill was read a third time and passed.

The Contagious Diseases (Animals) Bill was read a second time.

On Monday, July 1,

Mr. Bagwell asked the Secretary of State for the Home Department whether his attention had been drawn to statements in the public press relative to cruelties alleged to be practised in the preparation of veal; and whether, should the existing laws prove insufficient, he will take such steps as he may consider necessary to prevent the continuance of such atrocities.

Mr. Hardy said that upon seeing the statements in question he directed inquiries to be made, and he was afraid that in many instances something of the kind had taken place. The Society for the Prevention of Cruelty to Animals had resolved to take up the matter, the present law forbidding any abuse or torture of animals, but it would be a question for a magistrate whether these practices were punishable under that enactment.

The Railway Guards and Passengers Communication Bill was read a third time, and passed.

THE IRISH EPIDEMIC, OR "MALIGNANT PURPURIC FEVER."

On Monday, the 1st inst., the large attendance at the Epidemiological Society was a sufficient proof of the interest—we might add anxiety—felt about this subject. There were three papers before the Society, one from the Army Medical Department, read by Dr. Marston, and the others from two Dublin Physicians, Dr. Mapother and Dr. Lyons. We are very glad indeed to see the Army Medical Department entering into these subjects, and we have often wondered why our public departments always appear to be so reticent in supplying the valuable information which they must possess on such matters as these. The conduct of the Profession in Dublin has been worthy of all praise. They have freely laid open to the scientific world all the facts in their possession, and it is to them, and the discussions in their Medical Colleges, that we owe much of what we know about the disease. Dr. Stokes, in particular, contributed a most admirable summary of the debate held at the Dublin College of Physicians, and expressed, in a judicial and philosophical manner, his own views regarding it. The debate at our London Society caused by the reading of these papers was most animated and interesting; and the concluding remarks by Dr. Jenner, the President, were, to our minds, admirable, not only for their soundness in a pathological point of view, but for the incisive and perspicuous criticism embodied in them. It is not our object, however, to detail all that took place at the Society, but rather, availing ourselves of what we gathered on that occasion, we propose to give our readers such a summary as will put them in possession of the leading views there advocated.

Imprimis, then, what has been the extent of this epidemic, for although it is constantly written and spoken about as an epidemic, it is reassuring to know that it has scarcely attained the proportions to warrant the use of that term? So far, the *materies morbi* has not been disseminated very widely, but its manifestations have been circumscribed within narrow limits. With the exception of two cases of which we have heard as having occurred in this metropolis, the disease has been confined to Ireland. From March 18, 1866, to the present date, according to Dr. Mapother, there had been 76 cases, 63 of which had been recorded in the Dublin district, and the remainder (13) over the rest of Ireland. In Dublin the greatest mortality had been attained in April, when 15 cases died. We believe we are correct in stating that there have been altogether 25 cases among the military, of which number 6 were recoveries.

The variety in point of duration and fatality may be gained from what follows. Dr. Mapother says:—"The most rapidly fatal case had destroyed life in four hours and three-quarters from perfect health; but in 41 cases the average duration was forty-two hours. The mortality had exceeded 50 per cent. Of 41 cases 6, 6, 6, and 8 had occurred in the quinquennial periods from 5 to 20. Twenty-one of the deaths were in females, 20 in males."

Now, what is the nature of this disease? What are its pathological and etiological affinities with other diseases? How are we to explain its origin and spread? Does it depend, as Dr. Marston asked, upon an entity—a poison—and is that poison a portable communicable one or not?

There is no more mysterious subject than that which passing events are impressing upon us. We recognise at one time the rapid rate of accumulation and dissemination of the *materies morbi* of some contagious disease, when that disease prevails in an epidemic form; at another time we perceive the same affection occurring in a "sporadic" form where all the surrounding circumstances, it may be, seem to be favourable to its spread, and yet it does not! Why? What are these mysterious exceptional conditions which make a disease manifest contagious properties at one time and place, such as it does not exhibit at others?

The great prevalence of epidemic diseases of late years—epizootic and human—was touched upon, as it could scarcely fail to be, by many of the speakers. When we can count on our fingers such a list as small-pox, cholera, cattle plague, the Mauritius epidemic, the disease under consideration, and those curious and probably allied morbid phenomena among the pigs known as the "purples," it must be confessed that it is calculated to arrest the attention.

There are some interesting facts about the pigs. These animals are said to be suddenly seized with disease and to die in twenty-four hours, after exhibiting black or purple spots upon various parts of the body and ears, and showing symptoms of diseased innervation. They were stated at the meeting to have manifested, under the disorder, considerable "cerebral excitement." A pig in this state must make a very curious exhibition of himself. Dr. Yandell, of Louisville, Kentucky, ascribed much of the famine which had followed in the Southern States so fast on the heels of the late war to the great prevalence and mortality of this disease among the hogs. Neither physical nor Medical science is adequate to gauge the question of the interdependence and mutual relation of epidemic diseases. They intermingle with each other, are coexistent or successive, and they are not superimposed, but congeners, forming interlaced links of the same chain. The rapid succession and the prevalence of epidemic disease must, we think, convince every one of the existence and operation of some diffused influence, of which we take cognisance when we use such expressions as "an epidemic constitution of the season," "pandemic wave," and so on; and, for the nonce, we must be content to hide our ignorance under vague expressions of this kind. Hereafter, some pathologist and Medical philosopher, with the powers of observation and the reflective faculties of a Newton, may appear, who shall identify and arrange the varied phenomena presented by *animal* diseases—using the term in its widest sense—show their relation one to another, and reduce the hidden influences at work in their production to something like law and order.

Putting aside these considerations as visionary, however, let us ask ourselves the question whether this disease is analogous to, and does it fall within the category of, a specific blood disease; and if so, does it share with them the property of reproducing the *materies morbi*—the specific cause—in the bodies of those who are under its influence? And does the disorder pursue a regular course in the development and evolution of the morbid phenomena it induces, in a way that is strictly parallel to what we know to be the case with diseases of the same type; and, last of all, how far can its spread or virulence be fairly attributed to insanitary and other conditions within our control?

We think we have enclosed within the limits of these questions the pith of the matter, and we believe, moreover, that the debate at the Epidemiological goes far to answer those queries affirmatively. Some very erroneous views, in our opinion, have been advanced about this disease—views which obstruct our clear perception and reading of the facts. In

the first place, as Dr. Jenner sagaciously remarked, we have yet to find an appropriate name for it. The more appalling and foreboding the name, the less applicable and truthful it appears to be. There is some comfort in that. It would be terrible to contemplate that we were on the eve of a period when there was to be a repetition of those occurrences which marked the epidemic of the fourteenth century. We think also that this disease is distinct from typhus, and such appeared to be the general opinion expressed at the meeting. It occurs among the well-housed, well-fed, and well-clad, and by no means follows the haunts of typhus. It attacks the young and kills them with a rapidity quite unknown in typhus, for the fatality of that disease is in direct ratio with the age of the patient, and the risk of a fatal result at all, particularly an early fatal result, as Dr. Jenner remarked, was infinitesimally small from typhus in the young. Again, if the disease be contagious—and we are ourselves inclined to believe this to be the property of all these blood diseases—it must nevertheless be confessed that contagion plays a very subordinate part indeed, compared with what we see in typhus. The suddenness of the attack, the early appearance and nature of the spots—which are almost, but not quite, invariably petechial from the first—the nature and evolution of the morbid manifestations, and the great frequency with which the products of inflammation about the cerebro-spinal system are met with in fatal cases, compared with the extreme rarity of the same occurrences in typhus—all these are, to our minds at least, so antagonistic to, as to be irreconcilable with, the idea that the two are identical or closely allied diseases. There was much reason for believing that the cerebro-spinal meningitis prevalent in North Germany was intimately associated and engrafted on typhus. It seems to have differed somewhat, however, according to Dr. Sanderson, from the disease under discussion. Violent delirium was a very prominent symptom, while delirium was not by any means a frequent or urgent symptom in the Irish cases. The purpuric spots and livid blotches, too, so marked in the Irish epidemic, were not present in the cases attacked in Germany; and symptoms indicative of an irritative disease of the cerebro-spinal system were more common during life, and the unequivocal products of inflammatory action in these parts were far more frequently found after death in the sufferers from the German epidemic.

Another, and to our minds a still more untenable theory, is that which adopts that old pathology expressed in the term "*febris scorbutica.*" There is no proof whatever that a scorbutic diathesis is present, or has anything to do with the disease in question. We had an abundance of scorbutic disease among our troops during the Crimean war, and nothing of the kind followed; and Dr. Vandell said the same thing of the late Confederate army, the soldiers of which suffered to an almost unprecedented extent from scurvy, but he had neither noticed nor heard of any of these cases. Whatever may be said about civilians, there is no mistake that the diet of the British soldier does not induce scurvy; that diet is the same everywhere; but it is only in Ireland that any such affection has manifested itself. Nay, more, it is almost inconceivable that a young nobleman should not have had a sufficient quantity and variety of food, and yet he was very early numbered among the victims of the disease.

It is a very remarkable thing, also, as was mentioned in the Report from the Army Medical Department, that the Medical officers were unable to put their finger upon any sanitary depots existing in the barracks, or in their localities, to which the origin and spread of this disease could be fairly attributed. Take the barracks at Birr! It is clean, well ventilated, well drained, and not overcrowded, and certainly superior to the town in all these respects, yet the disease appeared among the soldiers stationed there, and did not attack the civil inhabitants, and we believe that the Medical officers attributed the outbreak of the disease in question to the introduction of the typhus poison by the return of men composing the "flying column;" but this does not appear to be fairly established. The Richmond Barracks, again, at Dublin, and the camp at the Curragh are said to be in a satisfactory sanitary state.

We have been at the pains to peruse most of the recorded cases, in order to discover, if we could, some one element or circumstance common to them all; but we have failed in doing so.

The proceedings of this little Society are too often overlooked, their philosophical labours being apt to be neglected for the more practical matters discussed in others; but while such a man as Jenner presides over its sittings, and its business is conducted so energetically by Mr. Radcliffe, visitors may be assured that they will not leave its meetings without some profit.

We propose giving a detailed account of the transactions in our next impression.

CENTRAL AFRICA IN ITS MEDICAL ASPECTS.

(Continued from page 505.)

DIETETICS AND MEDICINE.

We recently laid before our readers two graphic sketches of the sunstroke which proved all but fatal to Mrs. Baker, and of the fever from which both that lady and her husband suffered during a great part of their journey in search of the sources of the Nile. We now proceed to extract a few miscellaneous gleanings relating to the dieteties, medicines, etc., of the African tribes with whom our adventurous travellers came in contact. From the general tenor of Mr. (now Sir Samuel) Baker's volumes, we should infer that the countries which he visited were by no means suitable for those easy-going tourists to whom a good dinner at the end of the day's journey is a necessity. "I cannot understand," he observes, "for what reason all the White Nile tribes extract the four front teeth of the lower jaw. Were the meat of the country tender, the loss of teeth might be a trifle; but I have usually found that even a good set of grinders are sometimes puzzled to go through the operation needful to a Latooka beef-steak." Toughness is, however, not the worst characteristic of an African feast. The food is often presented in a more than *gamey* condition; and however putrid meat may be, it does not appear to affect the health of those who indulge in its use. We wish that Dr. Letheby, in the admirable address which he recently delivered on diseased and putrid meat, and which was published in this journal, had entered more fully into the bad effects of eating putrid meat. No one can doubt that he would have condemned with just indignation "the head of a wild boar in a horrible state of decomposition and alive with maggots;" yet the happy owners of this luxury were observed to light a fire and to cook their savoury pork by placing it in the flames. "The skull becoming too hot for the inmates, crowds of maggots rushed *pêle-mêle* from the ears and nostrils, like people escaping from the doors of a theatre on fire. The natives merely tapped the skull with a stick to assist in their exit, and proceeded with their cooking till completed, after which they ate the whole and sucked the bones." While, in this country, we regard early spring chickens as a luxury, most negro tribes prefer their poultry in a still earlier stage—namely, *in ovo*. Our travellers usually received the eggs which they purchased in an advanced stage of incubation; and Du Chaillu relates that the Fans in Western Africa preferred a mixture of egg and early chicken to the pure egg or the pure bird. As a similar taste is said, by Lord Milton and Dr. Cheadle, to prevail on the American continent amongst the Indians whom they encountered in their journey across the Rocky Mountains (the great delight of these *gourmands* being to unspend the unhatched chick by the leg over the open mouth, and to nibble at it as if it were a large head of asparagus), we feel almost led to inquire whether, after all, ours is the correct way of eating eggs.

The natives of Shoa, whenever an antelope was shot, would invariably cut its throat, and drink the hot blood as it gushed from the arteries. These unpleasant habits were not, however, universal, and it is strange to notice the extreme differences in relation to clothing, the construction of their tents, diet, etc., existing between tribes in close geographical approximation with another. Thus, the Unyora people possess "this curious distinction, that they are peculiarly clean feeders, and will not touch either the flesh of animals that have died, neither of those that were sick; nor will they eat the crocodile." In many parts, however, crocodile was regarded as a delicacy, and Mr. Baker's attendants held high festival whenever their master shot one of these reptiles. Crocodile does not, however, seem palatable to the English taste. "Nothing," says Mr. Baker, "can be more disgusting than crocodile flesh. I have eaten almost everything; but though I have tasted crocodile, I could never succeed in swallowing it; the combined flavour of bad fish, rotten flesh, and musk, is the *carte de diner* offered to the epicure." As cannibalism falls under the head of dietetics, we may observe that Mr. Baker had no personal experience on this subject, but one of his servants, a native of Borneo

who had served for some years with a trading party on the west bank of the White Nile, asserted that he had penetrated into the country of the Makkarika, a cannibal tribe. Both he and many of a Turkish party with whom the Bakers were travelling had been frequent witnesses to acts of cannibalism during their residence amongst this tribe. "They described these cannibals as remarkably good people, but possessing a peculiar taste for dogs and human flesh." The excellent persons not only ate the bodies of the slain in battle, but "their custom was to catch a child by its ankles, and to dash its head against the ground; thus killed, they opened the abdomen, extracted the stomach and intestines, and tying the two ankles to the neck, they carried the body by slinging it over the shoulder, and then returned to camp, where they divided it by quarters and boiled it in a large pot." This is bad enough, but the following performance of these "remarkably good people" is decidedly worse, and recalls to our minds the hideous outrages lately charged upon our black brethren in Jamaica. A slave girl attempted to escape; her owner fired his musket at her, and she fell wounded in the side. The girl was remarkably fat, and a large mass of yellow fat exuded from the wound. These "remarkably good people" rushed upon her, and seizing the fat, they tore it from the wound in handfuls while the girl was still alive. She was at length killed with a lance, and was divided "by cutting off her head and splitting the body with lances used as knives, cutting longitudinally from between the legs along the spine to the neck." Certain slave children, who were naturally somewhat alarmed at these proceedings, took refuge in the trees, but they were soon pulled down, several of them were killed, "and in a short time a great feast was prepared for the whole party." From this repulsive subject let us turn to what we are in the habit of considering as a necessity of life—namely, salt. In some of the regions through which our travellers passed, especially in Latooka, this substance could seldom be obtained. The natives scarcely ever use it, "as it is excessively difficult to make it in any quantity from the only two sources that will produce it. The best is made from goat's dung; this is reduced to ashes and saturated [? dissolved]; the water is then strained off and evaporated by boiling. Another quality is made of a peculiar grass, with a thick fleshy stem something like a sugar cane; the ashes of this produce salt, but by no means pure." In Vacovia, however, the point at which he first reached the margin of the Great Lake from which the Nile issues, the soil was so impregnated with salt that the whole population was employed in its manufacture, a strong brine, obtained from a black sandy mud, being boiled and evaporated. The resulting product was a white but very bitter salt, containing much potash (a) We do not hear much of milk or its products in Mr. Baker's pages, but at Kesoona he received, in addition to an ox and a quantity of flour weekly, a cow which gave plenty of milk, from which every second day he made a cheese as large as a six-pound cannon-shot. "We used," he observes, "the milk native fashion, never drinking it until curdled; taken in this form it will agree with the most delicate stomach, but if used fresh in large quantities it induces biliousness. The young girls of thirteen or fourteen that are the wives of the king are not appreciated unless they are extremely fat; they are subjected to a regular system of fattening in order to increase their charms. Thus at an early age they are compelled to drink daily about a gallon of curdled milk, the swallowing of which is frequently enforced by the whip; the result is extreme obesity. In hot climates milk will curdle in two or three hours if placed in a vessel that has previously contained sour milk. When curdled it should be well beaten together until it assumes the appearance of cream; in this state, if seasoned with a little salt, it is most nourishing and easy of digestion. The Arabs invariably use it in this manner, and improve it by the addition of red pepper. The natives of Wayoro will not use red pepper, as they believe that men and women become barren by its use." This combination of curdled milk and pepper must surely have been handed down from the time of the "Arabian Nights," and of the "worthless pastrycook who made cream tarts without pepper. See the "Story of Noureddin Ali and Bedreddin Hassan." At this part of their journey the travellers lived in clover, being able to obtain not only milk, but butter, coffee, tobacco, and salt in exchange for red beads; and plantains were in abundance. Indeed, throughout the country of Wayoro "plantains in various forms were the staple article of food, upon which the inhabitants placed more dependence than upon all other crops. The green plantains were not used, when boiled, as potatoes; but when peeled they were cut in thin slices, and dried in the sun until crisp; in this state they were stored in the granaries, and when required for use they were boiled into a pulp and made into a most palatable soup or stew. Flour of plantains was remarkably good; this was made by grinding the fruit when dried as described." The ripe fruit was never eaten by the natives, and was hard to procure. They are in the habit of plucking it shortly before it is quite ripe, and of burying it for eight days in a deep hole. The fruit was then found to be mature, and after being reduced to a pulp was mixed with water; fermentation commenced in a couple of days, and a very potable plantain cider was thus procured. The butter that was offered for sale was good in quality, but the mode of protecting it from the air was unpleasant. It was invariably packed in a plantain leaf, but frequently the package was plastered with cowdung and clay, which when dry formed a hard coating. In an earlier part of their journey, when at Obbo (4° N. lat., 32° 40′ E. long.), two degrees north of Kisoona, Mr. Baker had experienced even more disgusting filthiness in relation to food, etc. He had great difficulty in breaking his cow-keeper of his custom of washing the milk bowl with cow's urine, and even mixing some with the milk; he declared that, unless he washed his hands with the urine before milking, the cow would lose her milk. The Obbo natives have another unpleasant habit—namely, that of washing out their mouths with their own urine—a habit which, Mr. Baker thinks, may have originated in the total absence of salt in their country. The Latookas, on the contrary, who are their next neighbours, and reside within forty miles of them, are very clean, and milk could be purchased in their own vessels without fear. In concluding these dietetic sketches, we may remark that at Latooka, where the travellers were detained for some months, they established a garden which quickly yielded onions, beans, melons, yams, lettuce, and radishes; and it is to be hoped that from this focus these useful vegetables may obtain a wide circulation. The only indigenous yams which they discovered were not altogether satisfactory. The yams were cooked, and the men ate them voraciously. Hardly ten minutes had elapsed before Mr. Baker, who from the first had been suspicious regarding them, and had therefore abstained from the banquet observed the men gradually to disappear, and from a distance he heard signs of unmistakable grief, such as occasionally emanate from the ladies' cabin when a rough sea is running. In the course of an hour the whole party had recovered. It is worthy of notice that "many of the yam tribe are poisonous. There is one variety much liked at Obbo, but which is deadly in its effects should it be eaten without a certain preparation. It is first scraped, and then soaked in a running stream for a fortnight. It is then cut into thin slices, and dried in the sun until quite crisp. By this means it is rendered harmless. The dried slices are pounded in a mortar with flour and used as a kind of porridge." Amongst other vegetable products it may be mentioned that Obbo yields an excellent species of gourd, ten inches long and seven in diameter, "the most delicate and the best-flavoured that I have ever eaten;" also two varieties of castor-oil plant, and a beautiful species of plantain with a crimson stem to the leaf. On the borders of the great lake, the Albert Nyanza, which is intersected by the equator, they gathered some mushrooms, the true *agaricus campestris* of Europe, a remarkable instance of the wide geographical range of a plant. The lake itself abounded in fish, several varieties of which exceed 200 lbs. After noticing an excellent fish called the "baggera," which is also found in the Nile, he adds—"I also obtained from the natives an exceedingly good fish, of a peculiar form, having four long feelers at the positions that would be occupied by the limbs of reptiles; these looked like rudiments of legs. It had somewhat the appearance of an eel." Happy man! He little thought he was eating a *lepidosiren!*

We regret that Sir Samuel Baker has not given us more information regarding the state of Medicine and Surgery in the various countries through which he passed. We learn however, that donkey's dung, when rubbed upon the skin, is a certain cure for rheumatism, and that it is largely imported into those countries in which this useful animal is not found. At Shooa many of the servants were ill, suffering generally from headache and from ulcerated legs, the ulcer commencing on the ankle bone and extending to such a degree that the patient became unable to walk. The native treatment of headache is simple cauterisation of the forehead in spots burnt with a hot iron close to the roots of the hair. We regret that we hear nothing of the treatment of the ulcers.

(a) The bitterness was probably owing to the presence of magnesia.

It is said to be the habit of the workmen in the "black country" in England "to heave a brick" at any apparent stranger to that region; the Bari tribe in the same way "shoot a poisoned arrow at a stranger unless he is powerfully escorted. The effect of these poisoned arrows is very remarkable. A man came to Mr. Baker for Medical aid, who five months previously had been wounded by a poisoned arrow in the leg, below the calf. The entire foot was eaten away by the action of the poison; the bone rotted through just above the ankle, and the foot dropped off. "The most violent poison," says Mr. Baker, "is the produce of the root of a tree, whose milky juice yields a resin that is smeared upon the arrow. It is brought from a great distance, from some country far west of Gondokora. The juice of the species of euphorbia common in these countries is also used for poisoning arrows. Boiled to the consistence of tar, it is then smeared upon the blade. The action of the poison is to corrode the flesh, which loses its fibre, and drops away like jelly, after severe inflammation and swelling. The arrows are barbed with diabolical ingenuity, and are so arranged that the barbed blade, thickly smeared with poison, remains in the wound, and before it can be cut out the poison is absorbed by the system." On their homeward journey the travellers were attacked by the Bari natives with their poisoned arrows, but the speed of the arrows was so comparatively slight that they were easily evaded, and no one was wounded by them. The effects of this African poison on the system are so different from those resulting from the poisoned arrows of the South American Indians, and, indeed, so unique, that we trust that some of our English traders on the Upper Nile will endeavour to procure specimens of it for physiological and chemical investigation.

We conclude these miscellaneous jottings with a brief record of a remarkable Surgical case, for the accuracy of which Mr. Baker does *not* hold himself pledged. The authority for it is a Bornu man, who was one of Mr. Baker's party. "There is a country adjoining Bornu, where the king was so fat and heavy that he could not walk until the doctors *opened his belly and cut the fat out*, which operation was repeated annually."

FOREIGN CORRESPONDENCE.

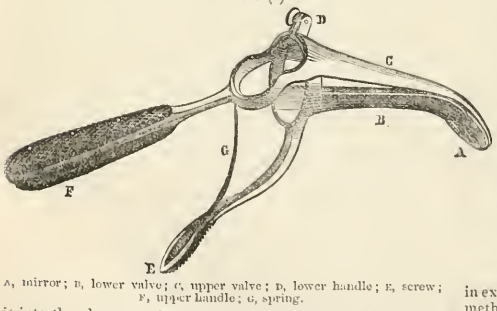
FRANCE.

THE PARIS EXHIBITION.

SURGICAL INSTRUMENTS—(*Continued*).

In my last letter I promised to give a figure and description of the portable laryngoscope of Dr. Labordette. This little instrument, which may be successfully employed by any tyro in the art of laryngoscopy, resembles, in its general appearance, an ordinary bivalve uterine speculum. Its upper valve describes a slight curve, which enables the operator to insert

FIG. 1.(a)



A, mirror; B, lower valve; C, upper valve; D, lower handle; E, screw; F, upper handle; G, spring.

it into the pharynx, after passing under the soft palate. Its lower valve, which is much shorter, only reaches the root of the tongue, and stops short of the epiglottis.

The speculum, being introduced into the mouth, is pressed down as far as possible. The upper branch, C, resting against the pharynx, the operator presses upon the lower handle, D,

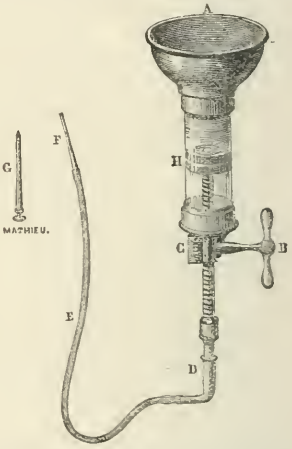
(a) This instrument will be found figured in the *Medical Times and Gazette* for 1866, vol. I. p. 213.

and thus opens the instrument by parting the two valves. It is then quite easy to see in the mirror, A, the reflected image of the back part of the epiglottis, of the upper and lower vocal cords, and even of the trachea itself, when the glottis is not contracted. The ventricles of the larynx can also be easily surveyed with a little practice.

Although we fully believe in the utility of this little instrument in laryngeal practice, we should hardly feel inclined to apply it (according to the author's views) to cases of asphyxia, or to use it in the treatment of subjects who have remained some time under water. It may be convenient to perceive the mucosities, which obstruct the air-pa-sages, with the laryngoscope; but the mere removal of these will not go far in restoring suspended animation.

Among the numerous appliances which have been lately invented for making experiments on the lower animals, I particularly noticed an apparatus for the transfusion of blood,

FIG. 2.



A, infundibulum; B, screw acting by means of C, a wheel, upon H, the hollow piston, which communicates through D with E, the elastic tube; F, metallic tube which fits into the canula of G, the small trocar.

which has been successfully employed by several eminent physiologists. The idea of this instrument belongs to M. Moncoq, of Caen; it has been greatly improved by M. Mathieu, the Surgical instrument-maker.

A hollow glass cylinder supports a large funnel (A), which receives the blood flowing from an open vessel; the piston, which moves in the chamber of the passage, is perforated, and communicates with an elastic tube, the lower extremity of which can be adapted to the canula of a small trocar (G). When the instrument has been filled with blood, the vein into which it has to be injected is punctured with the trocar, and, this being withdrawn, the metallic tube (F), which corresponds to the extremity of the india-rubber one, is inserted into the canula; and by forcing the piston upwards, the blood is poured into the corresponding vein. The rapidity of the operation is such that no clots can possibly be formed, and the penetration of air is rendered impossible by the inverted position of the recipient.

Humane physiologists will be pleased to learn that the sulphuric ether spray has of late been largely employed in Paris for the production of local anæsthesia in experiments on living animals, according to Dr. Richardson's method. To describe the numerous instruments employed for this purpose would be too long. I would only recommend to the attention of your readers the convenient little apparatus constructed for this purpose by M. Mathieu.

A curious and interesting application of the pulverisation of liquids is the process of *aquapuncture*, by which small jets of water, propelled with great force, are made to penetrate the skin. Powerful effects are said to result from this novel mode of revulsion in cases of local neuralgia and various other diseases.

The subject of pulverisation naturally leads me to speak of the water-cure. The popularity which this mode of treatment has acquired in France is eloquently attested by the innumerable models of douches, baths, etc., which this department of the Medical exhibition contains. Among these my attention was especially attracted by a most formidable apparatus. It consists of 72 small jets, disposed in parallel circles, so as to encircle the body, and act at once upon the whole surface of the skin. I had seen models of this sort before, but never so perfect in its kind. The effect produced must be something terrific: I should scarcely feel inclined to try it on myself.

Before concluding this letter I must caution those of your readers who have a taste for mechanics not to cultivate too close an acquaintance with the many ingenious machines which adorn the outer circle of the Exhibition. Several accidents have already occurred, chiefly on account of the pressure of the crowd, which drives the front ranks into dangerous proximity to the "swift-revolving wheels." A few weeks ago a gentleman who had incautiously approached a printing-press got his right hand entangled in the machinery, and frightfully mutilated. He was removed to the Hospital Necker, where amputation of the arm was performed by Dr. Desormeaux, but the operation proved fatal within a few days.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MAY 21, 1867.

JOHN SIMON, Esq., President, in the Chair.

DR. BRISTOWE and Mr. BRUCE presented their report on Mr. Isaac Brown's

TUMOUR OF THE UTERUS.

The tumour was found to spring from the posterior surface of the body and neck of the uterus, and was enclosed by a dense wall consisting partly of thickened peritoneum, and partly of condensed tumour substance. The mass of the growth presented three types of structure, which passed insensibly one into another, and which may be considered as indicating the progress of its development. 1st. A fibro-muscular portion continuous with the proper substance of the organ, and forming the greater part of the outer wall. 2nd. A fibrous stroma containing less muscular tissue than the former, with groups of cells and nuclei of an adenoid character, but without the limiting membrane usually seen in such structures. 3rd. Areolar and cystlike spaces formed apparently by the degeneration and disappearance of the cells and nuclei. Altogether, the specimen presented many points of interest with respect to the transitional forms of structure so often found in morbid growths.

Mr. NUNN exhibited a specimen of stricture of the œsophagus and a large tumour removed from the female breast.

Dr. ANSTIE exhibited a specimen of dilatation of the arch of the aorta in relation to the characters of the pulse indicated by the sphygmograph.

Dr. CHARLES T. WILLIAMS exhibited a specimen of

BLACK DEPOSIT IN THE LARGE INTESTINE FROM THE PRESENCE OF MERCURY.

The patient, who was of a naturally vigorous constitution, and died at the age of 74, had, for the last forty-three years of her life, taken a grain of calomel every night, except on some twenty occasions, when she substituted blue pill or grey powder. In addition, she took an extra dose of calomel, varying from a half to one grain, twice a week. The drug had been originally prescribed on account of sluggish action of the liver; but, finding relief from it, the patient persisted, in opposition to all Professional advice, in its use, and for many years she enjoyed a good appetite and digestion. Ten years ago she had pleurisy of the left side, followed by partial collapse of the chest on that side, and two years ago disease of the heart, both aortic and mitral, was detected. Latterly the bowels were easily moved, half a teaspoonful of castor oil being sufficient to act on them, and the motions were very dark and offensive. For a year and a half she had suffered from flatulence and fugitive pains in the right and left iliac regions, which were always relieved on the bowels being moved by the habitual doses of calomel. A few days before her death she complained of pain in the rectum, and Dr. Frederick Bird found a prolapsus ani, and noticed the protruded intestine to be of a very dark colour. The heart's action became very weak, the breathing very short and panting, the legs œdematous; albumen appeared in the urine; and the patient sank and died. On post-mortem examination the heart's tissue was found in various stages of fatty degeneration, the aortic and mitral valves affected with atheromatous disease, the left lung contracted, and adherent on all sides to the pleural cavity; the liver was shrunk to a third of its size, its texture granular, the fibrous tissue hypertrophied, the cells either shrunk, or in a state of fatty degeneration; the gall-bladder was distended with bile, and contained gall-stones; the kidneys were in a state of granular degeneration; the stomach and small intestines had some spots of ecchymosis; Lieberkuhn's follicles were strongly marked, but the mucous membrane was otherwise healthy, and rather pale; the internal surface of the large intestine was remarkably black, mottled in parts with patches of a lighter hue, the colour commencing at the ileo-cæcal valve, and contrasting strongly with the light colour of the small intestine. The mucous membrane was smooth, unbroken by ulceration or abrasion of any sort, and presented the appearance of a toad's back. The colouring matter was found under the microscope to be situated in the sub-mucous tissue, and on chemical analysis it yielded globules of metallic mercury. The liver was analysed, and also examined by the spectroscope for mercury, but none could be found. Dr. Charles T. Williams remarked that this case differed from recorded cases of mercurial poisoning, and probably stood alone as an instance of the daily administration of small doses of mercury for so long a period without having induced salivation, soreness of the gums, necrosis of the bones, or other symptoms which usually follow from a long course of the drug. He also drew attention to the facts of its only being deposited in the large intestine, of its being absent from other organs, of its deposit giving rise to no symptoms of inflammation or thickening, and, indeed, only to slight intestinal symptoms towards the end of the patient's life. He was of opinion that though mercury was only detected in the large intestine, the degenerations and alterations of structure in the heart, liver, and kidneys were promoted by the deteriorating influence of the metal on the whole system, as the patient, who was originally of strong constitution and great energy, had of late years presented a peculiarly pallid and cachectic appearance, and yet was remarkably free from the wrinkled and decrepit appearance of old age.

Dr. CRISP thought the case related of great interest, and tended to show that the effects of mercury upon the system were not so deleterious as many Practitioners supposed. He had known an old lady who lived to the age of 84. About the age of 40 she had a cancerous tumour of the breast removed by the late Sir Astley Cooper. After this operation she took blue pill every night up to the time of her death, believing that the mercury had been the means of preventing a recurrence of the malignant disease. Dr. Crisp could not attribute any of the morbid appearances in Dr. Williams's case to the effects of mercury. This patient lived to far beyond the average age allotted to man, and he (Dr. Crisp) believed that the bodies of any hundred individuals of the same age would present morbid appearances of as grave a character as in this lady. Young Practitioners who saw morbid changes in the aged were too apt to forget that these changes were often salutary, and tended to prolong life. We all, as we advanced in age, ossified and stiffened, and the various wheels of the machinery were thus balanced and life prolonged.

Mr. THOMAS SMITH exhibited a specimen of

CHRONIC OSTEITIS OF THE FEMUR.

The specimen was removed by amputation from a girl aged 10½ years. The disease had been in progress four years. It commenced with pain in the thigh, and was soon followed by enlargement of the limb. The pain was very severe, and was seated chiefly in the lower end of the femur. Two years after the commencement of the disease an incision was made down to the anterior surface of the bone, freely dividing the periosteum; this gave exit to a quantity of bloody lymph, mixed with grits of bone. The femur was found to be surrounded by porous, soft calcareous matter, into which one could easily thrust one's finger-nail; the knee-joint appeared to be unaffected. A drainage tube was passed through the limb. By this proceeding the child was greatly relieved. The pain subsided, the swelling gradually diminished, and at the end of six months the wound had healed. Shortly after

the closure of the external wound, the thigh again began to enlarge, and the pain returned. In January of the present year the child again came under Mr. Smith's care in a state of extreme emaciation and suffering, begging herself to have the limb removed. The lower part of the thigh was at this time greatly enlarged, and the knee-joint distended with pus. The limb was at once removed by amputation, and from this the child perfectly recovered. The specimen shows the effect of long-continued inflammation on the bone tissue. The shaft of the femur is somewhat enlarged, and the bone texture in this part is greatly condensed and indurated. The articular end of the femur is but slightly enlarged; the cancellous texture is, however, plentifully infiltrated with lymph in various stages of disintegration, being apparently purulent about the epiphysial line. This lymph is particularly abundant in the condyloid part of the bone, where it completely fills and obscures the cancellated structure, extending up to and beneath the articular cartilage of the knee-joint, which latter is in parts removed by ulceration.

Dr. Greenhow showed a specimen of tumour of the ileum, with intussusception of that part of the gut into the cæcum, and a specimen of enlarged heart.

Dr. Sanderson exhibited a

CANCEROUS TUMOUR

which compressed the aorta and surrounded the cardiac axis; and the left pleura of the same patient, in which numerous cancerous nodules were imbedded. The patient, a middle-aged man, had been under his care at the Middlesex Hospital for three months, during the first of which intense pain and the presence of an expansively pulsating tumour in the epigastric region appeared to indicate aneurism of the aorta, or of the cœliac axis. Subsequently he became affected with dyspnœa, the pain extended to the left flank, and it was found that liquid was collecting in the left pleura. The chest symptoms, although at first relieved by paracentesis, became more and more urgent, and eventually led to the fatal termination. In the meantime, the abdominal tumour increased in size, and became nodulated, so that during the last six weeks no doubt existed as to its nature. After death it was found that a cancerous mass, as large as an orange, lay in front of the aorta, to which it firmly adhered. Its position was such that the cœliac axis and its branches were completely imbedded in it, while its lower part was incorporated with the head of the pancreas. Upwards the growth could be traced in front of the aorta, through the diaphragm into the posterior mediastinum (which was occupied by another mass of cancer), and thus became continuous with innumerable nodules of soft cancer, which not only filled the posterior mediastinum, but were scattered over the whole surface of the left costal and diaphragmatic pleura. The liver was abundantly beset with cancerous tubera, some of which were umbilicated. The glands in the small omentum were enlarged and cancerous, and a small nodule of cancer was found in one kidney. The other organs, and particularly the peritoneum and right pleura, were free.

Dr. Crisp exhibited the following specimens:—

I. THE LEG OF A HORSE, WITH A WAX CAST.

The animal had been nerved six years before, and did constant brougham work after the operation. The flexor tendon (*perforans*) suddenly ruptured, and the horse was killed. Both the ends of the cut nerve terminated in bulbous extremities.

II. SEVERAL SPECIMENS OF STRAW AND HAY

in the stomachs and intestines of the lower animals, producing death.

III. LARGE ENCEPHALOID TUMOURS IN A LAMB.

The tumours, which weighed about three pounds, commenced on the periosteal covering of the ribs, and the largest found its way externally. The disease was of rapid growth.

Dr. Murchison presented

TWO ATROPHIED LIVERS,

from patients who had died under his care in the Middlesex Hospital, having most of the characters usually attributed to cirrhosis, but at the same time very different from one another. Both were very small, and nodulated on the surface, and in both the course had been very chronic, and there had been the clinical symptoms during life of partial obstruction, such as ascites, etc. One of the livers, obtained from the body of a man who had been an inveterate drinker, weighed forty-three ounces, and on section was found to be very dense, and to contain a greatly increased amount of white fibrous tissue. The other liver was from the body of a woman, who had not been intemperate, and weighed only twenty-six ounces; it was more friable than in the natural state, the lobules were smaller, and the secreting cells were loaded with oil, but there was no evidence of any increase of the fibrous element of the gland. Dr. Murchison called attention to the views entertained by different pathologists as to the nature of cirrhosis. Some, like Dr. Budd, described it as consisting of an hypertrophy of the fibrous framework of the liver, resulting from adhesive inflammation; others thought there was a simple atrophy of the glandular tissue, without any increase of fibrous tissue; while a third class, including Förster, described two forms of cirrhosis—one in which the fibrous tissue was increased, and another where it was not increased. The two livers exhibited seemed to illustrate these two varieties, but the liver with no increase of fibrous tissue appeared to be independent of spirit-drinking, and it was very doubtful if it ought to be classified with true cirrhosis.

Mr. George Eastes, on behalf of Mr. Birkett (unavoidably absent), exhibited a

DRAWING AND PLASTER CAST OF A YOUTH AGED 18,

in whom all the bones of the right lower extremities were hypertrophied. The patient's limbs were symmetrical until he was 5 years old, when (1854) he fell and struck his right patella. From that time the increase of the right limb in length was much more rapid than that of the left. He came under Mr. Birkett's observation in 1858, and again in February, 1867. The following measurements were taken:—

	In 1858; age 9.		In 1867; age 18.	
	Right.	Left.	Right.	Left
	Inches.	Inches.	Inches.	Inches
From ant. sup. spin. of ilium to head of fibula	15½	13¾	19¾	17½
Excess of right over left	2	—	2⅔	—
From head of fibula to termination of external malleolus	10½	10½	17¾	16¾
Excess of right over left	¾	—	1	—
Patella transversely by calipers	—	—	3⅔	2
Excess	—	—	1⅔	—
Over patella transversely by tape	—	—	6¼	3⅛
Excess	—	—	3⅛	—

The right leg had always felt weak; no joint was ever diseased. The muscles of the left thigh and of the left calf, though of course not so long as those of the right leg, yet seemed more developed transversely; for the right thigh and calf were slightly less in circumference than the corresponding portions of the left limb. The right leg being nearly four inches longer than the left, the right half of the pelvis was much tilted up, and there was a corresponding lateral curvature of the spine. Neither Mr. Birkett nor Mr. Eastes had been able to find an account of any similar instance of hypertrophy of all the bones of a limb.

Mr. Carr Jackson exhibited a specimen illustrative of fracture of the neck of the thigh-bone.

Mr. Bruce exhibited a

POPLITEAL ANEURISM IN PROCESS OF SPONTANEOUS CURE, GIVING RISE TO GANGRENE OF THE FOOT,

for which he was indebted to Mr. Erichsen. A man, aged 65, had been admitted into University College Hospital, under the care of Mr. Erichsen, for gangrene of the foot, which presented the character of gangrene due to embolus of the tibial artery. On examination, however, it was found that a tumour of the size of an egg existed in the ham, of the existence of which the patient had not been aware. There was little doubt as to its true nature, although, from the absence of pulsation and bruit, the diagnosis was not certain. Amputation was performed above the knee, and on examination the tumour proved to be an aneurism undergoing spontaneous cure, layers of laminated fibrine filling about two-thirds of the cavity, the central parts in the line of the artery being occupied by an ordinary black coagulum which also extended into the vessel both above and below the sac. The popliteal vein was closely bound down to the wall of the aneurism, by which it had been greatly compressed; the tibial and superficial veins were much distended, and contained coagula. It is interesting to notice, in connexion with this case, that a man may have an aneurism for a long period without being aware of its existence, that the condition of the vein and its relation to the sac may greatly imperil the safety of the limb, and that gangrene may ensue without any apparent exciting cause in the course of a spontaneous cure.

Dr. H. Beigel reported a case of

EXCESSIVE DEVELOPMENT OF VEGETABLE GROWTH IN THE HUMAN STOMACH.

The patient, a diamond-cutter, aged 40, was admitted into the Metropolitan Free Hospital, on a Saturday, under Dr. Beigel's care. The symptoms which he exhibited led Dr. Beigel to believe that it was a case of lead-poisoning. Obstinate constipation, tenderness of the hypogastric region with exacerbations at evening, paleness of the gums, etc. Iodide of potassium and a clyster were therefore ordered. When visited on the morning after admission, the nurse showed about a pint of the dark green fluid exhibited to the Society. At first sight, it looked like a saturated solution of sulphate of copper, but the chemical test showed this assumption to be erroneous. On examination by the microscope, the fluid was seen to consist of innumerable sporules and cells of vegetable nature. The epithelial cells, which the fluid likewise contained in abundance, were also tinged with the dark green colour. The bowels acted after the clyster, the fæces being of natural consistency and likewise slightly green-coloured. No alteration took place in the condition of the patient, except that the heat in the mouth, of which he complained from the beginning, became intolerable. There was no desire for food; ice was the only thing he longed for. The hypogastric region remained tender, yet not in an excessive degree; there was no fever, no headache; pulse 100; tongue thickly furred, very hot, and perfectly dry. On Tuesday morning he again vomited about two pints of the green fluid described above; though of somewhat lighter hue, yet the microscopic appearance was the same as in the first. Of the nature of the growth no definite opinion could yet be formed; whether it be a fungus, or perhaps a peculiar form of sarcina, further investigation must show. The fluid had been examined by Dr. Lionel Beale, but yet no decided opinion was arrived at. The patient died on the following Monday morning, without exhibiting any symptom which could account for his death. Unfortunately the relatives objected to a post-mortem examination.

OBITUARY.

THE LATE DR. WILLIAM DUIRS.

It was with feelings of the deepest regret that all naval officers, be they Medical or Executive, saw, by the intelligence brought by the last West Indian mail, that Deputy Inspector-General Dr. William Duirs, M.A., in charge of the Port Royal Hospital, had been carried off by yellow fever. The list of naval Medical officers has lost one of its very best men by this occurrence. We suppose there is not a single Medical officer who would not admit this; while the officers and men of the other branches, from the highest to the lowest ranks, will deplore the departure of a friend whose amiable qualities had bound him to them. With a modesty and peculiar suavity of manner, he combined a decision of purpose and firmness of character which commanded respect and esteem. We speak advisedly when we say that more than once were his amiable and personal qualities made use of by his superiors, much to his discomfort, for the purpose of re-establishing a proper feeling in officers' messes which had become disorganised; yet he spoke but little, and when officers of the messes referred to were asked what he had said or done to effect his purpose, the invariable answer was, "Well, he never seemed either to say or do anything, but we somehow felt ourselves pulling more together and getting happier." He was perfectly aware that yellow fever was raging at Port Royal when he left home a few months ago to assume his charge; but as he had frequently faced death in this as well as in other forms before, he would not for a moment allow personal considerations to interfere with public duty. So, after encountering similar dangers in other parts of the world, he has fallen a sacrifice to his country's service at Port Royal, and now we have but to trust that that country will do what it can to show its approbation of the services of such a man by treating his bereaved widow and children with ample liberality.

J. W. WILTON, ESQ.

We regret to announce the death of Mr. J. W. Wilton, late Senior Surgeon of the Gloucester Infirmary and Municipal Charities, and a magistrate of the city. He was F.R.C.S. Eng. (Hon.) 1843, and Member 1816, St. Bartholomew's, where he was House-Surgeon under Abernethy. He was a true conservative Surgeon, and, when in his prime of manhood, a good and careful operator, and one possessed of great tact in diagnosis and sound judgment in the treatment of Surgical and Medical diseases. Mr. Wilton was a man who won the esteem of all who knew him. His good qualities were shown both at home and abroad. He was most exemplary as a husband, father, and friend, and most just when exercising his magisterial duties. He was 71 years of age, and departed full of years and honour. For the past four years he suffered from the effects of paralysis, and, becoming seriously worse on Tuesday, expired quietly on Thursday morning, May 23.

DR. BANON,

VICE-PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

We regret to announce the death of the Vice-President of the Royal College of Surgeons in Ireland, which took place rather suddenly on Tuesday, May 28, at his residence in Fitzwilliam-square, Dublin. Dr. Banon became a Fellow of the Irish College of Surgeons in 1814, graduated as M.D. at St. Andrews in 1851, and obtained the Fellowship of the Royal College of Physicians of Edinburgh in 1852. He was Physician to the Mountjoy Female Convict Prison and to the City Prisons, and was one of the Surgeons to Jervis-street Hospital. To the various Medical journals he contributed papers on hermaphroditism, vesico-vaginal fistula, injury of the brain, aneurism of the arteria innominata, etc. Had he lived only a few days longer, he would, as a matter of course, have been elected to the Presidency of the College in which he had all but completed his year of office as Vice-President.

NEW BOOKS, WITH SHORT CRITIQUES.

The Prescriber's Companion. By Alfred Meadows, M.D. Lond., M.R.C.P., Physician to the Hospital for Women, and to the General Lying-in Hospital, etc. London: Renshaw. Pp. 231.

*** This extremely useful little manual has been republished in accordance with the new British Pharmacopœia, in an improved shape and increased size. The official substances are printed in the ordinary manner, whilst those not recognised in the authoritative Codex are printed in red letter. As a useful and convenient handbook for those who want to vary their mode of prescribing the same remedies, we know of none better, especially now, when such extensive and important additions have been made to its lists of substances useful in Medicine.

Supplement to Dr. Scoresby-Jackson's Note-book of Materia Medica. By Angus Macdonald, M.A., M.D., F.R.C.S.E., Lecturer on Materia Medica and Therapeutics at Surgeons' Hall. Edinburgh: Maclachlan and Stewart. Pp. 46.

*** If any one should want a clear, concise, and accurate statement o the changes effected by the new Pharmacopœia, let us recommend this little volume as not only giving the changes effected, but also as describing the new substances introduced, their properties, preparations, and doses.

The Westminster Review. July, 1867.

*** Contains a very interesting article on "Protective Resemblances" amongst animals—that is, the protection of concealment afforded to animals by their resemblance to the natural objects amongst which they live, as snow, sand, etc. The resemblance of some unprotected animals to others of different *genus* which possess protection is curious—*e.g.*, some white moths resemble others which birds will not eat; some unarmed snakes escape molestation because they resemble other venomous ones, etc. There are articles of great interest on Seneca, and on the philosophy of music, besides a delirious paper by Mazzini.

On the Principles of Æsthetic Medicine; or, the Natural Use of Sensation and Desire in the Maintenance of Health and the Treatment of Disease. By Joseph Peel Catlow, M.R.C.S. London: John Churchill and Sons. Pp. 326.

*** An unusual title and an unusual style of book, dealing with such matters as the relations of art to nature, which the author would make one, the abstract notion of life, organic sensibility, and the like. The author is no more, and we adhere to the rule of "*de mortuis nil nisi bonum*;" otherwise we might have to speak of the volume somewhat differently. The difficulty of making out whether it is really all nonsense or something above the average in common sense will be understood when we say that, although the two last sentences in the book are of a normal length, the two which immediately precede them occupy together more than a full-sized octavo page.

The Irritable Bladder: its Causes and Curative Treatment. By F. J. Gant, F.R.C.S., Surgeon and Pathological Anatomist to the Royal Free Hospital. Second Edition. London: John Churchill and Sons. Pp. 186.

*** This little work Mr. Gant has considerably enlarged, though some of the additions have not, we think, been over-judicious. Thus a chapter on the chemical and microscopical examination of urine generally is not calculated to be of much benefit to the class of readers most likely to peruse the book. Apart from this, we have nothing to say that is not commendatory, and gentlemen who have to deal with this most troublesome affection will find Mr. Gant's work extremely useful as a clear and practical guide.

The Waste of Infant Life. By J. Brendon Curgenven, M.R.C.S., Secretary to the Harveian Society.

*** Very properly, this subject is beginning to attract general attention, and if any arguments were wanted to justify or encourage this movement, they would be amply supplied by this paper. It is really time *something* were done, when 56,000 infants perish yearly, mostly from preventible causes. Mr. Curgenven does not, however, in this paper touch upon what is, after all, the difficult part of the subject—the means of obviating this excessive mortality.

Germinal Matter and the Contact Theory. By James Morris, M.D. Lond. London: John Churchill and Sons. Pamphlet.

*** Dr. Morris seeks to account for the propagation of diseases by Dr. Beale's theory of germinal matter produced in a thousand various living organisms, partially dried, and conveyed through the air from individual to individual. The pamphlet is written with great care, and the views as applied to epidemics are of great importance. Viewed by their light, many things become clear, and if, after due investigation, we can fully accept them, our knowledge will have made a very great stride.

The Hunterian Oration for the year 1867. By John Hilton, F.R.S., etc. London: Bell and Daldy. Pp. 46.

*** This oration, of which we gave a very full *résumé*, has been published at the request of the President and Council of the College of Surgeons. To many who with us delightedly listened to the illustrious Surgeon of Guy's, this separate publication will be most acceptable.

Contributions to Practical Midwifery.—I. The Use of the Forceps. By Arthur B. Steele, M.R.C.S.E., Lecturer on Midwifery, Liverpool Royal Infirmary School of Medicine. Reprint.

*** Mr. Steele advocates the use of *one* variety (medium) of forceps, and a much more frequent recourse to it than is ordinarily adopted, "whenever, in fact, we are satisfied that the labour, if left to nature, will be tedious and protracted," and whether the os uteri be fully dilated or no. Force, both in extraction and compression, may also, he holds, be used with benefit, and the forceps is in all cases to be preferred to ergot.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 27, 1867:—

John Canning Wilkins, University College; Philip Downing Hopgood, Chipping Norton; Lawrence Clapham, Thorney, near Peterborough; John Lloyd, Abergwilli, Carmarthen; Septimus Evans, Devonport, Devon.

The following gentleman also, on the same day, passed his First Examination:—

Meredith Townsend, St. Thomas's Hospital.

University of Dublin.—At the summer commencement, held on Wednesday, July 3, in the Examination Hall of Trinity College, the following Degrees and Licence in Medicine and Surgery were conferred:—

Baccalaurei in Medicina.—Geo. Fred. Helm, Jacobus Henricus Reynolds, Samuel Kyle Cotter, Georgius Edvardus Dobson, Carolus Fredericus Pollock, Henricus Jagoe, Alexander D. Henry, Valentinus Duke, Samuel Lane Popham, Gulielmus Albertus Paxton, Gulielmus Tyndall Watson, Geraldus Franciscus Yeo, Horatio Scott, Alfredus Lloyd Owen, Hor. Edmund Maunsell, Gul. Henricus Goode, Carolus G. M'Dowell. *Magistri in Chirurgia.*—Henricus Jagoe, Samuel Kyle Cotter, Carolus Fredericus Pollock, Samuel Lane Popham, Geraldus Franciscus Yeo, Jacobus H. Reynolds. *Doctores in Medicina.*—Geo. Fred. Helm, Mauritius Collis, Gulielmus Tyndale Watson. *Licentiatus in Medicina.*—Ricardus Johannes Kinkead.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Corley, Anthony, H., M.D., F.R.C.S.I., Lecturer on Anatomy, Carmichael School of Medicine, has been appointed Surgeon to Jervis-street Hospital, Dublin.

Richards, W., M.D., has been appointed a Junior Assistant-Physician to the City of London Hospital for Diseases of the Chest.

Tait, R. L., M.R.C.S.E., has been appointed House-Surgeon to the Clayton Hospital and Wakefield Dispensary.

Vacher, T., L.R.C.P. Edin., L.R.C.S. Edin., has been appointed Assistant House-Surgeon to the Birkenhead Borough Hospital.

BIRTHS.

Bateman.—On June 28, at 32, Compton-terrace, Canonbury, the wife of H. Bateman, F.R.C.S.E., of a daughter.

Farr.—On June 27, at 20, West square, St. George's road, the wife of Dr. G. F. Farr, of a son.

Kealy.—On the 2nd inst., at Ashby-house, Gosport, the wife of J. R. Kealy, M.D., of a son.

Park.—On June 24, at Anglesey, Hants, the wife of G. Park, M.D., Royal Artillery, of a son.

Russell.—On June 27, at Neath, the wife of J. Russell, M.R.C.S.E., of a son.

Salomon.—On June 20, at Melme, Sweden, the wife of E. Salomon, M.D., F.R.C.S., St ckholm, of a son.

Shepard.—On June 25, at the Twyn, Usk, the wife of Alex. J. Shepard, M.R.C.S., of a daughter.

Williams.—On June 26, at 1, Montagu-square, Hyde-park, the wife of A. W. Williams, M.D., of a son.

MARRIAGES.

Duff—Sewell.—On June 11, at the Chapel of the Holy Trinity, Quebec, J. Duff, M.D., Surgeon, Royal Artillery, to Alice, fourth daughter of the W. Sewell, Esq., Sheriff of Quebec.

Edwards—Gardner.—On June 13, at Rugeley, Henry Nelson Edwards, Esq., Surgeon, of Shrewsbury, to Catherine, only child of the late Thomas Gardner, Esq., of Rugeley.

Henderson—Ramsey.—On June 26, at South Park-terrace, Hill-head, Glasgow, F. Henderson, M.D., Helensbrough, to Georgina, youngest daughter of the late G. Ramsey, Esq., Merchant, Trinidad.

Lynes—Hughes.—On July 2, at Holy Trinity Church, Coventry, by the Rev. W. Lynes, curate of Mountsorrel, and the Rev. A. W. Wilson, vicar and rural dean, Edward Lynes, M.D., to Ellen, second daughter of Andrew Hughes, Esq., of that city.

Marriott—Ray.—On June 29, at St. George's, Hanover-square, D. Marriott, M.B., of Sevenoaks, to Mary, eldest daughter of T. Ray, Esq., late of Eynsford, Kent. No cards.

Nankivell—Aitken.—On June 27, at St. John's Church, Pendeen, Cornwall, H. Nankivell, M.D., of Doncaster, to Etbeldreda, youngest daughter of the Rev. R. Aitken, incumbent of Pendeen, Cornwall. No cards.

Rowney—Odling.—On June 25, at Trinity Church, Marylebone, Dr. T. H. Rowney, Queen's College, Galway, to Emma Louisa, eldest daughter of F. Odling, Esq., 52, Devonshire-street, Portland-place. No cards.

Stedman—Bartlett.—On June 26, at the parish church, Hove, Brighton, J. Stedman, M.R.C.S.E., of Islington, to Mary Ann, youngest daughter of the late J. Bartlett, Esq., of Hove, Brighton. No cards.

DEATHS.

Bryant, J., M.D., at Colebrooke-villa, Finchley, formerly of the Edgware-road, on July 1, in his 80th year.

Jamieson, J., M.D., at Clifton-terrace, Edinburgh, on June 17, aged 78.

Johnson, E., M.D., at Malvernbury, Great Malvern, formerly of Umberslade-hall, Warwickshire, on June 24, aged 66.

Taylor, G., M.D., Deputy Inspector-General of Hospitals, on board the steam-ship *Natal*, six days after leaving Mauritius, on May 8.

Vade, J. K., M.D., at 4, Lower Berkeley-street, Portman-square, on July 1.

VACANCY.

Surrey Dispensary.—Physician.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bottle Union.—Mr. H. M. Champneys has resigned the First District; area 8000; population 3293; salary £45 per annum. The Second District; area 7824; population 1533; salary £32 per annum. Also the Workhouse; salary £15 per annum.

Colne Union.—Mr. Willmot has resigned the District; area 27,689; population 8879; salary £200 per annum. Also the Workhouse, included with District.

Chippenham Union.—Dr. Ryley has resigned the Sutton Benger District; area 11,571; population 3190; salary £76 13s. 4d per annum.

St. Faith's Union.—Mr. F. H. Orris has resigned the Norwich District; salary £35 per annum.

Solihull Union.—Mr. William Kinabell has resigned the Tamworth District; area 14,492; population 2798; salary £35 per annum.

APPOINTMENTS.

Bootle Union.—Walter Somerville, M.D. Edin., L.M. Edin., to the Muncaster District.

Builth Union.—Hugh Bennett, M.R.C.S.E., L.S.A., to the Abergwessin District.

Hastings Union.—William Campbell, L.R.C.S. Edin., L.M., to the Third District.

Islington Parish.—Thomas Cotton, M.D. St. And., L.R.C.P., L.S.A., to the Schools.

Newmarket Union.—John L. Newton, M.R.C.S.E., L.S.A., to the Ninth District.

Rye Union.—John A. Woodhams, M.R.C.S.E., L.S.A., to the First District and the Workhouse.

Upton-on-Severn Union.—James Fernie, M.R.C.S.E., L.S.A., to the Third District.

Wareham and Purbeck Union.—William E. Humble, M.D. Lond., M.R.C.S.E., L.R.C.P., L.S.A., to the Corfe Castle District.

Wigan Union.—Caleb S. Hilton, M.D. St. And., M.R.C.S.E., L.S.A., to the Upholland District.

Wigton Union.—Thomas Rigg, M.D. Edin., M.R.C.S.E., to the Bowness District.

Witney Union.—John P. Atkinson, M.D. Glas., L.R.C.P., L.R.C.S. Edin., to the Second Bampton District.

The Harveian Oration was delivered, in English, on Saturday, June 29, at the Royal College of Physicians, by the accomplished President, Dr. Alderson.

Puerperic Fever.—A second case of this disease is said to have occurred at Chelsea.

The New St. Thomas's Hospital.—It is reported that the Princess of Wales contemplates, should her health permit, laying the foundation-stone of the new Hospital.

ROYAL INSTITUTION OF GREAT BRITAIN. — At the General Monthly Meeting, on Monday, July 1, 1867 — William Pole, Esq., F.R.S., Vice-President, in the chair—John Andrew Baumbach, Esq., Louis J. Crossley, and Joseph Ince, Esq., F.L.S., were elected members. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

CHOLERA IN ROME.—A telegram of the 28th ult. states that twenty fatal cases of cholera had occurred in the Holy City on the previous day. Recent telegrams not only confirm this intelligence, but state further that the disease is spreading to an alarming extent.

SMALL-POX IN INDIA.—We learn with regret that not only has the cholera introduced by the Hurdwar pilgrims committed havoc in our Indian Army, but that the small-pox has now made its appearance at Meerut, where the 19th Hussars are stationed, and is attacking the troops.

ROYAL VISITS TO HOSPITALS. — On Tuesday the Queen of Prussia paid a visit to St. Bartholomew's Hospital. On Monday her Prussian Majesty, accompanied by her Majesty the Queen, visited the Windsor Workhouse, or, as one of the daily newspapers calls it, "that excellent *receptical* for the poor of Windsor and the surrounding parishes, known as the Windsor Union, situate in a very healthy spot at Old Windsor, on the border of Windsor Great Park."

CHOLERAIC DISEASE IN LONDON. — The Registrar-General's return for the week ending the 29th ult. shows three cases of deaths from cholera and choleraic diarrhœa. Two of the cases proved fatal in twenty-four hours from the commencement of the attack.

NEW OFFICIERS DE SANTÉ IN THE FRENCH ARMY.— By a decree of June 29 two new appointments have been made in this department of the *armée de terre*. M. Pau Saint-Martin, Chief Physician of the second class of the Military Hospital of Versailles, has been promoted to the first class, in the place of M. Finot, deceased. The vacancy in the second class, caused by M. Saint-Martin's promotion, has been filled by M. Adrien d'Albas, *Médecin-Major* of the Military Hospital of Versailles.

HIPPOPHAGY AT NANCY.—The report of the recent convention of butchers at Nancy shows the efforts of M. Pineaud, a local butcher, to cultivate a taste for horseflesh to have been attended with success. Several hundred kilogrammes of the flesh have been bought. The report says that properly fed and prepared horseflesh resembles beef so closely that it is difficult to distinguish it from beef, when cooked. The *bouillon* is like dry beef, and the *bouilli* has a pleasant flavour of fowl.

CATTLE PLAGUE INQUIRY.—For the week ending June 29, one fresh outbreak has been reported—viz., at East Ham Level, in Essex. Eleven cases of cattle plague are reported to have occurred during the week, being a decrease of two on the previous return. Nine of the diseased animals were killed, and two died. There were twenty healthy cattle slaughtered to prevent the spread of the disease. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,720, and 56,894 healthy cattle have been slaughtered to prevent the spread of the disease.

THE DUBLIN UNIVERSITY AND THE BRITISH MEDICAL ASSOCIATION.—At the annual meeting of the Senate of Trinity College, held in the Examination Hall, on Saturday, June 29, the Right Hon. Judge Keatinge, Pro-Vice-Chancellor, in the chair—present, Dr. Stokes, M.D., LL.D., D.C.L., F.R.S., Regius Professor of Physic; the Rev. Dr. Moore, Vice-Provost; the Rev. Dr. Luby, Dr. Hart, LL.D., Dr. Toleken, M.D., Senior Fellows; the Rev. Mr. Jellett, Secretary to the Senate, the Rev. Dr. Haughton, M.D., F.R.S., the Rev. Mr. Galbraith, the Rev. Mr. Poole, Junior Fellows of Trinity College; and the Rev. Mr. Giles—it was resolved to confer honorary degrees upon the following nobleman and gentlemen:—His Excellency the Right Hon. Charles Stanley, Viscount Monck, Governor-General of Canada, LL.D., *honoris causâ;* Digby Pilot Starkey, ditto; John Forster, ditto; James Syme, Edinburgh, M.D., *honoris causâ;* Henry Wentworth Acland, Oxford, ditto; George E. Paget, Cambridge, ditto; Francis Sibson, London, ditto; Henry W. Rumsey, Cheltenham, ditto; William Bowman, London, ditto; Sir James Simpson, Bart., Edinburgh, ditto; Thos. P. Teale, Leeds, ditto. The Medical degrees will be conferred at a special commencement, to be held during the meeting of the British Medical Association in Dublin.

DR. PAUL BROCA has resigned the post of Sécrétaire-Général to the Paris Anthropological Society, which he has held since its foundation.

IN a little work, entitled "The London Surgical Home; or, Modern Surgical Psychology," Dr. Scoffern takes Mr. Baker Brown to task in a very amusing manner. The irony is, however, so keen as to be, we fear, to some dull minds, altogether imperceptible, and we suspect that Dr. Scoffern would have done more good had his attacks been slightly blunter.

LAST Saturday, Sir Thomas Watson distributed the prizes to the Medical students of King's College. The learned Baronet was enthusiastically received by a large assembly, over which he presided with the tact for which he is so justly celebrated. To each prizeman he addressed a few words of compliment and encouragement, but did not deliver any formal speech, at which we think some of the audience were disappointed. The following are the names of the scholars of the year:—Alfred Henry Garrod, Senior Scholar; Alfred Cotterill, Second Year Scholar; Robert Wishart Lyell, Francis Warner, and George Le Hunt Rowland, Junior Scholars; Robert Wishart Lyell and George Le Hunt Rowland, Warneford Scholars, Class I.; William Alfred Hunt, Warneford Scholar, Class II.

KING'S COLLEGE HOSPITAL. — On Wednesday, the 26th ult., the old students of this Hospital dined together at St. James's Hall. Professor Bentley occupied the chair, and was supported by about seventy old friends, many of whom had been separated for years, and who now met to interchange that cordial grasp of the hand that "maketh all men one." The following Professors honoured the meeting with their company:—Professors Sir William Fergusson, Partridge, Miller, Guy, Cartwright, Johnson. We were glad to notice that so many gentlemen in active practice in the provinces were present, amongst whom we observed—Messrs. Bishop, of Tonbridge; Brace, of Bath; Bradley, of Greenwich; Bridgwater, of Harrow; Cockburn, of Chatham; Davis, of Brentford; George, of Richmond; Harris, of Wotton-under-Edge; Holberton, of Hampton; Liddon, of Taunton; Parsons, of Dover; Playne, of Maidenhead; Pout, of Yalding; Pritchard, of Retford; Thompson, of Oxford; Yates, of Oldham; etc. Of the London men, we noticed Messrs. Wood, Henry Smith, Lavies, Duffin, Anstie, Spencer Watson, Royes-Bell, Bellamy, Byas, Faulie Clarke, Nunn, Hyde Salter, Parkinson, Lawson Meadows, Murray, Heath, Way, Propert, Shillingford, Head, Tonge, Truman, Simms, White, King, Johnson-Smith, Middlemist, Fowler, Straker, King, Easton, Berrell, etc. The whole of the arrangements were under the management of Dr. Buzzard and Mr. Francis Mason, who kindly acted as hon. secs., and to whom a most enthusiastic vote of thanks was unanimously given for the admirable manner in which they had discharged their onerous duties. The meeting separated shortly before eleven o'clock, having passed a most agreeable and harmonious evening.

INEFFICACY(?) OF LIEBIG'S ARTIFICIAL MILK. — In the course of the discussion which took place in the French Academy on Tuesday week relative to the mortality of infants at nurse, some very important facts were pointed out by MM. Guibourt and Depaul, who suggest that the subject of the employment of artificial milk as food for young infants should be reported on by a commission appointed for the purpose. M. Depaul's reason for this is that he has tried the following experiment with the milk, and has been dissatisfied with it as a substitute for mother's milk. M. Depaul fed four children with a very carefully prepared supply of Liebig's artificial milk. Two of the children had been born before the full time; they were regularly fed with the milk, but both died. The third was a healthy child, born at the full time; it was fed with the milk; after two days the stools assumed a greenish colour, and on the third day death supervened. The fourth child was also healthy, but it also died on the fourth day. M. Wurtz suggested that Baron Liebig should be consulted upon the subject.

THE SURGEON OF THE WHALER "DIANA." — On Saturday a special meeting of the Hull Local Marine Board was held at the Board-office, under the presidency of Mr. H. J. Atkinson, the chairman, for the purpose of presenting to Mr. Charles Edward Smith a testimonial, as a recognition of his services as Surgeon of the whaler *Diana*, of Hull, which was beset in the Arctic seas during last winter. On Mr. Smith entering the room he was informed that a special meeting of that Board had been called in consequence of a

despatch having been received from the Board of Trade awarding him a testimonial for his gallant conduct under very trying circumstances. Accompanying the testimonial there was a case of Surgical instruments. The testimonial, which was beautifully illuminated, ran as follows:—"To Charles Edward Smith, of Coggeshall, Essex, late Surgeon of the whaler *Diana*, of Hull, in recognition of his generous, humane, and unwearied services to the crew of that vessel, while they were suffering from a severe attack of scurvy, aggravated by their dangerous position and detention in the ice, and by want of food, clothes, and other necessaries. This testimonial, accompanied by a case of Surgical instruments, is presented by the Board of Trade, this 24th day of June, 1867.—Richmond, President, Thomas Gray, Assistant, Marine Department." The Board of Trade had requested that the testimonial should be presented in a public manner, and the chairman trusted that through the press the presentation would receive the same publicity which the story of the hardships and sufferings of the unfortunate crew had done. Mr. Smith, in reply, said he was at a loss for words suitably to return thanks for the great honour which had been done him. It was but seldom that such an adventure as his occurred to Surgeons, either at sea or on land, and it was more than he could expect, occupying as he had done the humble position of Surgeon on board a whaler, to receive such a distinguished honour. He could not refrain from saying a word on behalf of the gallant crew, for when he looked back upon that fearful voyage, and the dreadful struggle they had for life under overwhelming hardships, worn out with hard work and constant pumping, with a debilitating disease among them, he must say that the country ought to be proud of those brave men. Captain Allen Young had journeyed to Hull to see the vessel, and he had expressed the greatest admiration for those gallant fellows, most of whom had been reared and trained by that grey-headed old man, Captain Gravill, who perished amid "that dreary waste of snow and ice." In conclusion, he desired sincerely to thank the British Government, through the Hull Local Marine Board.

Jones *v.* Richards.—(Court of Common Pleas, Guildhall, July 2: Before Mr. Justice Keating and a Common Jury.)—Mr. Serjeant Tindal Atkinson and Mr. B. Rigby were counsel for the plaintiff, and Mr. Giffard, Q.C., and Mr. Thrupp for the defendant. This was an action by the plaintiff, a Physician and General Practitioner in Caversham-road, Kentish-town, to recover £29 12s. for his fees for examining the defendant, who had sustained an accident on the Great Eastern Railway, and for preparing a Medical report on his case and attending as witness at the trial of an action which the defendant had brought to recover damages from the Great Eastern Railway Company. The defendant's action was tried at Guildford, and he recovered £600 against the Company. Two other Medical gentlemen were also engaged for the defendant in his action—Dr. Westley and Dr. Walsh. The defendant paid the plaintiff £18 as sufficient compensation, with which the plaintiff was not satisfied. The learned Judge told the jury, if that sum was not sufficient in their judgment, to find a verdict for such further sum as they thought sufficient. The jury returned a verdict for the defendant.

Dr. M'Clintock on the Tendencies of Uterine Therapeutics.—"The advance in our knowledge of gynecology within the last thirty-five years is, I believe, unexampled in any former age, or in any other branch of the healing art. This extraordinary development has resulted partly from a closer study of pathology, but mainly, I would say, from improvements in our means of diagnosis, more particularly by the acquisition of the vaginal speculum and of the uterine sound. An additional sense was thus brought to our aid in the investigation of uterine disease, whilst the range of another sense was materially extended. Hence it is not at all surprising that the diagnosis of every uterine lesion should now be made to rest nearly altogether on objective phenomena. One of the latest writers upon uterine diseases thus expresses himself on this point:—'Of all organs the uterus is now most subservient to the laws of physical exploration.' (Sims, p. 144.) Now, this habitual reliance on physical signs in the forming of our diagnosis, together with the modern discovery of the frequent existence of misplacements of the uterus, and an exaggerated etiological importance attached to these misplacements, are so many circumstances which, in my humble judgment, have tended to impart too much of a mechanical or physical character to the prevailing views of uterine pathology, and to the principles of treating many uterine diseases. It is matter of notoriety that with a large number of gynecologists on the other side of the Channel, remedies of a purely mechanical nature seem at the present day to find most favour. The agencies chiefly relied on by them for producing a sanative effect upon the uterus, are such as exert a direct physical influence, and are selected with this very intention. Is it not on this ground, and none other, that incision of the cervix uteri is so frequently had recourse to for dysmenorrhœa and sterility, being employed by some Practitioners with a frequency that is perfectly astonishing, and also with an occasional fatality that is not at all astonishing? 'The whole philosophy of this operation (writes one of its ablest advocates) consists in opening the canal, and keeping it open, so as to allow the easy passage of the menstrual flow.' He is speaking, you perceive, of dysmenorrhœa, of which he tells us in another page that 'it is only a *symptom of disease*, which may be inflammation of the cervical mucous membrane, retroflexion, anteflexion, fibroid tumour in one wall of the uterus or the other, contraction of the os internum or os externum, flexures of the canal of the cervix, either acute or gently curved, either at the os internum, at the insertion of the vagina, or extending through the whole length of the canal, all of which are but so many mechanical causes of obstruction, which must be recognised and remedied if we expect to cure the dysmenorrhœa.' (Sims, p. 143.) But to resume. In the innumerable contrivances for supporting the uterus and correcting curvatures, deviations, flexions, and versions of this organ, do we not see a mechanical theory predominating above every other? 'An undue development of this mechanical tendency,' observes Dr. Tilt, 'gave rise to a system of uterine orthopædics, in which the incontestable symptoms of inflammation of the womb were accounted for by its displacements.' ('Uterine Therapeutics,' p. 169.) But perhaps the most convincing proof (though a melancholy one) of the supremacy of these iatro-mechanical ideas is to be found in the keen rivalry—even among men of real ability and deserved eminence—about the priority of invention of some apparatus for dilating, or cutting, or stretching, or rectifying the uterus, or suchlike purpose. If the reproductive organs of the female be governed by no other laws than those which regulate the movements of a piece of machinery, we should concentrate all our attention on the improvements of our mechanical appliances, and attach the highest importance to them. But I need not remind you that in addition, but superior, to physical and chemical laws, are the vital laws [let us add, nervous, sensitive, emotional influences—Ed.] which exercise their influence as certainly, as powerfully, and as constantly upon the sexual organs in health and disease as on any other part of the living organism."

Mr. F. Vacher, in a pamphlet recently published, shows from 364 cases of first pregnancy occurring in unmarried women confined in the Edinburgh Royal Maternity Charity, that by far the greater proportion of women had been seduced by men in their own sphere of life, and that soldiers and students were not so bad as they were represented to be in this respect. Unfortunately, although we, to a certain extent, agree with him, we cannot do so entirely, nor can we accept from his premises the conclusion "that only a very trifling per cent. of the seduced have been led astray by men moving in a higher sphere than themselves," for it is precisely as to these that he has no grounds on which to go. The great majority of those who are led astray by those in a sphere superior to their own, are so far taken care of that they are not allowed to come into a Maternity Hospital, and this little circumstance totally invalidates Mr. Vacher's reasoning. We do not, however, say that he is wrong, but, except the whole mass of illegitimate births could be analysed in the way he has treated those which have come under his notice, we do not see how any exact conclusion could be attained.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We have received Mr. Plant's elaborate paper, which we shall make use of next week.

Dr. Emile Nicolas.—Your name is not in our list of subscribers.

A Retired Fellow, Plymouth.—Messrs. Skey and Wormald have both occupied the President's Chair, the former gentleman in 1863, and the latter in 1865. Mr. Kiernan declined being put in nomination for the office of Vice-President.

A Father.—The result of the recent examination may perhaps be known about the 12th inst., soon after which you will hear from the Secretary.

Amicus.—Your good opinion so well expressed is very complimentary. The tactics you expose are not calculated to benefit the candidate. We shall be glad to receive the interesting case.

A Collector.—The original painting by Holbein is in the possession of the Barber Surgeons' Company. The cartoon is in the Council-room of the College of Surgeons.

"Sanitas," writing to the *Sunday Times*, suggests that cases are not rare in which sudden death takes place in the bath, the immediate cause of the fatality being recorded as "apoplexy," but if the facts were still further investigated, the seizure might most probably be referred to the use of the bath too soon after a full meal, that notices be set up in a conspicuous place in every bath, cautioning the public not to bathe within two hours after a meal.

A DISCLAIMER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the last number of your journal it is stated that I am a Licentiate of the Apothecaries' Company. I beg to inform you that I have no claim to that honour. I am, &c. T. B. CURLING.

29, Grosvenor-street, June 29.

A MEDICO-ETHICAL QUESTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you permit me through your columns to put the following question to my Professional brethren?—

How far is a Medical man justified in advising, upon Medical grounds, the separation of husband and wife?

I am led to propound this question from having known lamentable and irreparable consequences to follow upon the advice given having gone to the effect practically of a divorce *a thoro.* I should feel grateful to any of my brethren who will give me their counsel through your pages for my guidance on this matter, of which is now before me an anxious case.

London, June 26. I am, &c. MEDICUS.

COMMUNICATIONS have been received from—

MEDICUS; Mr. SHEPARD; Mr. JOHNSTON; Mr. MACLAGAN; Dr. W. G. DALGAIRNS; Mr. PLANT; Mr. CULLEN; SANITAS; Mrs. BAINES; Mr. CURLING; H. L. M.; Mr. W. S. WATSON; Dr. SEDGWICK; Dr. MARSTON; Dr. ALDERSON; Mr. ATKINSON.

BOOKS RECEIVED—

Braithwaite's Retrospect, vol. lv.—Cullen on the Bustard—Report of the Constantinople Cholera Conference—Glasgow Medical Journal, July—Half-Yearly Abstract of the Medical Sciences, vol. xlv.—British and Foreign Medico-Chirurgical Review, July—Journal of Cutaneous Medicine, No. 2—Bigelow on Ununited Fracture—Medical Mirror, No. 43—Warren's Surgical Observations—Westminster Review, No. 63—Edinburgh Medical Journal, No. 145—Twenty-first Report of the Commissioners in Lunacy—Annual Report of the Public Health of the Borough of Newcastle-on-Tyne—Microscopical Journal, No. 27—Watts' Dictionary of Chemistry, Part 40—Tyndall on Sound—New York Medical Journal, No. 27.—Pharmaceutical Journal, No. 97.

NEWSPAPERS RECEIVED—

Laboratory—Gazette Hebdomadaire—Pall-mall Gazette—Scotsman—Medical Press and Circular—Nottingham Daily Guardian.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 29, 1867.

BIRTHS.

Births of Boys, 1084; Girls, 1076; Total, 2160.
Average of 10 corresponding weeks, 1857-66, 1828·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	603	515	1118
Average of the ten years 1857-66	612·9	563·4	1176·3
Average corrected to increased population..	..	..	1294
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	3	10	1	4	7	5	..
North ..	618,210	2	5	3	2	7	8	7	..
Central	378,058	2	2	4	1	2	2	6	..
East ..	571,158	5	4	4	1	7	9	14	..
South ..	773,175	3	5	8	2	8	7	16	..
Total ..	2,803,989	15	19	29	7	28	33	48	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·164 in.
Mean temperature	59·1
Highest point of thermometer	80·9
Lowest point of thermometer	42·5
Mean dew-point temperature	47·9
General direction of wind	N.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 29, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending June 22.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending June 29.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2160	1421	1118	80·9	40·5	59·1	0·00	0
Bristol (City) . .	165572	35·3	132	74	154	79·2	47·0	60·6	0·00	0
Birmingham (Boro')	343948	43·9	259	167	115	73·9	45·2	58·6	0·10	10
Liverpool (Borough)	492439	96·4	296	285	233	72·2	50·8	59·7	0·00	0
Manchester (City) .	362823	80·9	309	205	1193	80·0	45·0	58·2	0·01	1
Salford (Borough) .	115018	22·2	83	58	42	77·5	45·0	58·9	0·01	1
Sheffield (Borough).	225199	9·9	206	119	88	79·0	47·0	57·8	0·01	1
Leeds (Borough) .	232428	10·8	362	118	114	84·5	40·5	59·8	0·00	0
Hull (Borough) .	106740	30·0	77	49	42	..	..	..	..	..
Newcastle-on-Tyne, do.	124960	23·4	121	66	54	73·0	44·0	57·8	0·04	4
Edinburgh (City) .	176081	39·8	140	85	87	73·7	49·0	59·1	0·00	0
Glasgow (City) .	440979	87·1	336	257	220	72·8	46·1	58·9	0·03	3
Dublin (City and some suburbs) .	319210	32·8	207	1157	165	77·2	40·2	58·8	0·02	2
Total of 13 large Towns . . .	6187764	34·8	4788	3061	2525	84·5	40·2	58·8	0·02	2
					Week ending June 22.	Week ending June 22.				
Vienna (City) .	(1863) 560000	..	..		June 22. ‡ 357	..	..	§ 58·1	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·164 in. The mean daily reading was above 30 in. on every day after Monday, June 24. The barometrical pressure decreased from 29·95 in. at the beginning of the week to 29·81 in. by 6 p.m. on Sunday, June 23; increased to 30·41 in. by 9 a.m. on Thursday, June 27; decreased very slowly to 30·40 in. by 9 p.m. on Friday, June 28, and still further decreased to 30·11 in. by the end of the week.

The general direction of the wind was N.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 55·3°.

APPOINTMENTS FOR THE WEEK.

July 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

8. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

9. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. J. Thomson, Esq., "On the Ethnology of Cambodia, with some Account of the Jacoons of Jahore." H. C. Creswick, Esq., "On the Syllabic Characters in Use amongst the Key Negroes." Mr. G. M. Sprout, "On the Probability of a Stone Age."

10. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

11. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

12. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

International Exhibition, 1862.—The only Prize Medal
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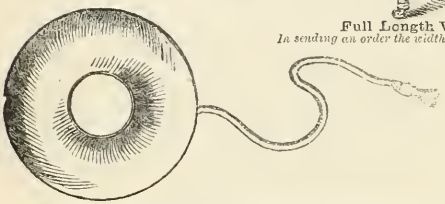

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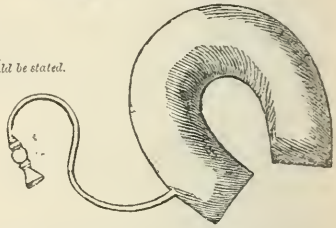

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital: Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture I.

INTRODUCTORY—DESCRIPTION AND SELECTION OF INSTRUMENTS.

(Continued from page 2.)

I will now say a few words in explanation of the instruments recommended.

1. *The Lever.*—The form adopted is that of Mr. Symonds, of Oxford. The blade or fenestra is rather strongly arched; and there is a joint in the shank, enabling the instrument to be doubled up for greater convenience of carrying.

2. *The Forceps.*—There are several excellent models. I am not bigoted in favour of my own. The best are Simpson's and Roberton's. The essential conditions to be contended for are:—That the blades have a moderate pelvic curve; a head-curve also moderate; an extreme divergence between the fenestræ of three inches; the length of the arc of the cranial bow of about seven inches, to adapt it to the elongation of the fœtal head during protracted labour. There should be between the springing of the bows and the lock a straight shank to lie parallel with its fellow, to carry the lock clear of the vulva and save the perinæum. In my forceps the shank is further lengthened by a semicircular bow, which forms a ring with its fellow when locked. The use of this is to give a hold for the finger of one hand whilst the other grasps the handles. In Simpson's instrument there is a hollowed shoulder at the head of each handle which answers a similar purpose, and perhaps better. The lock should be easy—a little loose. The English lock is not, I think, surpassed for convenience; but the French lock is a good one. The handles should not be less than five inches long. They should afford a good grasp. Unless they are strong and of fair length, they cannot exert any compressive force for want of leverage, for the fulcrum is at the lock. I think all forceps that have very short handles, especially if not provided with some means, such as the ring or projecting shoulders, which will enable the operator to use both hands, ought to be rejected. A two-handed instrument can be worked with the utmost nicety and economy of muscular force. A single-handed instrument is necessarily a weak one. The absurd dread of possessing powerful instruments has long been the bugbear of English Midwifery. It has been sought to make an instrument safe by making it weak. There can be no greater fallacy. In the first place, a weak instrument is, by the mere fact of its weakness, restricted to a very limited class of cases. In the second place, if the instrument is weak, it calls for more muscular force on the part of the operator. Now, it is sometimes necessary to keep up a considerable degree of force for some time, and not seldom in a constrained position. Fatigue follows; the operator's muscles become unsteady; the hand loses its delicacy of diagnostic touch, and that exactly balanced control over its movements which it is all-important to preserve. Under these circumstances he is apt to come to a premature conclusion that he has used all the force that is justifiable—that the case is not fitted for the forceps—and takes up the horrid perforator; or he runs the risk of doing that mischief to avoid which his forceps was made weak. The faculty of accurate graduation of power depends upon having a reserve of power. Violence is the result of struggling feebleness, not of conscious power. Moderation must emanate from the will of the operator; it must not be looked for in the imperfection of his instruments. The true use of a two-handed forceps is to enable one hand to assist, to relieve, to steady the other. By alternate action the hands get rest, the muscles preserve their tone, and the accurate sense of resistance which tells him the minimum degree of force that is necessary, and warns him when to desist. A similar reasoning applies to the perforator and the craniotomy forceps.

Roberton's Tube for Prolapsed Funis.—There are many contrivances for returning the prolapsed cord. Braun's is an excellent one; one by Hyernaux, of Brussels, is also very ingenious and useful, but Roberton's appears to me the most simple. By the postural method, indeed, all instruments may be dispensed with; but still it is well to be provided with this very simple apparatus.

The Perforator.—The instruments designed to open the skull are classed in the Obstetrical Society's Catalogue under four types:—1. The wedge-shaped scissors having blades cutting on the outer sides. 2. The spear-head. 3. The conical screw. 4. The trepan. Mr. Roberton uses a spear-head. The form most in use in this country is some modification of Smellie's wedge-shaped scissors; but many of these instruments are very clumsy and inefficient. It requires sometimes considerable force to penetrate the cranium. A weak instrument is here especially dangerous: it is apt to slip, to glide off the globe of the head at a tangent, and to tear the uterus. The conditions of efficiency are these:—The perforating blades must be strong and *straight*. The curve sometimes given is of no use whatever, as it throws the force out of the perpendicular. The shanks must be long, eight inches at least, so as to reach the pelvic brim without interfering with the working of the handles. There should be a broad rest for the hand to give a powerful and steady hold. Almost all the instruments in use fail in this point. The best of all those I have tried and seen is the modification of Holmes' and Naegele's by Dr. Oldham; it fulfils every indication. On the Continent, especially in Germany, the trepan, first introduced by Assalini, at times variously modified, is chiefly used. To use a trepan, the crown of which can hardly be less than an inch in diameter, you must have at least an equal amount of surface of the cranium accessible, and the crown must be applied quite perpendicularly to the cranium. Now, these conditions are not always present. I have been much pleased in some cases with the trepan of Professor Ed Martin, of Berlin. But in others, where the pelvic deformity was great, and especially where it was necessary to perforate after the body was born, there was no room for the passage or application of the instrument. I found no difficulty with Dr. Oldham's perforator; it will run up through the merest fissure wherever the finger will go to guide it, and will readily penetrate any part of the skull. This, then, is the perforator to be preferred.(a)

The Crotchet.—The design of the crotchet was to seize and extract, by taking a hold inside the cranium, after perforation. For this purpose the best crotchet is the one used in the Dublin Lying-in Hospital. It has a curve in the shank, which is set in a transverse bar of wood for a handle. This gives an excellent hold for traction, that does not fatigue or cramp the operator. The crotchet, however, as an extracting instrument, has been greatly displaced by the craniotomy forceps. The use to which I now almost restrict the crotchet is to break up the brain and tentoria, so as to facilitate evacuation and collapse of the skull.

The Craniotomy-Forceps.—The use of this instrument is twofold. It should be able to break up and pick away the bones of the cranial vault, and to grasp firmly the skull to serve as an extractor. In the majority of cases the latter action alone is necessary. For extraction, the essential condition is to have the blades so made that when grasping they shall be perfectly parallel. Unless this be obtained, the blades will only pinch at one point, and the effect will be to break through the bone, to tear through the scalp, and to come away. Each time the attempt is renewed, if ever so little traction is necessary, you are exposed to the same mishap, until you may find no place left that will afford a hold. To remedy this defect, many instruments are armed with horrent teeth and spikes, which only add to the evil. Whereas, if the blades are parallel, they gripe firmly over a wide surface, and do not break away. The hold is obtained by compression, by accurate apposition, not by teeth or spikes. To secure the grasp without fatiguing the hands by compressing the handles, I have adapted a screw to bind the handles together. It is also important that the blades should be distinct so as to admit of being introduced separately, like the ordinary forceps. These principles are fairly carried out in my craniotomy forceps, and others as well as myself are well satisfied with its merits. But recently they have been more conveniently adapted in an instrument devised by my friend Dr. Matthews. He makes the female blade to revolve on a central pivot, so that the moment it touches by either end the included scalp and cranium, it adjusts itself in accurate parallelism,

(a) It is figured in the Obstetrical Society's Catalogue of Instruments, p. 167.

and the grip is secured by a sliding ring on the shanks. With such an instrument it is very rarely necessary to take a second hold.

The Cephalotribe.—I have marked the cephalotribe with a note of interrogation, because it has scarcely yet established a footing in this country, and because, although I believe it is a valuable instrument, the work it is designed to do can be accomplished by the craniotomy-forceps. Cases, however, arise where a preference may fairly be given to it. The unwieldy bulk and formidable appearance of most of the Continental cephalotribes, requiring, as they do, an assistant in their use, must preclude their extensive adoption. Almost every objection is removed in Sir James Simpson's instrument. Sufficient power to crush down the base of the cranium after perforation is combined with a minimum of size and weight. But this instrument need not add to the load already accumulated in the bag. It may be left at home, and fetched when wanted.

The Decapitating Hook.—This instrument will be very rarely required, but when the occasion arises the service it renders is very great. In a protracted transverse presentation, when the child is dead from compression, the uterus spasmodically and closely contracted upon the child, turning cannot be accomplished without subjecting the mother to much suffering and some danger. In such a case it is obviously preferable—the child being past help—to save the mother to the utmost. This hook can be carried over the child's neck, and by a movement of sawing and traction, the head can be severed in a few seconds. Then the body is extracted by pulling on the prolapsed arm. The head remaining alone *in utero* can be easily extracted by the craniotomy-forceps. Thus delivery can be effected, with little cost to the mother, in a few minutes. The same object can be attained by a pair of strong scissors (Dubois) which is made to divide the cervical spine. An excellent decapitator was exhibited (b) by Jacquemier; in general form it resembles Ramsbotham's, but it has a concealed or sheathed decapitator, the cutting being effected by movable blades and saw-links. Pajot, again, decapitates by carrying a strong cord round the neck.

The Syringe, Uterine Tube, and Caoutchouc Dilators.—These are perhaps the most frequently useful of all the instruments enumerated. A Higginson's syringe is fitted with a mount, to which the flexible uterine tube or any one of my dilators can be adapted. Three sizes of the dilators are sufficient. They are now in extensive use at home and abroad.

The *elastic male bougies* are useful as the best means of inducing labour—that is, of provoking labour and the preparatory stage.

The *porcupine-quill* is the most convenient instrument for piercing the membranes; and, although a common pin or steel-pin will answer the purpose, these are not always at hand. The special instruments, as stilets, etc., are really superfluous.

The remaining instruments require no special description.

And, lastly, let me add a few words concerning the obstetric hand, as the master instrument of all, not only as guiding all the rest, but as performing many most important operations unarmed. In ordinary labour it is the only instrument required. It is also the only instrument called for in many of the greatest difficulties. In malpresentations, in placenta prævia, in many cases of contracted pelvis, in not a few cases where, after perforation, the crotchet and craniotomy-forceps have failed to deliver, the bare hand affords a safe and ready extrication. One cannot help seeing that practice is often determined by the accidental perfection of or familiarity with particular instruments. Thus, a man who has only reached that stage of obstetric development which is content with a short forceps will be armed with a good perforator and crotchet. He cannot fail to acquire skill and confidence in embryotomy, and greatly to restrict the application of the forceps. Again, the preference generally given on the Continent to cephalotripsy over craniotomy and extraction by the crotchet or craniotomy-forceps is the result of the great study directed to the perfecting of the cephalotribe. At the present day we may boast of having good and effective instruments of all kinds, each capable of doing excellent work in its own peculiar sphere, and moreover endowed with a certain capacity for supplanting its rival instruments. For example, the long forceps is adapted to supplant craniotomy in a certain range of cases of minor disproportion. Hence it follows that it is of more importance to have a good forceps which can save life than it is to have a good perforator and crotchet which destroy life. At the same time, it is eminently desirable to possess the most perfect means of bringing a fœtus through a very narrow pelvis, in order to exclude or to minimise the necessity of resorting to the Cæsarian section. Our aim should then be to get the most out of all our instruments—to make each one as good of its kind as possible. And admirable is the perseverance, marvellous and fertile the ingenuity, that have been brought to this task. I will not say it has all been misdirected; but certainly the cultivation of the hand, the study of what it can do in the way of displacing cold iron, has been much neglected. It would be not less instructive than curious to carry our minds back to the days when the forceps and other instruments now in use were unknown, and to confront the problem which our predecessors, Ambroise Paré, Guillemeau, and others, had to solve—namely, how to deliver a woman with deformed pelvis without instruments. That they did successfully accomplish in many instances with the unarmed hand what we now do by the aid of various weapons, there can be no doubt. If this implies greater poverty of resources on their part, it not the less implies also greater manual skill. I am confident that the possession of instruments, especially of the craniotomy instruments, has led, within the last century, to a neglect of the proper uses of the hands, which is much to be deplored. We are only now recovering some of the lost skill of our ancestors.

Obstetric Surgery has this peculiarity: its operations are carried on in the dark, our only guide being the information conveyed by the sense of touch. The mind's eye travels to the fingers' ends. The hand thus possesses an inestimable superiority over all other instruments. Its every movement is regulated by consciousness. It is right, then, to ascend a little the stream of knowledge, and to endeavour to recover from the experience of our forefathers their secret of *chirurgery;* to regain, to extend, that power over the great instrument from which the Surgeon derives his name.

(b) See Obstetrical Society's Catalogue, p. 47.

ORIGINAL COMMUNICATIONS.

ON "HAY ASTHMA," "HAY FEVER," OR SUMMER FEVER.

By WILLIAM PIRRIE, M.D.

(Concluded from page 4.)

In a case of hay fever be closely watched, it may often be remarked that there are more or less well-marked remissions and exacerbations; the pulse, which at night was frequent, falls in the morning very decidedly, but only to rise in the evening again to the morbid rate of the previous night. This may give to some cases much of the character of chronic remittent fever, with which, indeed, it has sometimes been confounded. Moreover, the periodicity of return, and the co-existence of certain vegetable emanations, might favour the conclusion that the complaint, if not truly such, is at least closely allied to the malarial group. On the other hand, the idea of a malarious impression is negatived by the comparatively small number of sufferers; by the equal prevalence of the complaint in very dry though warm summers as in moist and sultry ones; and by its total disobedience, in many instances, to quinine and other anti-periodic remedies. I know one gentleman who suffered frequently from ague, and also every season from hay fever, in India. The former yielded to quinine; the latter pursued its course uninfluenced by that remedy.

I think, then, we may conclude that there is a prolonged form of slight febrile indisposition which has certain characteristic features by which it may be distinguished from other disorders resembling it in some respects. Further statements from victims of this complaint themselves, the history of the attack, the circumstances in which it first appeared, its persistence after removal from the sphere of contraction; its evident increase and decrease with a rise and fall of temperature; the similarity of many of its features to those of the after-effects of grave disorders universally ascribed to great solar heat: the evident increase of headache, spinal weariness, and general distress consequent on exposure to strong light and the midday sun, lead me to conclude that much more importance should be attached to these agents as the cause of this form of illness than has hitherto been the case. Whether these agents

are favoured by any concurring and unusual telluric or atmospheric conditions—as, for instance, the presence of an unusual amount of ozone, as has been suggested—I cannot say with any confidence. Perhaps the electricity of the atmosphere and of the sun's rays may have some influence in the induction and maintenance of this complaint, for I remember one gentleman complained very much of being sensibly worse in dry weather and immediately before a thunderstorm, whereas he was markedly better after such a storm accompanied by heavy fall of rain. But whether this be really so or not, the facts already stated lead me to conclude that vegetable effluvia are not the causes of disorder in many instances; and a recognition of this point has a most important bearing on rational treatment.

If the complaint which has been under consideration really arises from causes so general in their operation as solar heat and light; and if but a very limited proportion of the population suffer from it; and if the complaint, when once generated, is both severe and difficult to check, we are forced to conclude that some special predisposition is necessary on the part of those who suffer.

Hereditary predisposition is by some considered a cause of the disorder, and cases are published in which the children of parents who suffered became similarly affected when they grew up. *Per contra*, I know a gentleman who has suffered severely for many years; but none of his children, some of whom are now grown up, have ever shown any signs of the disorder.

My own experience agrees with that of those who consider the upper classes more prone to suffer than the lower. Whether it be owing to the latter class so often neglecting to seek relief till actually laid low, I cannot say; but the cases I have seen have occurred amongst people, if not in affluent, at least in easy circumstances. During the two last summers I frequently asked persons engaged in hay-making if they often suffered from hay fever or asthma, but never gathered any information indicative of any familiarity with the complaint. Perhaps the robust labourer, enjoying a well-toned nervous system and a freely acting skin, is little subject to an attack.

What the inherent proclivity to the disorder consists in I cannot pretend to say with confidence; but I have noticed certain peculiarities of the nervous and vascular systems of those whom I have seen suffering from this form of illness. I have remarked a weak and phlegmatic habit; an enfeebled, and, consequently, an unnaturally excitable and mobile condition of the entire nervous tissue, both in the centres and in the peripheral extensions; an enfeebled cardiac action, and a consequent languor of circulation and tendency to internal congestions; a relaxed tone of the general system; and a natural preference for cold to warm weather.

The enfeebled and lowered tone of the nervous systems in these persons renders them far more liable than others to suffer from the avowedly debilitating and depressing effects of heat on the nervous tissue. The phenomena of the disease seem to me to depend on depressed function, and want of tone both of the cerebro-spinal and of the sympathetic nervous systems. The dyspnœa may arise from a further depression of the already feeble cardiac action, and from the vagus participating to a certain extent in the derangement of innervation. The nervous depression is also evidenced by the cutaneous and ocular hyperæsthesia which characterise the complaint. Heat and light—natural, healthy stimulants, and which, even though suddenly supervening and existing to an unusual degree, would have remained innocuous in a better tone of system—now become sources of irritation and depression; and hence, through sympathy of the various branches of the ophthalmic nerve, may arise the ophthalmic and nasal phenomena characterising the complaint. Perhaps many of the most prominent features of this singular form of distress are explicable by the laws of inhibitory nervous influence as lately advanced by Pflüger, Lister, C. H. Jones, and others. Here I would ask, May not defective evaporation by the skin in some cases materially assist in the causation of the complaint? If now we admit two forms of illness, both occurring at the same season of the year, and therefore too often ascribed to a like cause—the one, however, closely allied to spasmodic asthma, the cause of which may be localised and easily avoided, but the other of a febrile nature, and attributable to influences which cannot be so easily evaded—we need not wonder that in some cases success has speedily followed the adoption of remedial measures, and that in others little or no impression has been made on the complaint.

The treatment of the really spasmodic form of illness must be that of ordinary asthma—by sedatives and antispasmodics taken into the stomach and also inhaled in the form of medicated vapour—which does in many instances give much relief to the naso-pulmonary irritation. The grand preventives of this form of attack, and also the best precautions to adopt during the season of its prevalence, are to withdraw to the seaside, away from the aroma of ripe grass, hay, or strongly perfumed flowers, and to persist for a time in the use of a suitable tonic.

If we are correct in our supposition as to the agents which induce that variety of illness to which we have applied the term "summer fever," we need not look for any specific remedy, nor need we hope for a speedy amelioration of the symptoms from a mere change of place. In those cases in which quinine has been stated to have effected a speedy cure, there has probably been a lurking aguish taint; but in cases where that does not exist, it will too often be found to fail most egregiously. It has been stated, however, that the susceptibility to this complaint constitutes an "unalterable diathetic tendency;" but facts within my knowledge contradict this statement. The great want of success in treatment may, I believe, be accounted for, in many instances, by remedial measures being instituted only at the appearance of an attack, and by their being abandoned as soon as the paroxysm has begun to decline.

If we grant an unaltered predisposition, we are prepared to expect a recurring illness with a periodically returning intensified exciting cause. Hence the treatment proper in such cases is twofold—that to be instituted during an attack, and that most likely to prevent its recurrence.

I have never known of any attack being cut short either by the exhibition of a particular drug, or by removal from the sphere of its contraction; but I have known in several instances of a decided amelioration of all the symptoms by confinement to the house in a cool and darkened room, by avoidance of the midday sun, and by taking exercise either in the cool of the evening or in the very early morning—precautionary measures which the patient himself often instinctively adopts. Additional comfort can also be afforded by the exhibition of tonic aperients, of which class taraxacum and dilute nitro-muriatic acid have answered very well in some cases under my care. The various excretory and secretory functions must be carefully attended to. Considerable amelioration of the local symptoms may often be obtained by touching the eyelids with glycerine or any unctuous substance, and by inhaling the steam of hot water either simple or medicated with creosote, camphor and opium, and probably many other substances of a similar nature.

The grand secret of success, however, in this complaint consists, according to my experience, in preventive measures carried out into a regular habit of life during the intervals of freedom from an attack. The great indication of treatment appears to me to be to raise the tone of the entire nervous system and to remove the unnatural susceptibility to outward impressions which characterises the sufferers.

For these ends we must give tone to the entire nervous system, both in its various centres and also in its peripheral extensions. The skin must be invigorated, and a free circulation maintained in it. The mucous membranes must be braced up so as to diminish their unnatural susceptibility to atmospheric changes, and the vigour of the cardiac contractions must be increased.

The measures to be adopted for these ends are simple and easy of enumeration, and are, from some cases which I have watched, potent for good, if systematically carried out, and made a regular habit of life.

The sympathy between the skin and mucous membranes, and the central organ of the circulation, the liver, and the various chylopoietic viscera, must be carefully remembered, and due attention be paid to a healthy performance of their functions. For invigorating the skin, and also for assisting the various functions, regularly timed and properly graduated foot exercise is a most important item in treatment. A thorough distribution of blood to the extremities and to the surface of the body generally, without inducing fatigue, should be secured.

Another important means for fulfilling all the indications, but especially for toning the nervous system and mucous membranes, is the graduated application of cold to the surface of the body, followed by judicious friction.

Tepid sponging, cold sponging, the tepid general bath, and the tepid shower-bath, may be successively employed, till the system can benefit from the shock of the cold shower-bath, which must be regulated according to the effects it produces.

Benefit will also result from sea bathing at the proper season, but in every instance the use of the bath should be followed by brisk friction over the whole body.

The force of the cardiac contractions may be upheld and strengthened, and the tone of the nervous system improved, by the avoidance of all depressing influences, more particularly undue mental fatigue; by a nourishing diet, proportioned to the waste of the system, and by the prolonged exhibition of some nervine tonics, more particularly the various preparations of iron, combined, from time to time, with suitable proportions of nux vomica, or of its active principle, strychnine. These remedies must be abandoned for a time, after the manifestation of their usual physiological effects; but I believe it is of the greatest use to commence them again some time before the usual period of attack. Such are the simple measures, by a prolonged and systematic adoption of which I have seen ultimate and permanent relief from this distressing complaint; and perhaps many might be freed from this annually recurring suffering and inconvenience, were they more alive to the real share solar heat has in the causation of their complaint, and therefore more impressed with the necessity of altering that peculiarity of system which renders them so liable to injury from it, not by merely instituting treatment at the commencement of an attack, but by systematically pursuing it during the interval of health.

43, Westbourne-park, W.

REPORT OF A CASE OF ANEURISM OF THE LEFT VENTRICLE—RUPTURE—DEATH.

By W. SPENCER WATSON, F.R.C.S.,
Assistant-Surgeon to the Central London Ophthalmic Hospital, and (late) Assistant-Surgeon to King's College Hospital.

Mrs. C., the patient, was a widow with one child, in easy circumstances, aged 56 years, a stout woman, and inactive in her habits, and subject to attacks of bronchitis in the winter months. Her pulse varied from 84 to 100, and was never observed to be intermittent. She never had palpitations nor faintness. About fourteen days before Christmas, 1863, she began to complain of severe pain in the præcordial region, which came on suddenly after exposure to cold. Dr. John Watson, under whose care she was, examined her lungs, and found them congested, but did not detect any symptoms of heart disease. The treatment adopted relieved the symptoms. Subsequently she had an attack of what appeared to be broncho-pneumonia, with occasional spasmodic pain across the chest.

During this attack she was seen by Dr. Hyde Salter in consultation with Dr. John Watson; and, on a careful examination, no heart disease was discovered. This was on March 3, 1864.

On March 24, having been apparently better for some days, so far as the lung affection was concerned, but still suffering occasionally from the severe spasmodic pain, she died suddenly in the early morning.

March 25, 9 a.m.—A post-mortem examination was made. The whole body was covered with a thick layer of fat, and the subcutaneous fat of the abdominal walls was from two inches to two inches and a half in thickness. The omentum was also loaded with fat. The muscles of the abdominal walls were of firm consistence, but perhaps somewhat paler than usual.

On cutting through the cartilages of the left side a gush of clear serum escaped from the pericardium, which must therefore have been distended. After removing the sternum and laying open the pericardium, a dark venous clot was seen enveloping the greater part of the heart, leaving, however, the apex uncovered. The lungs were emphysematous at their anterior edges, and overlapped the pericardium. The heart, when removed, was found to be covered by a layer of yellow fat, through which the muscular structure showed only in two or three limited spaces. It was larger than normal, and especially in the longitudinal direction, the apex of the left ventricle being distended into the form of a hemisphere, covered by the visceral pericardium, on the posterior aspect of which a transverse rent was seen. The rupture of the aneurism had taken place at about the apex of the tumour, in a part not precisely corresponding with the rent in the pericardium, which had been dissected by the effused blood from the surface of the aneurism itself. Microscopic examination of the muscular tissue gave no evidence of fatty degeneration, and the healthy colour it presented and its firm consistence confirm the opinion that no interstitial fatty disease had been present. Lying, however, amongst the fibres immediately beneath the endocardium were patches of a pale yellow colour, evidently fatty tissue.

Fig. 1 represents the posterior aspect of the heart, covered in the greater part of its extent by fat, and the aneurism at its apex with the transverse rent in the visceral layer of the pericardium.

FIG. 1

Fig. 2 is intended to show the appearance of the interior of the apex of the left ventricle, with the laminated fibrine lining the aneurism, and the gradual thinning of the muscular walls until they become quite membranous at the commencement of the aneurismal pouch. The ragged edge of the rent in the fibrinous cup lining the pouch is represented in this figure.

FIG. 2

ON CHOLERA AS CARRIED BY SHIPS, WITH REFERENCE TO SOME MODERN THEORIES.

By JOHN MACPHERSON, M.D.,
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A question put to me by Professor v. Pettenkofer, at the Conference held last Christmas at Leipzig, has made me look over some of the numerous histories recorded of cholera on board ship, and select a few of them as illustrating some interesting points respecting the propagation and period of incubation of the disease—matters on which there is a good deal of difference of opinion. V. Pettenkofer does not consider that the cholera poison can be regenerated in ships, owing to the absence of a suitable condition of soil. He thinks that those of the crew or passengers of a ship who have brought the infection of the disease with them on board, suffer from cholera, but no others, and that a dose of poison which might have proved innocuous to them on shore, may, under the bad hygienic conditions of on-board-ship life, develope itself into an attack of cholera in persons previously infected—that the disease cannot be regenerated without a return to land, and without the influence of certain conditions of soil and of subsoil water.(a)

(a) I believe that I am representing Pettenkofer's views fairly.

I think that the following facts, even as stated in a very concise form, and although the whole subject has still to be more fully investigated, will show that this hypothesis, the popular one at present in Germany, and also that the water-contamination theory, now a favourite one in England, take too limited a view of the subject.

We may first inquire which of the causes usually considered to favour the development of cholera are present, and which are absent, in ships. There are brought on board, men or clothing or articles from infected places (men, as I believe, at times of embarking and disembarking, owing to various causes interfering with the regularity of their habits, to a certain degree individually predisposed).

There are always on board human intercourse, and contact, often crowding, cholera or diarrhœa dejections between decks, frequently a most horrible stench from this cause, also bilge-water. The influence of season, temperature, weather, and of what is called epidemic constitution, must be present at sea as on land.

What causes are absent? Peculiar states of soil, or of rising or of falling of the subsoil water; contamination of drinking water, after it has been put on board, and I think few can believe in its special contamination beforehand, although it may, like all the Thames water (in former days at least) put on board ship, contain organic impurities; and besides it is known that there were violent epidemics in ships in the Baltic fleet in which only distilled water was used. Drains, cesspools, the fermentation of dejections in closed places, are all absent.

The following facts, and the conclusions drawn from them, will, I trust, be in accordance with the experience of those who have had much to do with cholera on board ship, for I have conversed on the subject with an immense number of ship Surgeons and Medical officers who have had charge of troops at sea.

(1.) There are cases on record of men last from Europe having been attacked on board ship in the river Hooghly, in Madras roads, and in Bombay harbour, before they had been on shore, but I have not heard of any undoubted case of men on board ship getting cholera where there has been no communication with the shore. A well-authenticated case of this would be very important. Two good instances of sudden attacks on landing in a place where cholera was prevailing, but where no particular source of the disease was suspected, are the following:—Surgeon Thom (b) declares that in July, 1846, a portion of H.M.'s 86th got cholera the night of the day when they landed at Bombay. They had come from Kurachee, where there was no cholera. The disease only manifested itself among a portion of the men, who got wet in landing. Again, H.M.'s 41st arrived in high health from England, anchored in Madras roads, and next day disembarked. Many men were seized with cholera in landing, or after they had reached the shore.(c)

(2.) In the case of ships leaving infected ports it is not uncommon to have a few cases show themselves on board the day of leaving, and for two or three days after; but usually the disease disappears soon after getting to sea. This is the ordinary course of things in Calcutta. Another not uncommon occurrence was thus laid down by Mr. Scott in 1824(d):—"A ship, for instance, leaving an Indian port has sailed as far as the equator without having a case of the disease. It then suddenly appeared with great violence and mortality, and all the susceptible men having suffered, as it would seem, in a few days the disease has immediately and finally ceased." It may happen that there is a solitary case soon after going to sea, followed by no others, even in a crowded ship. This has happened in my own experience.

The date of the outbreak has often been a fortnight, or longer, after leaving the port. One of the most recent cases is that of the *Renown*, a first-class steamer, in which all the arrangements appear to have been excellent. It left Gibraltar, having the day of sailing landed a case of cholera, and went to sea. All went well at first, but at the end of thirteen days there was a bad outbreak, which lasted fourteen days and then died out.(e)

On November 9, 1848, an emigrant ship sailed from Havre all healthy. On the 25th, or sixteen days after leaving, cholera broke out. The ship reached New York December 2. The passengers were landed, and the disease spread, but not beyond the quarantine enclosure.(f) Another ship left Havre November 2 or 3 healthy. When twenty-six days at sea, cholera broke out. The ship reached New Orleans on December 11, and the disease spread rapidly.(g) In a late number of the *Medical Times*, Surgeon Gibbon's case was mentioned, where a second case of cholera occurred fully six weeks after a first one, and two months after leaving Bombay, without communication having been held with any ship or place, and while lying off the Cape, where there never has been cholera.

(3.) The following are examples of cholera seizures following the boarding of infected ships:—The frigate *Melpomene*, with cholera on board, arrived at Toulon, was placed in quarantine, and received four *garles de santé* on board. The sick cases were immediately landed, and one of the *gardes de santé* died the evening of their landing.(h)

A brig, with cholera on board, put into Folly Island, Charleston. Four sailors were sent on board, and the whole four were soon after attacked;(i) but cases of this kind could be easily multiplied.

(4.) In the history of the transmission of cholera, where the medium is doubtful, the following case, now a well-known one, is very remarkable:—

The steamship *England*, with cholera on board, was, when five miles at sea and fifteen from Halifax, hailed by a pilot boat having three men on board—Terence, Purcell, and son. Owing to the sickness in the steamer, they did not board her, but were taken in tow for twelve miles. Next morning, or on the 10th, Purcell went to his home, eleven miles south of Halifax. On the 11th he got diarrhœa, which became choleraic, and spread to his family, but caused no deaths. Terence left the anchorage of the *England* on the 9th. On the night of the 10th he was seized with cramps. He eventually died, and communicated the disease to his family. There was no cholera in Halifax before the arrival of the *England*, and it hardly spread beyond the families of the pilots.(k)

The case of Guadaloupe is at least as singular.(l) The importation of cholera into it is attributed to the sailing ship *Virginie*, which left Marseilles, where there was cholera, September 3, 1865, and arrived at Point de Pitre October 9—all well, no sickness on board. On October 22 cholera broke out, three days after the operation of unloading commenced, and quite close to the place where it took place. The health had been perfect on board, and the crew was not large. The *Virginie* was thirty-six days from Marseilles to Point de Pitre, and it was forty-nine days after she left Marseilles that cholera broke out.

(5.) The case of cholera appearing to attach itself to thatched boats in the Ganges is perhaps worthy of mention, but in these cases the boats come to every evening, and in no instance is it possible, as some have imagined, to avoid communication with certainty with infected spots, when such exist on the banks of the river.

Dr. Sutherland (m) tells us that cholera accompanied his fleet downwards from Cawnpore to Benares, from August 27 to September 15. On the 15th the native troops were disembarked, and the cholera immediately left them, while it lingered for some days longer among their women and children, who could not be persuaded to give up their boats.

When I sailed up the river with a similar fleet of European troops, cholera attached itself to us for full three weeks, and there was one case fourteen days before, and another fourteen days after, the period of the great outbreak of the disease.

Dr. Mackinnon (n) relates a very remarkable story. A regiment suffered severely on the voyage down country. It was disembarked, and another regiment was put into the boats which they had left for the conveyance of the new corps upwards. The cholera forsook the newly landed regiment, and transferred itself to the one which went into the boats.

In nearly all these cases the facts are perfectly well ascertained, as certain as any other facts in Medicine. They must therefore be accepted, whether foregone conclusions stand in the way or not.

I hope that the following inferences from the preceding and from many similar facts will not appear forced ones.

They show that on landing cholera may break out in eight or ten hours from the earliest possible exposure to its sources,

(b) *Medical Times*, vol. vi.
(c) Scott, "Madras Report."
(d) "Madras Report on Cholera."
(e) *Army Reports*, vol. vi.
(f) *Medical Gazette*, vol. ix. p. 49.
(g) Wood's "Practice of Medicine" vol. i.
(h) Bondin, *Traité de Geographie, etc.*, vol. ii.
(i) *Medical Gazette*, vol. xl. p. 434.
(k) *Army Reports*, vol. vi.
(l) *Union Medicale*, December 12, 1865.
(m) *Indian Annals*, 1857
(n) "On Public Health, etc., in India."

whether they be known or not. That cholera most usually shows itself on board ship at the time of sailing, that it usually disappears soon on going out to sea.

That the cholera poison may exceptionally remain present in a ship without manifesting itself for one month, possibly for two; the way in which it seems to attach itself to the covered boats in the Ganges is very similar.

When a ship starts from an infected port without any cases of cholera, the likeliest time for an outbreak is from eight to fourteen days after sailing.

That the virulence of a cholera outbreak on board ship (when fresh subjects are not submitted to its influence) is over in eight to twelve days, though occasional cases may occur both before and after.

That cholera has always died out in long voyages; the poison cannot be conveyed by men, or clothing, or cargo beyond a certain time for instance, that occupied from India to England in the voyage by the Cape, though it is easily transmitted shorter distances, as from Europe to America, or from Bombay to the Persian Gulf.

They show that the disease may, on arrival near the shore, be readily transmitted to people who come on board an infected ship; that a long period, usually calculated at eight or ten days, for the regeneration of the disease in them is not necessary.

I have not read of any instance of the disease being communicated to other ships on the high seas, but transferences of crews or passengers, etc., from a ship with cholera on board to another one must be extremely rare.(o)

In some instances on board ship, the disease, after showing itself, spread—in other cases it did not extend. The same happened when the shore was reached: in some cases a violent outbreak was the result—in others it did not extend beyond the homes of those who had acquired the disease on board ship.

The cases of the Halifax pilots and of Guadaloupe remain very obscure. The pilots, who never went on board the cholera ship, and only received some papers from her, must have got the disease from a choleraic atmosphere, of whatever nature, hanging about the ship, or from fœcal emanations from foul privy boxes outside the ship, to which they were only exposed in the open air and while in motion?

If no other cause for the cholera in Guadaloupe is discovered, we must suppose that the poison of it attached itself to the persons of the crew of the *Virginia*, they being healthy, and none of them suffering from diarrhœa, or that it was present in the cargo, and did not manifest itself until the unloading commenced?

I have known of many cases in which cholera appeared to confine itself to a particular part of the ship, where one portion of the crew would escape, and another suffer; but in other cases the disease has shown itself in all parts of the vessel. But, on the whole, there is no question that the crews suffer more than the officers, and crowded and ill-ventilated more than other ships.

It would be unpardonable to omit here the general conclusions arrived at by the Constantinople Conference on this subject, after they had examined an immense mass of evidence. It was thus formulated by them:—

"21. Intensity of epidemics on board ship is in general proportionate to crowding, and to the men not having come from a cholera centre (*foyer cholérique*) in which they have stayed some time (*séjourné*). In crowded ships the course of epidemics is usually rapid, but the dangers of importation are not at all in proportion to the intensity of the epidemic or of the choleraic accidents manifested on the passage."

This conclusion appears to be a just one. The only doubtful question it raises is, whether persons who have resided in a choleraic focus—say a town in which the disease is prevailing—are really less likely to suffer on board ship than others.

Without at present offering a theoretical explanation of these facts, it may be remarked that contagion offers the readiest solution, with the help of a sliding scale, to account for the spreading or non-spreading of the disease—a scale consisting of epidemic constitution, period of epidemic, susceptibility, increased or diminished individual disposition, fitness or unfitness of the surrounding conditions for nourishing the cholera germ.

I would at present only point out that the first series of the cases enumerated above excludes the possibility of the operation of particular states of subsoil water, or of water contaminated with choleraic dejections. They show that, at all events, *a cholera outbreak may run its natural course, and the disease be propagated without their aid.* This must, I think, be considered an ascertained fact.

I may endeavour on another occasion to show in detail that the ground water and contaminated water theories run the risk of being pushed much too far; while the element of season, which appears to have played nearly as important a part in England as in India, and the more general sanitary conditions, such as crowding, disregard of ventilation and of cleanliness, have been of late too much neglected in the explanation of outbreaks. The chief value of Pettenkofer's theory appears to me to consist in his drawing attention more specially to what, indeed, had been often observed before—to the fact that a soil that is full of organic matter, and which is, from porousness, dampness, and moisture, in a state favourable for spreading the products of decomposition, is a powerful agent in spreading the disease, when once introduced; but when he comes to positive rules about the coincidence of cholera with sinking of the *grundwasser*, he is less satisfactory. Pettenkofer has referred with justice to the admiration I expressed of his maps of the diffusion of cholera in Bavaria, which doubtless are most perfect works of the kind. But cholera maps have been constructed for the most various purposes—some to show the effect of the geological formation or of elevation; others of the course of rivers, or canals, or old water-courses, or drains; of human intercourse, of crowding of population, of drinking water; and even to show its capriciousness, and that it follows no laws—not to mention lines projected to show the influence of season of the year. All such works have doubtless their foundation in the facts which they are constructed to represent, but in the present state of our knowledge the more prudent course is not to adopt any one of these facts too exclusively for our guide, or to magnify the importance of any one particular secondary agency.

35, Curzon-street, W.

(o) In the case of the *Britannia*, in the Black Sea, as far as I have read, she returned from a cruise with cholera still on board, and put her men into transports lying empty in a roadstead. The disease did not spread to the crews of the transports, and died out. This is in close analogy with what usually happens when men are sent from crowded barracks to tents or to empty houses. Much may depend on whether the outbreak is already on the decline. Thus last year a great influx of people occurred in Leipzig, where cholera was present, at the time of the fair, but there was no increase of cholera. The usual explanation of such a circumstance is, that the epidemic was then waning.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

NORFOLK AND NORWICH HOSPITAL.

CLINICAL REMARKS ON NEURALGIC PAIN OF THE SIDE.

(By PETER EADE, M.D. Lond., M.R.C.P., Physician to the Hospital.)

Pain of the Side, of a more or less neuralgic character, and unconnected with actual disease of the painful part, is a very common symptom of disordered health. Indeed, so common is it, and so often is it met with where it is the chief or almost the only ailment positively complained of, that it might often almost be looked upon as a substantive disease. The causes from which lateral pain may arise are indeed very numerous and very various, as a reference to this table (appended) will show; but their very variety and number make it, of course, impossible to dwell long upon any of them, and, indeed, scarcely to notice the majority of the others.

Table of possible Causes of Pain of one or both Sides.

Anæmia
Spanæmia
Hysteria
General debility
} from any cause.

Neuralgia.

Gout
Rheumatism
} of diaphragm.
} of intercostals.

Muscular exhaustion.
Dental caries.
Disease of spine.
,, ,, spinal cord or its membranes.
Irritation of thoracic sympathetic nerves.
Phthisis.
Pleurisy.

Pleurodynia.
Disease of heart.
Neuralgia of heart.
,, ,, diaphragm.
Gastrodynia.
Dyspepsia.
Herpes zoster.
Pellagra.
Hepatic irritation or disease.
,, calculus.
Strumous disease of abdomen.
Renal disease.
,, calculus.
Supra-renal disease.
Constipation.
Tumour of abdomen.
,, ,, abdominal parietes.
Aneurism of cœliac axis.
Ovarian disease or disorder.
Uterine disease or disorder.

I propose now chiefly to speak of the pain of the side of a more or less neuralgic or hysterical character, which is so common in the female sex, of which we have almost always some examples in the Hospital wards, and which meets us so continually in the daily exercise of our Profession that its very commonness constitutes a strong claim to its careful consideration; at the same time that the suffering it causes, and its liability to be mistaken for more serious disorders accompanied with pain in this region, at once remove it from the list of unimportant or trivial affections.

It is an affection which, as I have said, is extremely common, and is one of the most constant features of that form of disordered health into which young women fall who from any cause are deprived of the proper amount of fresh air, of sunlight, or of exercise; and therefore amongst the working population it is continually seen in the female operatives in factories, boot and shoe-making rooms, and milliners' establishments. These invalids constitute a class that applies largely for relief to the public Hospitals and Dispensaries of our large towns, and to this rule the experience afforded by the Medical institutions of Norwich is no exception. It is, doubtless, also common enough in other localities where the female population is unfavourably circumstanced in the matter of hygiene or employment, but in country districts, though it occurs often enough in the suitable conditions of health, yet as the poorer population is there far more robust than in towns, and as the rural female occupations are more largely followed out of doors, it follows that the form of depraved health in which it is chiefly met with is far less common there than in towns, and therefore the symptom itself is not so continually thrust into Medical notice in those districts.

Amongst the invalids of the better classes, too, it is a common symptom wherever the habits are too sedentary, and consequently the abdominal functions sluggishly or imperfectly performed; or, again, wherever the occupations are too sensational, or the mind proportionately too much employed; or where the hours of rest are too late, the parties of pleasure too frequent, the rooms in which these are held too crowded, and consequently the air breathed impure—in short, wherever those causes are in operation, which gradually impair tone and reduce constitutional strength, there the conditions are present which interfere with perfect nutrition, induce derangements of the functions of organs, and so, by weakening the nervous system, render it also liable to functional disorder, and tend to produce the derangement of the nerves of sensation of which this pain of the side is a result. But although this pain of the side is extremely common in the female sex, wherever the constitutional health becomes lowered in tone, yet it is far from being frequently met with in the male sex when placed under similar conditions of life or occupation. It is not the fact that it is never met with in men, for every now and then patients of the masculine gender present themselves who, amongst other symptoms, complain of a pain referred to the side (and in them also it is generally the left side which is so affected), which can in no way be distinguished from that which is so common in women; but it is noticeable that these men are nearly all of a nervous excitable temperament, in whom the emotional system is largely developed, or in whom there is a tendency to a development of the more purely nervous class of disorders, or in whom again an excitement of the sexual system—normal or abnormal—has given rise to a state of nervous erethism not to be distinguished from hysteria as seen in the female.

Nervous pain of the side of the character I am speaking of, and such as is met with occurring in the lower costal regions, may be described as of two kinds, which, although allied in character, inasmuch as they are both of the class of neuralgic or hyperæsthesial pain, yet are quite distinguishable from each other.

The first and less common of the two is the truly neuralgic or spasmodic-neuralgic pain, distinguishable by its being of a much more acute character and by its often occurring in paroxysms or spasmodic exacerbations, with intervals more or less complete of freedom from suffering This form of pain is either of the true neuralgic character, and is identical with that met with in the face, the temple, or other parts, and due to similar causes, or it is induced by some sudden, or strong, or prolonged emotional excitement producing an acute form of simple hysteria. It is rarely or never accompanied by the dull frontal aching, the general lassitude, and the evident loss of general health, which so constantly are present along with the other affection, or at all events it occurs in a far higher state of health than the latter, so that, indeed, we might almost imagine this to be the acute and the other the more chronic form in which the nervous disorder shows itself.

The other and less acute form of pain in the side is the one of which I wish chiefly to speak. Here the pain is rarely very sharp, very shooting (although it may be at times slightly so), or very severe, but it is usually nearly constant, felt for days, or weeks, or months almost without intermission, and so points to the presence of a cause far more constant in its action and far more persistently present than that which produces the spasmodic pain.

These, then, are two distinct forms in which such nervous pain of the side is met with, and indeed there are broadly marked differences between the two varieties; but nevertheless it must be confessed that such lateral pain is complained of by patients in almost every intermediate degree between the acute spasmodic or hysterical pain, and the dull continued aching symptomatic of chronic disease, just in proportion as we find physical disorder in various amount combined, as it so constantly is, with emotional disorder or the hysterical diathesis.

The latter form of pain is most commonly fixed in the left side, but it is not unfrequently felt also (or only) in the right; or it may shift, being sometimes felt in one side, and sometimes in the other; or, again, it may be complained of in both sides at once. The rule, however, is that the left side is the part in which it preferentially locates itself. Several cases have come under my observation in which it commenced in the right side, after a time moved over to the left, and there remained, leaving the right side thenceforward free from pain.

On careful examination of a number of cases, it will be found that its most common position is just below the breast and over the site of the seventh to the tenth ribs. Sometimes it is fixed in a small spot immediately beneath the gland; more commonly it is diffused over a larger space, and cannot be localised to a single spot or nerve, but even then one spot is usually more tender than the rest. Often the pain runs backwards and upwards in an oblique direction in the course of the ribs or intercostal nerves, and then is usually accompanied by pain in the dorsal region of the back, either, as is most common, between the scapulæ at about the level of the scapular spines, or in some part of the skin over and on either side of the first to the tenth dorsal vertebræ, but seldom lower in the back than this. Frequently the dorsal spine itself is painful and decidedly tender on percussion, and where not absolutely tender, a disagreeable feeling of abnormal sensitiveness is often produced by such percussion. The morbid sensitiveness is also occasionally much aggravated by the application of a hot or very cold sponge to the part, and is generally somewhat increased by any sharp movement or rotation of the spinal column.

There is often a slight but perceptible swelling or turgescence of the soft tissues in the painful sub-mammary region. The amount of this varies greatly; sometimes it is very slight indeed, but sometimes it is very marked and quite evident to the touch, giving to the finger somewhat the sensation or idea of a sponge partially swollen up from the imbibition of fluid. This swelling, when present, is not œdematous—that is, it does not pit upon pressure, and though sometimes described by the patient as a distinct tumour, I have never known it sufficiently marked to justify such an appellation, even in the exaggerated ideas of an hysterical invalid. The skin is usually hypersensitive, sometimes slightly, more often somewhat acutely so, and sometimes giving rise to decided hysterical

symptoms when at all roughly handled. The tenderness, as well as the swelling, seem to be the more marked, like the other symptoms present with them, the nearer is the approach of the case to pure hysteria, as distinguished from other cases which show the continued constitutional irritation or exhaustion only; or rather, perhaps, the more hysterical the patient, the more acute and exaggerated is the expression of real suffering.

Along the course of the affected intercostal nerve or nerves the skin also is occasionally tender, less constantly so than over the lower ribs, and then generally less acutely; and the same may be said of that covering the painful parts of the back, in which locality the tenderness usually extends for some distance on either side of the vertebral column.

In a large proportion of cases the hypersensitiveness of the back as well as of the side partakes more or less of what is known as the hysterical character—that is, the superficial twigs of nerve are more affected than the deeper; hence the suffering is more severe when the skin is merely pinched than when steady or deep pressure is made upon the part, and there is a marked and apparently unnecessary or disproportionate fear of the suffering to be produced by the manipulation necessary for investigation; but although less expression of suffering is usually manifested when the attention is diverted from the investigation which is being conducted, it will rarely be found that any amount of diversion will prevent the expression of what appears to be real pain and inconvenience from manipulation of or pressure on the tender parts. The contrary is doubtless the case when purely hysterical pain and tenderness are being inquired into, but the pain of which we are now speaking is not of this simple character, although often enough modified in this direction by the feminine temperament, and the tenderness which is felt and the painful sensations produced, being signs of a real and substantive disorder, are consequently themselves real and genuine, and are pretty constant in degree and character in the same case.

Judging from situation, it would appear that the exact localisation of the aching twigs of nerve would be the anterior branches of the lateral cutaneous nerves of the intercostals when the pain is submammary, the posterior branches of these when the pain is felt in the scapular regions, and the cutaneous twigs of the posterior branches of the dorsal nerves when the integument over the spine is affected.

Not only is this pain distinguishable from other pains referred to the sides by the special characters which have just been mentioned, but it may generally be discriminated from others which more or less resemble it by the nature of the accompanying symptoms. Thus, there will generally be found to be present more or fewer signs of constitutional dyscrasia—pallor, pearly conjunctivæ, an anæmic complexion, or a peculiar sallowness; and on inquiry there will nearly always be found to be complaint of a peculiar feeling of painful weight or pressure in the forehead, not referred, as in true neuralgia, to one or other orbital or temporal region, but commonly described as a general sensation of weight or heaviness across the whole forehead and over both eyes alike. Frequently, also, there will be found to be gastrodynia, not always either increased by the ingestion of food or even apparently influenced by it; pain in one or both ovarian regions; and lumbar pains. The uterine functions, too, will nearly always be found to be disturbed or imperfectly performed. Either there will be amenorrhœa, or scanty or irregular menstruation, or menorrhagia, or leucorrhœa; or in another class of cases there will be prolapsus uteri, or climacteric menstrual irregularity; or there will be reason to suspect some kind of sexual vice or aberration.

If, again, the anæmic symptoms predominate, there will then be the dyspnœa, the palpitation on exertion, the arterial and venous murmurs, which are the usual accompaniments of this condition. The pain in the back and shoulders somewhat resembles that which is considered indicative of hepatic congestion or disorder, and by patients themselves is not unfrequently regarded as indicative of their suffering from a "liver complaint," but it is readily discriminated from such causes—less, however, by its position than by the absence of true bilious symptoms and the co-existence of other and distinctive signs.

The pain of the side approaches, perhaps, more nearly in character to that experienced in the sides and upper parts of the abdomen in the early stages of tubercular disease of the lungs than to any other, which is not surprising, as doubtless the same class of nerves is affected in both instances, although the primary source of irritation is to be found in different organs in the two classes, and in the one may even at times be of a purely mechanical character. In the phthisical patient the pain is generally referred to a lower point in the side—generally, indeed, to some part of the side of the abdomen—than in the class of cases now under notice.

The absolute diagnosis here, as elsewhere, is to be drawn from the absence of the short cough and expectoration of early phthisis, of the physical and other signs indicative of this condition, and on the other hand from the presence of the uterine and other symptoms. In truth, however, it is not always easy to speak positively as to the exact nature of lateral pain, when with uterine irregularity there is cough and a tubercular tendency; for it is only too frequently the case that the constitutional debility which is the cause of an imperfect menstrual *nisus* is but the first sign of that cachexia which results in the development of tubercular disease of the lungs, and of which (as Dr. Henry Bennett has so demonstratively shown) uterine irritation would even appear to be a directly inducing cause.

Indeed, even setting aside the direct testimony of Dr. Bennett to the connexion of uterine disease and phthisis as cause and effect, cases not unfrequently come under observation in which we have, in young, irregular, or amenorrhœal patients, states of congestion of the lung in every degree, from the slightest engorgement to positive and absolute congestive condensation, with or without actual hæmoptysis, with more or less alteration of the percussion note and of the ordinary respiratory sounds, from slight roughening or jerking of the inspiratory murmur to its complete abolition, all of which may disappear, and the patient be restored to perfect health, but which, on the other hand, not unfrequently are but the first stage of what gradually merges into ordinary phthisis. Such combined conditions of lungs and of general health are not uncommonly met with in practice, and although from the physical signs alone it is often impossible to say whether there is congestion only, congestion plus a deposit of tubercle, or tubercular deposit only, yet a complete recovery from such a condition is sufficiently frequent to justify us often in hoping that the restoration of the general and uterine health will be followed by a complete removal of the lung disorder, and in giving a most hopeful prognosis of the nature and issue of the case.

In true neuralgia of the heart a pain is felt not unlike to this lateral neuralgia, but in these cases the pain is pretty constant and equal, is always felt in the same spot in the precordial region, and never shifts its position. The weak and overworked heart will here be found to have a weak and irritable impulse, and its muscular sounds to be weak and clear. The pain is relieved by rest, with iron and other tonics, and there is usually an absence of other bodily disorders.

From the pain of the side met with in cases of pleurisy, of intercostal rheumatism, or where a gouty condition of blood exists, it can be distinguished by a careful consideration of the conditions of health and other circumstances under which it occurs.

From true pleurodynia, which is either a real neuralgia or an hysterical symptom, but which the pain frequently much resembles, it is often more difficult of distinction; but the former is a more acute affection, and, moreover, occurs in a different state of systemic health.

Other forms of pain in the side which might be confounded with it are the true gastralgia produced by indigestion, by acid secretions, or irritating food or other matters in the stomach, and even, as I have seen, the irritative pain produced by the passage of a small renal calculus in an hysterical subject.

The pain which so often precedes or accompanies the coming out of the eruption of herpes zoster, when it occurs in the side, has, in my experience, been more than once mistaken for this simple neuralgic pain. I have seen, too, what appeared to be an analogous pain of the (right) side markedly present in a case of pellagra, with accompanying general debility.

(To be continued.)

We are pleased to observe that H. M. Whitehead and Co., of Sydney, New South Wales, have obtained a bronze medal at the Paris Exhibition for their solid essence of beef.

It is reported from Calcutta that cholera has appeared in the North-west Provinces of the Punjab. Sixty men of the 42nd Highlanders have died at Peshawur. The weather is unusually hot in Calcutta, and many deaths have occurred from heat and apoplexy.

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Medical Times and Gazette.

SATURDAY, JULY 13, 1867.

MEDICAL OFFICERS OF HEALTH.

In the very useful paper by Dr. A. P. Stewart, on Sanitary Reform, which we noticed last week, some instructive particulars are given of the position and remuneration which local authorities in certain places have apparently regarded as sufficient to secure the services of a duly qualified officer of health. Those of our Medical friends who have come within the experience which has taught them the very moderate value set in the municipal mind upon their knowledge and skill, will hardly be surprised to learn that even in London £100, £75, nay, as low as £50 are paid as salaries to health officers; while in a provincial town, containing 35,000 inhabitants, the pittance of *twelve guineas a year* (five shillings a week) is awarded.

The Metropolis, with its 3,000,000 of population, has forty-seven Medical Officers of Health, each of whom, therefore, would, on an average, have charge of about 64,000 persons, supposing the districts were equally divided. Practically, however, nothing can be more diverse than the extent and populousness of the districts. In the outlying parts of Wandsworth and Clapham, Plumstead and Charlton, the districts comprise scattered populations, ranging from 4000 to 24,000, and in these the lowest salaries are given. In Shoreditich, Marylebone, Lambeth, Pancras, and Islington, dense populations of from 130,000 to 200,000 are under the charge of a single health officer, who is supposed to be remunerated by a salary not exceeding in either case £400 a year. The average salary of the whole forty-seven health officers is under £170; but then, on the one hand, there are six who receive from £300 to £600, while on the shady side there are eight who receive actually £50 of annual salary for discharging the duties of the highest sanitary office under the local boards of the several districts, and one other who is paid £73 10s. for overlooking a population of 30,000, spread over some 5000 acres of area. "The grand total expended annually on officers of health in this vast capital, with property assessed at an annual value of above fifteen and a quarter millions, is under £8000"—not so much as 1s. per £100 premium for this most important form of assurance.

In eighteen out of fifty-nine considerable towns in England and Scotland there are permanently appointed officers of health—viz. Aberdare, Bath, Birkenhead, Bristol, Cardiff, Doncaster, Dundee, Edinburgh, Gateshead, Glasgow, Leeds, Leicester, Liverpool, Merthyr Tydfil, Newport (Monmouthshire), Paisley, Southampton, Sunderland. The populations of these towns range from 16,000 to 483,000, and the salaries from twelve guineas to £1000. The permission to practise, which is accorded in all the towns save Birkenhead, Edinburgh, Leeds, Liverpool, and Southampton, is, of course, intended by the local authorities to compensate for their disinclination to pay a fair price for sanitary supervision. But it is difficult to understand how a conscientious regard for the requirements of his office can leave a health officer, who has charge of a population amounting to anything approaching 100,000, at liberty for private practice to an extent sufficient to supplement his official salary of £150 or £200 with the necessary complement for bare living, much less for a fair average professional income. The town of Paisley, with a population of 48,000, pays its health officer £20 a year; on the other hand, Liverpool has shown how highly it appreciates the services of Dr. Trench by increasing his salary from £750 to £1000. Deducting, therefore, six towns where the salaries are £200 and upwards, the remaining towns average a munificient provision of £67 for their health officers. In Southampton, on the lamented death—"borne down by the multiplicity of his duties, and the want of support in carrying them out"—of Mr. Cooper, whose salary had been raised to £200 after thirteen years' service, and who for this sum had combined the duties of health officer and inspector of nuisances, the Town Council resolved to separate the two offices, and they appointed a highly educated and accomplished gentleman as health officer at a salary of £150, while at the same time, "as if in studied mockery of the Medical and other learned professions, the Council appointed as inspector of nuisances, with a salary of £100 a year, a man without any education or any special qualification, and quite independent of the officer of health."

It is satisfactory to observe that in some places the local authorities are fully alive to the value of an able and efficient health officer. In Birkenhead "the authorities delegate to their Medical Officer of Health full power to act according to his judgment." In Liverpool he is "recognised by the civic authorities as their official adviser, whose opinion is asked and listened to with deference in all matters relating to the public health." In Edinburgh he "meets with hearty co-operation on the part of the authorities in all his endeavours to improve the sanitary condition of the city."

In Leicester, Bristol, and Glasgow, the health officers are not required to give up the whole of their time to their sanitary labours. They are very shabbily paid, but they receive full confidence and support in the execution of their duties from the authorities. £100 a year (and that after 17 years' service) among a population of 70,000, £200 a year with 167,000 inhabitants, and £200 a year with a population of 400,000—these represent the emoluments and the amount of responsibility in the three last-named towns. The health officer of Newport (Mon.), with a population of 25,000, is paid "less than any inspector of nuisances, and for the miserable salary of £50 he visits overcrowded houses and lodging-houses, examines unwholesome food and meat, gives Medical attendance to the police, and attends to the ordinary duties very much to the satisfaction of the authorities." The services of the health officer of the city of Bath, with 50,000 population, are valued by the Corporation at £125, while the borough nuisance inspector is paid £100 a year.

These examples bear witness to the necessity, on public grounds, for a reconsideration of the position and pay of Medical Officers of Health. Dr. Stewart recommends that their appointment in towns, ports, and harbours throughout the country should be compulsory, that they should be independent of the local authority, and that their appointment, salary, and dismissal should be subject to the approval of the central department of public health, whose supreme authority Dr. Stewart assumes as the starting-point of his scheme of sanitary reform. There can be no doubt that in some districts the health officer's position depends entirely upon his subservience to the local authority, while in others, as we have seen, he occupies his rightful place, and is practically supreme. It is under the former of these two conditions that the hindrances to sanitary reform arise and multiply themselves, and Dr. Stewart is doing good service by urging the extreme importance of helping those who at present are powerless to help themselves.

THE CHINCHONA ALKALOIDS IN INDIA.

The discovery of the efficacy of the chinchona barks in the treatment of malarious and other diseases of a low type may be looked upon as one of the most important eras in the history of Medicine; yet, although many years have passed away since that time, our knowledge with regard to these barks is still far from perfect. We do not allude to the abstruse subject of the mode in which quinine acts upon the system, furnishing as it does the nearest approach of which we know to an absolute specific, but rather to the simpler questions as to the chemical constitution of these barks, and the therapeutic value of each.

Our readers are familiar with the history of the chinchona plants—how they were wasted by the native collectors of the barks until it seemed that the supply of these indispensable remedies would soon be exhausted—how their habits were studied, and young plants transferred to other parts of the world, especially to India and Java, as well as how their culture has there sped. They also know how much attention has been paid to the chemistry of the barks—investigations which have ended in the production of at least four valuable alkaloids, quinine and quinidine, cinchonine and cinchonidine. These substances are not found in the same relative proportions in all barks; one alkaloid being found more abundantly in one variety, another in another, varying not only with species, but also with climate. It is therefore natural to suppose that the plants transferred to India might yield different quantities of these substances from what the same species had done in South America; and as the relative therapeutic values of these four alkaloids had never been absolutely settled, it came to be a matter of prime importance to investigate this subject in order to ascertain the propriety of expending time and money in the cultivation of plants which might after all prove comparatively useless. In most men's minds there was floating a vague notion that, compared with quinine, all the other alkaloids were valueless, although in some instances the cheapness of quinidine caused it to be substituted for true quinine. The crystalline shape of cinchonine of course precluded any such substitution, except with the consent of all concerned. In a despatch dated September 30, 1865, the Secretary of State for India gave orders for the appointing a Commission of Medical men well skilled in the treatment of tropical fevers, who should ascertain, as far as possible, the relative values of quinine, cinchonine, quinidine, and cinchonidine as remedies in such disorders. Accordingly, supplies of these alkaloids, carefully prepared by Messrs. Howard, were sent out to each presidency, to be distributed among the Medical men selected by the Commissioners. The Madras and Bombay Cinchona Commissioners have sent in preliminary reports of incontestable importance. That from Bengal has not yet appeared.

The Madras Commission selected for their investigations spots notedly malarious, such as Goodaloor, in the Wynaad, Sumblepoor and Russelandah, in the Northern Circars, the Godavery jungles, Mysore, and others, and in these districts 1145 cases (of which accounts have been already received) of paroxysmal fevers were treated with cinchonine (410 cases), cinchonidine (359 cases), and quinidine (376 cases). Different Medical men exhibited these in different doses, some giving 15 or 20 grains for a dose, others 8 or 10, and others still only 2 or 3 grains. As a general rule the Commissioners express themselves in favour of medium doses of from 8 to 10 grains given once in the course of the day. Altogether, the effects of the alkaloids employed very closely resemble those of quinine: they produce the same sensations of giddiness, singing in the ears, deafness, etc., when given in large amount, and give rise to the same beneficial effects in debilitated constitutions when exhibited in smaller quantity. As remedies for paroxysmal fevers they seem to be of great value. Out of the 1145 cases only 4 deaths occurred, and these in a most unhealthy district, the patients being completely prostrated by the malaria, and in some cases suffering from diarrhœa or pneumonia, in addition to their ague. In 27 cases these alkaloids failed to arrest the paroxysm, but in some quinine was not more successful, whilst it is remarked that the patients were chronically affected with the malady. The Madras Commissioners do not express any belief in the superiority of one alkaloid over another, but those of Bombay seem to indicate that quinidine ought to rank immediately after quinine, making cinchonine and cinchonidine of about equal values, the doses of all three to be somewhat greater than of quinine. Certain of the Medical officers, however, prefer the cinchonine to the quinidine, whilst some report the successful use of these where quinine and arsenic had failed. Their value appears to be increased by alternating them with other remedies. With regard to cinchonine, it has been asserted that it gives rise to great gastric disturbance, producing vomiting and purging. This notion we find opposed by Dr. Keess, who seems to have taken much care in his investigations; whilst Dr. Chipperfield, of the Madras General Hospital, speaking most favourably of its effects as an antiperiodic, observes that such disturbance was usually observed in the successful cases Cinchonidine, he says, acted still more violently.

The importance of these investigations cannot be overrated. We only regret they were not undertaken at an earlier period, for much saving might have been the result. As an immediate consequence, these alkaloids will now be largely introduced into practice in India, and as their price is not one-third that of quinine, many more sufferers may be relieved, without at all increasing the already great expenditure. We regret that the therapeutic value of quinidine, a still cheaper product, has not been made the subject of investigation. From some experiments we have made, we are inclined to estimate it rather high in the scale of remedies; but even without this we must congratulate the Commissioners on such a successful termination to their labours. We venture to express a hope that the method so successfully pursued with these remedies may be employed with reference to others, a proceeding which, while doing good to humanity, would be calculated to consolidate the basis on which our knowledge of therapeutics rests.

THE WEEK.

TOPICS OF THE DAY.

The result of the election at the Royal College of Surgeons evidences the strength of the feeling which possesses the great body of the Fellows against the principle of granting long annuities in the honours and emoluments of the College. The three retiring candidates committed, we think, a mistake in offering themselves for re-election, and the result left them together at the bottom of the poll, separated by a long interval from the candidate next above them. In no degree, however, is this a proof that the majority of the Fellows felt any dissatisfaction with the manner in which Messrs. Skey, Wormald, and Kiernan have discharged their duties. On the contrary, it is simply an expression of the legitimate conviction that the power of election given to the Fellows by the College charter should be used to secure to all Surgeons who arrive at a certain eminence and influence a fair chance of obtaining a seat in the College conclave, and a share in the concomitant rewards. The large number of votes recorded for Mr. Luther Holden must be accepted as a protest on the part of a large number of Fellows against an unquestioning admission of seniority as a claim to support. The desire for class representation is bound up with the very existence of classes; and however much it is to be deplored that a body like that of the Fellows should be divided, it is evident, from the result of this election, that the junior Fellows do not consider themselves

adequately represented in the Council. It must be remembered that the Council-chamber is the only portal to the Court of Examiners, and there is a widely spread feeling that the Court of Examiners ought to receive a large accession of strength in the persons of men who are still engaged in teaching and advancing biological science. As regards scientific career, the Court of Examiners ought not to continue what it has hitherto been—a mere (albeit a comfortable) shelf. Mr. Holden was so nearly successful, that his present defeat is evidently only a prelude to success. Of Messrs. Hewett's and Birkett's return few entertained much doubt. Mr. Spencer Smith had not only seniority to back him, but also the fact that he had voluntarily retired from the contest on a previous occasion, rather than injure the chances of other candidates by an unsuccessful appeal to his friends.

Other changes have followed quickly in succession at the College. Sir William Fergusson has, we are glad to say, attained the seat in the Court of Examiners which is so justly his due, and all will rejoice that the generous course of action he adopted on the occasion of Mr. Solly's election should have not led to his long exclusion from that board. Mr. Partridge's tenure of the President's chair has been especially signalised by improvements in the examinations. We trust that his successor will continue his policy of reform and progress, although we are reminded by a correspondent (a conservative Surgeon, who writes from Colney Hatch) that his chief reputation has hitherto depended on his Collegiate rest-orations.

All hope of returning a Medical, or, indeed, a scientific candidate of any note for the University of London, is now abandoned. Of the candidates, Mr. Lowe has undoubtedly all the vantage given by great abilities, large influence in the House of Commons, and moderate and independent political opinions. He is, moreover, well informed on those subjects of public health which most nearly affect the Medical Profession, and his influence has always been thrown into the scale on the side of science and education. Sir John Lubbock is a *savant* amongst bankers, but his scientific claims are not so pre-eminent as to warrant his representing the University on them alone. For the rest he is comparatively untried. Mr. Quain's name will undoubtedly bring him support from many Medical graduates who think that the University ought to return one of its own members. A similar feeling will probably enlist a certain amount of support for Mr. Walter Bagehot, although the Medical names published in his list of supporters are few and far between. The design for the new University buildings is on view in the library of the House of Commons, and as no objection has been made to it, Lord John Manners takes it for granted that it is acceptable to the friends of the University in the House.

As we predicted last week, Dr. E. Symes Thompson has been elected by a large majority of votes to the Gresham Professorship. Dr. Russell Reynolds's appointment as Professor of the Principles and Practice of Medicine at University College has been officially announced, together with a vacancy in the Home Professorship caused by Dr. Reynolds's promotion. The late election to the Fellowship of the Royal College of Physicians has produced a degree of surprise and amusement in Professional circles, which has eclipsed even the growing dissatisfaction. But we reserve our comments on this matter to a future occasion.

DUST AND DISEASE.

The recent analyses of Mr. Titchborne, of Dublin, and Dr. Letheby, show that street dust contains, besides its inorganic constituents, no less than from 24 to 30 per cent. of organic matter, chiefly from the excreta which fall upon the thoroughfares. This state of things probably operates in the extension of human epidemics, especially diarrhœa; but certainly such dust blown upon the mucous surfaces of the eyes, mouth, and nostrils of cattle, is a means of extending epizootic infections.

THE ROYAL COLLEGE OF PHYSICIANS AND ITS CURRICULUM.

We are sorry to learn that the Royal College of Physicians is in danger of pursuing a retrograde course in the curriculum of education for its licentiates. A report from the Council of the College, presented to the Fellows on Tuesday, advocated a very loose construction of the recommendations of the Medical Council with regard to the commencement and duration of the period of Medical study; and the report of the Council, if carried into effect, would tend to cut down to two years and a half the time in which a boy from school is to learn anatomy, physiology, chemistry, and the Practice of Medicine, Surgery, and Midwifery! Other examining boards give a cheap diploma, and the College of Physicians must do so too, if it wants a brisk trade in its licence! For our own parts, we hope the Medical Council will be staunch and true to itself and to the interests of the Profession—say, rather, the interests of humanity—in requiring a four years' curriculum. But how it is to coerce a miserable crew of apothecaries or a remote Scottish College, whilst it permits recalcitrancy in the College of Physicians, remains to be seen. Happily, although the report has been "received," it stands over for future consideration; and we feel confident that the great body of the Fellows will not allow the College to enter on a course which will expose it to so much obloquy.

SPECIAL WARDS IN GENERAL HOSPITALS.

A department for the treatment of diseases of the throat has been instituted at King's College Hospital, of which Dr. George Johnson, Physician to the Hospital, takes charge. A department for skin disease is under the charge of Dr. Duffin, who is also one of the Medical staff of the Hospital. Recently, as we have announced, special departments for eye, ear, and skin diseases were opened at the London Hospital, and the establishment of a department for diseases of the throat was considered, but not decided on. However, a course of lectures on diseases of the throat and larynx will be given by Dr. Morell Mackenzie. This course will be duly announced.

WATER SUPPLY.

We trust that the water companies will carry out the recommendation of the Commission, and give a constant supply of water all through the week to the inhabitants of London. There can, we think, be little doubt that much of the disease and of the loathsome habits of the poorest of classes is the consequence of an insufficient water supply. This, we think, follows in two ways, because of the cisterns of the poor being too small to contain an adequate quantity of water, and from the absence of water which is required for the removal of excreta. But, bad as the state of things is during week-days, it is ten times worse on Sunday—on the day of all others when the greatest supply of water is required for cooking, drinking, and cleansing purposes. It should be borne in mind that among many of the very lowest orders of the people Sunday is the only day on which any attempt to thoroughly wash the body is made. Under existing circumstances, however, it often happens that the poor costermonger or itinerant labourer is unable to procure enough of water for that purpose; and therefore, dirty and degraded, it is no wonder that he slinks away into some pot-house to spend his day in bemuddling his brain with beer. If the recommendation we refer to is carried out, we have no doubt that much good, both for the poor and the public health, will be effected, and we trust that the water companies will see to it. If they fear the exhaustion of the present Thames supply, let them attempt Mr. Bailey Denton's reservoir scheme—at all events, let them be assured that not only is cleanliness allied to godliness, but that healthy life cannot be dissociated from wholesome water supply.

ARMY MEDICAL SERVICE.

We may direct the attention of our readers to what took place in the House of Commons a few days ago. Mr. Synan, in asking a question of Sir John Pakington regarding the new Army Medical Warrant, remarked upon the extreme slowness of promotion from the rank of Assistant-Surgeon to that of Surgeon. We certainly think that this is a fair source of complaint. Twenty or thirty years in the most subordinate rank is rather too much; but in other respects—viz., as regards the pay, position, etc.—the army Medical officers are well satisfied. An earlier retirement on a better sum than that given at present would overcome this difficulty in the matter of promotion, and confer a great boon on the Medical officer at the same time.

THE "LANCET'S" NEW GHOST.

There is a certain set of people who are always making discoveries, and who love to startle the world by the announcement that some vice as old as Adam is peculiarly the characteristic "of the present day." Some sages of this calibre actually find out that women "of the present day" are fond of dress, or "fond of excitement," or even fond of attracting the other sex, or of discarding an old lover for a new one. Sometimes they wake to the fact that servants "of the present day" tell lies, or rob, or enter into confederacies with tradespeople, as if we had never heard of the Davus and Syrus of Terence, or even of the roguish valets of the last century. The latest piece of sensational news which our contemporary, the *Lancet*, has hit upon, is the fact that some women and ladies' maids "of the present day" are a little too fond of stimulants, just as if women had never been accused before of a partiality for "strong waters." Nor can the *Lancet* and its followers refrain from a most unjust and unfounded libel on the Medical Profession, in the insinuation that the Doctors pander to the craving of their patients for alcohol. What sort of Professional and general society such persons draw their picture from, we cannot think; but certainly educated and decent people are everywhere found substituting light wine for port and brandy, and to this salutary change they have been chiefly led by the precept and example of our Profession.

HARD WATER *versus* SOFT.

We are very willing to give credit to the London water companies for the improvements they have effected in their water during the last fifteen years. And as for the water supplied by the Thames companies, there is not a shadow of suspicion that it is *at present* unwholesome. In winter and in rainy seasons, every gallon of it contains, in round numbers, about one-and-twenty grains of chalk, and one grain of "organic" matter. In summer and during dry weather, the quantity of chalk is about 16 grains, and of "organic" matter half-a-grain per gallon. It is noticeable, too, that diarrhœa is always most prevalent when the "organic" matter in the water is at its minimum. Having, then, a water bright to the eye, tolerably palatable when cool, and certainly not unwholesome, why do we desire a different or an additional supply? Because, as the population on the upper Thames increases, we never can be sure against dangerous pollution—because, as London grows, we want more water than the Thames under its present system can give us, if only for the purpose of keeping a large flow of cool water through the sewers. If the sewers be scantily supplied with water—and that, too, hot as it issues from scullcries, baths, and factories—there must be deposits and stenches, which no contrivance can prevent; the only remedy is a copious flow of cool water, to wash away deposits and hold gases in solution. It is all very well for Dr. Letheby to say that Thames water is not bad for tea and soup and washing, because it is softened by boiling before being used for these purposes, but we still cannot help wishing for the luxury of cold soft water to wash in at all times—the more so, as in the winter even boiling does not soften Thames water enough to make a bath comfortable; moreover, the deposit of chalk causes the householder once in two or three years to learn the exasperating fact that the kitchen boiler has cracked.

CHOLERA IN THE EAST.

In spite of all we can do, apparently we cannot prevent the occurrence of occasional outbreaks of cholera in India. One of the main factors of these outbreaks is to be found in the great annual gatherings of natives from all parts of the country at the annual fairs, with the concomitants of dirt, overcrowding, and every other insanitary abomination inseparable from large assemblages of the kind. There never was, perhaps, a more forcible illustration of the doctrine that cholera travels along the lines of human intercourse than that supplied by recent occurrences at Hurdwar. One of these great native gatherings took place there about April last. Cholera appeared in their midst; then the vast assemblage broke up, the people dispersed, returned to their respective homes, and spread the seeds of this disease along the whole line of their route. From Hurdwar, we are told, as from a centre, did the disorder radiate outwards in the diverging lines taken by these natives.

THE EPIDEMIC AT THE MAURITIUS.

We have received a few particulars relating to this epidemic which may not prove uninteresting to our readers. At Port Louis alone, 1944 persons died in twelve days of fever, giving a daily average of 162. This death-list is the most favourable one we have had lately, but still it represents a formidable mortality among the remaining inhabitants of a city estimated to have lost 20,000 of its population by death and flight during the present epidemic, and in which 12 represented the daily death-rate in ordinary times. The highest daily mortality from fever during the period occurred on May 6, when it reached 207, and the lowest—at any rate, the lowest of which we have any accurate knowledge—was on the 16th, when it was 123. There have been curious fluctuations in the daily mortality, but it is now steadily diminishing, and it is to be hoped that, as the cool season advances, it will do so still further. Diarrhœa and dysentery are very common complications and sequelæ; relapses are also very frequent. In point of fact, where the general health and strength are deteriorated by miasmatic and malarious influences, there is nothing to be done to secure recovery except removal from the soil and climate where these morbid agencies have been developed. The occurrence of diarrhœa would point to the presence of typhoid fever, but this disease in reality only accounts for a small number of the fatal cases. It appears to be agreed on all hands that the epidemic has been one of a bilious-remittent type of fever closely allied to, but still distinct from, yellow fever. In many cases at present, and this was particularly observable at the beginning of the epidemic, the fever was of the intermittent type. It is conceded by all that quinine is the only remedy which exerts well-marked curative properties; but the main difficulty has arisen from the presence of visceral engorgement and inflammatory complications affecting the abdominal organs, rendering the treatment difficult and the action of quinine uncertain.

ARE DISINFECTANTS KNOWN TO THE PRIVY COUNCIL?

The following horrible anecdote, extracted from Dr. Whitmore's Report on the Health of St. Marylebone for June, makes us ask again why the Privy Council ignores the use of disinfectants:—

"On a very recent occasion I had the opportunity of observing how greatly sickness and diarrhœa are produced by the offensive effluvia arising from large accumulations of manure. About a fortnight ago an outbreak of cattle plague occurred

in Malthouse-mews, Lisson-grove; adjoining to this is Carlisle-mews, and in these two places, at the time of the outbreak, there were 60 cows, and from 80 to 90 horses. These places were promptly declared to be an infected district, as directed by the orders of the Privy Council, and a "cordon sanitaire," so to speak, was placed round it; policemen stationed at the different outlets prevented the removal of all manure, offal, fodder, hay, straw, and everything that might be supposed to convey infection, and the result was that in a very short time immense heaps of manure had accumulated. After the interval of a few days, sickness and diarrhœa broke out amongst the inhabitants, and in order to ascertain the extent to which it existed, I caused a careful house-to-house inspection to be made. It was found that 149 men, women, and children resided in these mews, and that 61 were suffering from sickness and diarrhœa. It was not until after an interval of twelve days, and the expenditure of much time and trouble, that I was enabled to get the manure removed; had it been delayed for a few days longer, I have reason to believe that fatal consequences would have ensued. The regulations issued by the Privy Council in regard to the cattle plague are very stringent, especially so in preventing the removal of any matter or thing from a district which has been declared to be infected. It is expressly provided that all infected manure shall be first disinfected, and afterwards destroyed, no reference whatever being made to its removal, and even with regard to the manure of horses or cattle not infected, the difficulty of disposing of it, if contained within the infected circle, is very considerable. Every person will readily allow, that with a disease so intensely contagious and destructive as this, the strongest measures of precaution are necessary, provided always that in the application of them the public health is not endangered. In the case here referred to, a large number of persons were for nearly a fortnight subject to a nuisance so intolerable and nauseating, as to render it impossible for many of them to take food in their own houses, and who were positively compelled to take their meals in some neighbouring street where the horrible effluvia from the decomposing animal excreta had not penetrated.

"I would most respectfully suggest for the consideration of the Lords of the Privy Council, that increased facilities should be given to the local authorities for removing manure, offal, etc., from infected sheds and mews situated in crowded localities. It is obviously impossible that in these confined and ill-ventilated places the manure can be burned, but I apprehend no difficulty could occur in having it entirely disinfected, and afterwards removed to some appropriate place where it may be effectually and safely destroyed."

Why, we ask, was this disinfection not accomplished?

FROM ABROAD.—HYPERTROPHY OF MUSCLES IN A BOY—OPPOSITION TO LIEBIG'S ARTIFICIAL MILK IN PARIS—TROUSSEAU'S FUNERAL.

M. Bergeron brought under the notice of the Hospital Medical Society the case of a boy, aged 10, who exhibited a "remarkable hypertrophy of the muscular masses," as distinguished from mere muscular hypertrophy. Both parents were healthy, and in nowise remarkable. At 2 years of age the child was distinguishable for its size, but could not walk; but no precise accounts of its early years are attainable. However, until the age of 8, although doing it awkwardly, he was able to walk, as he went to school some quarter of a mile daily. Walking then became more difficult, as the limbs, always very voluminous, acquired greater development. For about a year movement has become nearly impossible, the child, on falling, being quite unable to rise again. On a flat surface he can with extreme difficulty manage to walk a few yards if left to balance his own awkward movements; but he cannot walk at all if held by the hand or arm. All the muscular masses, except the pectorals, present a truly monstrous volume for a child of his age, very exactly calling to mind the Farnese Hercules and Michael Angelo's studies of the muscles. The muscles of the face have undergone the same alteration, and perform their functions as badly as those of the limbs, to which, in part, is doubtless due the small amount of expression in his physiognomy. Not only the extraordinary volume of the muscles is remarkable, but their great hardness, even when in a state of repose. This struck M. Bergeron on first seeing the case, the sensation conveyed to the finger being exactly like that felt on pressing the skin in sclerema. This feeling, joined to the powerlessness of muscles apparently so powerful, led him to believe that it was not the muscular tissue itself which was hypertrophied, but that the connective tissue was the seat of a hypertrophy and induration more or less analogous to sclerema; and that the paralysis which prevailed was due to the separation thus operated between the muscular fibres by the cellular-adipose tissue abnormally developed—a view confirmed afterwards by microscopical examination. The attachments of the muscles in this case are delicate, the tendons detaching themselves neatly, and the joints are free, and, as the osseous system, quite in harmony with the age of the subject. The skin, also, is delicate and supple, and in no part are there fatty nodules, the hypertrophy being, in fact, confined to the muscular masses. Electrical contractility, although enfeebled, still persists, and there seems to be no functional disturbance of any kind, the boy being remarkably well. His intellect is but slightly developed, but he is no idiot, for he knows his letters, and knows very well how to count the pence which are given him, and for which he has a violent desire. He weighs 34 kilogrammes (about 78 lbs. avoirdupois). The boy was shown to M. Duchenne, who employed upon him his "histological trocar," which is a much more simple and inoffensive instrument than the German harpoon for examining the condition of the tissues in the living subject, causing, in fact, no more pain than an ordinary prick. The texture thus extracted proved under the microscope to be hypertrophied cellulo-adipose tissue, containing some undulated muscular fibres, the striated condition of which could scarcely be perceived. There was, in fact, no hypertrophy of muscular tissue, but rather an atrophy, or at all events a changed condition, of the fibre, the abnormal development of the connective tissue being the most remarkable phenomenon.

Baron Liebig's artificial milk, to the mode of preparation of which we recently (June 8, p. 634) adverted, and which has been found of such great service in Germany, has been met with quite a storm of reprobation at the hands of the chemists in the French Academy of Medicine. They say it is a chemically bad article, and cannot possibly be employed as a substitute for milk; and, on a demand that the subject should be investigated by a committee, the Academy passed on contemptuously to the "order of the day." M. Guibourt pointed out the difficulty nurses would have in preparing so complex a formula, while the company formed for supplying it on a large scale could not insure the purity of an article not consumed immediately. And why all this trouble, when a little manipulation of cow's milk, just skimming it, and adding a little sugar and a fifth of its weight of water, gives you the very thing you require? M. Depaul, on the ground of the artificial milk having failed to be of service in saving the lives of four infants on which he tried it at the Foundling Hospital, spoke also disparagingly of it. Various members of the Academy, as MM. Tardieu, Larrey, Bouley, Velpeau, etc., all seemed impressed with the danger of encouraging this Germanic invention, and thus imperilling the lives of French infants. At the last meeting of the Academy, M. Boudet again returned to the charge, and declared that the prospect was really alarming, lest, seduced by the name of Liebig, this pernicious compound, aided by those interested in its sale, should penetrate into any part of France and displace good wholesome milk of cow, goat, or ass. M. Poggiale declared that the death of M. Depaul's four foundlings while employing this substitute was a fact of so startling a character that it naturally prevented future experiments being made with it on the part of the Academy. To hear the Academicians speak of the deaths of these infants in such terms, one would suppose the Paris Foundling Hospital one of the healthiest localities, in place of the charnel-house it is. However, as a

chemist, M. Poggiale declares Liebig's analysis of human milk to be faulty, and his proposed substitute for it altogether wrong. "It differs altogether from that of woman's milk in its physical properties, its taste, odour, colour, consistence, and chemical composition. It is not to be supposed, consequently, that in feeding new-born infants it will fulfil the same physiological purpose as human milk. I reject it, then, with all my heart; and if maternal suckling cannot be obtained, if the sucking bottle must be had recourse to, I prefer cow's milk, the properties and composition of which are nearly the same as those of woman's milk."

The scanty attendance of professors and students at Trousseau's funeral has excited much remark. It is true that this may have arisen in some measure from the directions left by the deceased, who in them proscribed all pomp, funeral orations, or anything calculated for display, even specifying a limit to the number of candles to be burned on the altar. Still, one would have thought that this wise simplicity, so characteristic of the man, would have only drawn greater crowds of spontaneous followers; but it is only too true that the Faculty and Academy, and, strangest of all, the students, were very insufficiently represented. Heavy rain attended the progress of the procession, and warm indeed must the Parisian's enthusiasm be to induce him to face that. The older men who recollected the crowds which accompanied Dupuytren, Broussais, and others to their last resting-place, see a painful contrast in the meagre following of the last great teacher of the Paris School. M. Amedée Latour, we doubt not, touches upon the truth when he observes, in answer to a correspondent deploring what we have recounted—"Have you taken note of the actual state of feeling among the youth of our schools? It is quite possible that were death, which God forbid, to snatch from us Littré, Renan, or Charles Robin, you would see all those enthusiastic scenes renewed, concerning which you retain so ardent a recollection. But what are you to expect for the absurd vitalist who has just passed away, for the spiritual idiot who has had the supreme folly to demand the prayers of the Church!"

PARLIAMENTARY—TANCRED CHARITY BILL—CONTAGIOUS DISEASES (ANIMAL) BILL—MEDICAL OFFICERS OF THE ARMY—CRIMINAL LUNATICS; THE BRADMOOR ASYLUM—THE FEVER IN THE MAURITIUS—REPRESENTATION FOR THE PROFESSION IN IRELAND—THE NEW BUILDING FOR THE UNIVERSITY OF LONDON—THE APPOINTMENT OF INFERIOR OFFICERS IN THE LUNATIC ASYLUMS.

On Thursday, July 4, the House of Commons went into Committee on the Tancred Charity Bill. This Bill, it will be remembered, proposed the redistribution of funds left originally by Mr. Tancred for the support of twelve pensioners and twelve students of law, physic, and divinity. It is now recommended that the estate should be sold, and the money invested in the public funds, by which £1000 per annum would be gained for the purposes of the charity. The Bill also proposes that the number of pensioners should be limited to twenty-four, that the pensioners should no longer be provided with residence, and that the surplus funds should be applied to the foundation of more studentships. After some discussion the motion to report progress was agreed to.

The Contagious Diseases (Animal) Bill was committed *pro formâ*.

On Friday,

Mr. Synan rose to call the attention of the House to the report of August 10, 1866, of the Committee appointed to inquire into the rank, pay, and position of the Medical officers of the army. He referred to the evidence given before the Select Committee of 1866 by Professor Longmore, Dr. Rees, and Dr. George Johnson, to show that the chance of promotion for Medical officers in the army was so small that only inferior candidates could be expected to enter the service. At present there was a manifest deficiency in the attainments of candidates. In 1865 the candidates were almost all of the third class. During the present year the highest number of marks obtained was 1079, the maximum being 3400; and the lowest number was 146, the minimum being 1034. The Committee had made five recommendations, but only one of them, the last, had been attempted to be carried out. That related to the grant of increased pay and earlier retirement. The warrant carrying this out was dated April 1 last, and made no reference whatever to the other recommendations of the Committee or the warrant of 1858. The Medical officers, therefore, did not know whether the warrant of 1858 was in existence, or whether it was intended to carry out the other recommendations of the Committee. The Medical officers were satisfied with the rate of service pay fixed, but not with the retiring pay allowed by the warrant of April 1. After a certain period of service a Surgeon-major was entitled to retire upon a rate of pay which should not exceed one-half of his full pay. Thus, a Surgeon-major of 20 years' standing would be entitled to a retiring pension of 12s. a day, while an Assistant-Surgeon who might have served thirty or forty years would only be entitled to a retiring pension of 8s. 9d. a day. With reference to the promotion of the Medical officers in the army, the warrant of last April directed that they should only be promoted in order of seniority, and then not until after five years' service, the result of which order would be, according to the returns for 1861-2-3-4-5, which had been furnished to that House, that it would take forty years to make an Assistant-Surgeon a Surgeon. The returns on the same subject, which applied to her Majesty's troops in India as well as at home, embracing the last ten years, showed that it would take an Assistant-Surgeon thirty-one years to become a full Surgeon, and even then he would only be entitled to a retiring pension of 8s. 9d. a day. The remedy proposed for this grievance was that a time should be fixed when the Assistant-Surgeon should become a full Surgeon. The Assistant-Surgeons were also anxious that their rank should be recognised, and that they should be denominated "Junior Surgeons," instead of "Assistant-Surgeons." Another ground of complaint was that the Medical Officers in the cavalry, who had to keep a horse, had to pay 8½d. a day for horse forage, whereas in the infantry they were allowed 1s. 10d. a day for the keep of their horse. The hon. gentleman pointed out that the importance to the army of good regimental Surgeons could not be overrated, and quoted a remark made by Sir James Outram shortly before his death to the effect that the services of Medical Officers in the army were ill requited, and that the next great war would settle the controversy terribly in their favour. In conclusion, he moved the resolution of which he had given notice—

"That, in the opinion of this House, the alteration made in the Royal Warrant of the 1st day of October, 1858, has not only operated prejudicially to the interests of the Medical Profession, but produced an injurious effect upon the military service of the country, and that it would tend to procure a better qualified class of Medical officers, and thereby promote the greater efficiency of the military service generally, if the recommendations of the said Committee were carried out in their integrity."

Sir J. Pakington said that if the hon. member were of opinion that the Medical officers of the army had not been treated in a satisfactory manner, he was quite right in bringing the subject under the notice of the House. He entirely agreed with the hon. member that the army ought to have competent and well-qualified Surgeons, and it was no less essential that they should be treated in a most kind and liberal spirit. No class of persons, indeed, were more entitled to consideration than the Medical officers of the army and navy. The question then really was, whether those officers had any fair ground of complaint. The member for Limerick seemed to think they had, and in support of this view had adverted to the warrant issued in 1858. That warrant was issued at a time when his right hon. and gallant friend the member for Huntingdonshire was Secretary for War, and he thought it would be admitted that it was conceived in a spirit of the greatest consideration and generosity towards the Medical officers of the army. But the hon. gentleman complained that that warrant had been subsequently allowed to fall into neglect. Now, he believed the warrant was not carried out to its full extent, and the result was that evils and inconveniences arose, so that a further inquiry became necessary. Accordingly in 1866 a committee was appointed, presided over by Sir A. Milne, and the hon. gentleman now complained that the recommendations of that Committee had not been carried into effect. He must say, however, that in his opinion the hon. member had somewhat

overstated this part of his case. The hon. member had referred to a point on which the Medical officers were very sensitive—viz., their relative rank in regard to the other officers of the army, and particularly to the position which the Medical officers occupied when called upon to assist in any boards of inquiry. The fact, however, was that the Committee recommended that when Medical officers were engaged on such boards they should be entitled to occupy the position which their relative rank entitled them to, but at the same time it was recommended that mixed boards should not be continued. Now, whatever might be the merits or demerits of these mixed boards, he, being an unprofessional man, was unable to say; but it was at all events clear that that recommendation absolutely confirmed the rule that if Medical officers did sit on mixed boards they should have the benefit of their full rank. Then as to the position of Medical officers at the mess, the recommendation was that if they did not enjoy their full relative rank they should be allowed to hold the second place. In his judgment that met the difficulty of the case. Again, there were recommendations respecting the position which Medical officers were to occupy in the army, and the greater part of these recommendations were acquiesced in. It was true that a recommendation that they should be restored to the classification which they formerly held had been disapproved at the Horse Guards and at the War-office; but this was, he believed, a point of minor importance. The hon. gentleman had thought that the Medical officers should be allowed to have chargers and to appear mounted on parade, but the fact was that the recommendation was to the effect that it should be compulsory on them to do so. It appeared, however, that this was regarded by the Medical officers not as a boon but quite the reverse, and, therefore, the recommendation had not been enforced. He was surprised that the hon. gentleman should have touched so lightly on the rate of pay which the Medical officers received, and in this respect he challenged the hon. member to say that they were not most generously and liberally treated. With few exceptions he believed that the recommendations of the Committee had been literally and in spirit carried out, and that the army Surgeons, so far as these recommendations were concerned, had no ground to complain. That there was a deficiency of candidates both for the army and the navy was unfortunately the fact; and he should be glad to make any arrangements which he consistently could make in order to render the military service more attractive.

Sir R. Anstruther said the whole cause of the dissatisfaction existing among the Medical officers of the army had arisen from the alteration in the warrant of October 1, 1858. Had that warrant been carried out, Parliament would not have heard a word of these complaints, and the present dearth of first-class Medical men in the army would not have been as lamentable as it now is.

The resolution was then withdrawn.

Amongst the questions asked in the House of Commons on Monday was one by Mr. Floyer in reference to the non-admission of persons becoming insane while under imprisonment, except for terms of penal servitude, into the Bradmoor Criminal Lunatic Asylum, to the inconvenience of the county asylums where such insane prisoners are henceforth to be confined. Mr. Hardy, in reply, stated that Bradmoor was fully occupied by other classes of criminal lunatics, and that, there being no room, it was necessary that those who became insane during imprisonment (other than penal servitude) should be confined elsewhere.

In answer to a question by Mr. Pim in reference to the fever in the Mauritius, Mr. Adderley was understood to say that up to May 2 there had been 17,000 deaths, of which 10,000 had occurred at Port Louis alone, and at the date of the latest intelligence there was no abatement of the epidemic.

On Tuesday, in the House of Commons, a petition was presented by Mr. Fitzpatrick from the Irish Medical Association, praying that provision may be made in the Irish Reform Bill for a representation of the Medical Profession in Ireland.

Mr. Locke (in the absence of Mr. Layard) asked the First Commissioner of Works whether the revised elevation for the façade of the London University, to be erected in Burlington-gardens, now exhibited in the library, would be adopted.

Lord J. Manners said that the elevation had been for some time in the library. Some alterations had been made in the details in accordance with the views of the hon. member for Bath (Mr. Tite). He had not heard, either in public or private, any hostile criticism of the design, and he presumed he might consider that it met with the approbation of the Building Committee. He should therefore instruct Mr. Pennethorne to carry it into effect.

Lord Naas obtained leave to bring in a Bill for transferring the power of appointing the inferior officers and servants of the Irish lunatic asylums (which has hitherto been in the hands of the Government) to the local authorities, and for repealing an Act by which dangerous lunatics were confined in the different prisons of that country.

SIR WILLIAM LAWRENCE, BART., F.R.S.

It is with great regret that we record the death of Sir William Lawrence, Bart., Sergeant-Surgeon to the Queen. It will be remembered that this distinguished Surgeon was struck with paralysis of the right side just two months ago, while ascending the stairs in the College of Surgeons to take his wonted seat as an examiner. He recovered so far as to be able to walk and to drive out, though he never regained the power of speech, but on Thursday last week he had a second stroke, and died at his house in Whitehall-place on the 5th instant, a few days short of the age of 84, very nearly the same age at which his father died.

It was only in the month of March this year that we had the pleasure of announcing that Her Majesty had conferred the honour of a baronetcy on Mr. Lawrence, a mark of royal favour which seemed to come somewhat late, and certainly illustrated the order rather than the recipient; but it is known that Lawrence might have had this distinction long before this had he chosen, for his Professional fame and honours were won while the present century was still young.

Forty years ago, indeed, very few English Surgeons had so brilliant and wide-spread a reputation, at home and abroad, as William Lawrence, even then full Surgeon to St. Bartholomew's Hospital. Of late, however, he had so withdrawn from the practice and work of the Profession, that to our students and youngest members he was chiefly, or only, known by his being still a member of the dread Board of Examiners at the College of Surgeons, while we suspect that many a grey-headed Practitioner found it difficult to believe that the William Lawrence who was gazetted a baronet in March last could be in reality the Lawrence whom, in his own young days, he had admired, boasted of, and reverenced, or had freely criticised whilst admiring, according as he was a student of St. Bartholomew's or at some other Metropolitan School. He had numbered the Lawrence he had known with Abernethy, Astley Cooper, Brodie, and the other great ones of the beginning of the century, not believing he could be still living to receive new honours and dignities.

William Lawrence was born on July 16, 1783, the same year as the late Sir Benjamin Brodie, at Cirencester, in which town his father was a Surgeon of some note, a paper by whom, on influenza, may be read in the *London Medical and Physical Journal* for 1803. His celebrated son was educated at a classical school near Gloucester, and early in 1799 came up to London to reside with Mr. Abernethy, then in the fulness of his fame. Of all the many and great advantages and opportunities for learning which would belong to such a position as the being a pupil of Abernethy, young Lawrence made the best possible use, so that in three years' time he was appointed Demonstrator of Anatomy in the school attached to St. Bartholomew's Hospital, and continued to fulfil the duties of that office for twelve years. He became a member of the Royal College of Surgeons in the year 1805; in March, 1813, was made Assistant-Surgeon, and in May, 1824, full Surgeon, to St. Bartholomew's Hospital. This appointment he continued to hold till the year 1865, having at the time of his resignation been Teacher and Surgeon at that institution for more than sixty years; his career contrasting in this respect somewhat remarkably with the fortunes of Mr. Wormald, who, out of

the forty years during which he had been connected with the same School and Hospital, had been full Surgeon only five years when the law of superannuation, under which Lawrence never came, obliged him to retire.

In 1813 Lawrence was elected Surgeon to the Eye Infirmary, now the Royal Ophthalmic Hospital, Moorfields, and held the appointment for several years, during which he gave valuable courses of lectures on diseases of the eye at the institution. In the year 1815 he became Surgeon to the Royal Hospitals of Bethlehem and Bridewell, and retained the office to the last. In the same year, when he was only 32, he was made Professor of Anatomy and Surgery to the Royal College of Surgeons, and during the four years of his Professorship delivered courses of lectures of remarkable learning and brilliancy, which made a great stir and noise at that time, and to which we shall again refer. In 1826-7 he lectured on Surgery at the Aldersgate-street School, and in 1828-9 succeeded Mr. Abernethy as Lecturer on Surgery at St. Bartholomew's, and held this chair till 1865, when he was in his 82nd year.

Thirty-nine years ago, in the year 1828, he was elected into the Council of the College of Surgeons, and on the Board of Examiners in 1840. The duties of this latter office he continued to perform till he was attacked by paralysis this year, one of his earliest acts after he recovered consciousness having been to send in to the College his resignation of his appointment as Examiner. He was twice President of the College—viz., in 1846 and 1855; and twice also, in 1834 and 1846, he delivered the Hunterian Oration.

At a very early age he became an author, and has contributed largely to the literature of the Profession. When in his 18th year he produced a translation of a "Description of the Arteries of the Human Body," a work in Latin by Adolphus Murray, M.D., Upsal. At least, we believe we are correct in attributing the translation to Lawrence, though it was published anonymously. He obtained the Jacksonian Prize for an essay on hernia in 1806, and in the same year published a translation of Blumenbach's work on "Comparative Anatomy." In 1808 he contributed to the Edinburgh *Medical and Surgical Journal*, "Observations on a Peculiar Affection of the Testis, attended with the Growth of Fungus from that Organ"—a valuable paper, containing, we believe, the first clear and definite description of the disease. The first edition of his well-known work on hernia, based on his prize essay on that affection, appeared in 1807, and rapidly attained the position of a standard classical work; a third edition, "revised and corrected, in large 8vo," was published so long ago as in 1816, and at least two later editions have been required. His "Observations on Lithotomy," in which he recommended the use of the knife instead of the gorget, and the return to the true lateral operation, came out in 1809. His description of the operation was clear, concise, and perfect, and he advocated the use of only a knife, the staff, and the forceps, "What is more than these," he observed, "cometh of evil."

The celebrated "Lectures on Anatomy, Physiology, Zoology, and the Natural History of Man, delivered at the Royal College of Surgeons," were published in 1819, and were dedicated to Professor Blumenbach, "from whose sagacity, industry, and learning," it is gracefully acknowledged in the preface to the work, "the principal subject of the following pages has received its most numerous and successful illustrations." In 1830 appeared his "Treatise on Venereal Diseases of the Eye," and in 1831 an elementary work entitled "Treatise on Diseases of the Eye"—both well known and valued works.

He was an active and fruitful Fellow of the Royal Medical and Chirurgical Society, the *Transactions* of which contain at least eighteen papers from his pen. He was a Fellow of the Society for nearly sixty years, and presided over it in the years 1831 and 1832. All his papers display well the writer's learning and talent of observation, and his remarkable power of stating most clearly and vividly whatever he wished to say; but it would take up too much of our space to give even their titles. The most important and longest of them is that entitled "Observations on the Nature and Treatment of Erysipelas," which fills more than 200 pages of vol. xiv. of the *Transactions*. The great object of it was to recommend the treatment of phlegmonous erysipelas by incisions—a practice originated by Mr. Guthrie, and carried out to its fullest extent by Lawrence. But the treatment has now fallen into disuse, and, if we are not mistaken, the subject of erysipelas was altogether omitted in the edition of his lectures published by Lawrence in 1863.

All the anatomical and physiological articles in "Rees' Encyclopædia" were also written by Lawrence, some of them before he had completed the term of his apprenticeship to Mr. Abernethy; and he also supplied the admirably clear and exact anatomical descriptions for Mr. J. J. Watts' "Anatomico-Chirurgical Views of the Nose, Mouth, Larynx, and Fauces," published in 1809.

Lawrence was elected a Fellow of the Royal Society in 1813, and was Vice-President of the Society during the Presidency of the late Duke of Sussex. On the formation of Queen Victoria's household he was appointed one of her Majesty's Surgeons Extraordinary, and at the time of his death was her Senior Sergeant-Surgeon.

These facts and notices, and they might easily be increased in number, form the dry bones of a biography of Sir William Lawrence, and it must be acknowledged that they mark out a career of no common eminence and distinction. And Lawrence was unquestionably one of the most gifted and eminent men of his day and generation; but some men may doubt whether he will be remembered as a great Surgeon; and though for very many years he enjoyed a very large private practice, it does appear to us that he did not succeed in attaining that commanding position in the Profession which his early career seemed to promise. It is certain that the late Sir Benjamin Brodie, who did not equal him in incisiveness of understanding and brilliancy of wit, outstripped him in the race for Professional honours and success, and that Lawrence never acquired the confidence of his Professional brethren to the degree and extent that Brodie did. We may very well quote here the large and generous tribute Sir B. Brodie pays in his autobiography to the powers and gifts of his rival. In speaking of the distinguished men he was contemporary with, he says that one "was Lawrence, who has since acquired so large and well-deserved a reputation. He was even then (1801?) a remarkable person. I never knew any one who had a greater capacity for learning than he had, nor more industry, nor who at the same age had a greater amount of information—not merely on matters relating to his future profession, but on a great variety of other subjects. From that time to the present, Lawrence and myself have been moving in parallel lines, he having had the largest share of private practice next to myself; and it may be regarded as somewhat to the credit of both of us that there has never been any manifestation of jealousy between us. I have already mentioned that when a young man he had some faculties in great perfection, and he has them still, and but little, as far as I can see, impaired by the addition of fifty years to his age. He has a great memory, and can readily recur to and make use of what he knows. He has considerable powers of conversation, but without obtruding himself to the exclusion of others, as is the case with too many of those who are reputed to be good talkers. What he says is full of happy illustrations, with, at times, a good deal of not ill-natured sarcasm. In public speaking he is collected, has great command of language, and uses it correctly, but not equal to what he is in ordinary society. In writing, his style is pure, and free from all affectation, yet in general not sufficiently concise. His reading has been extensive; he is well acquainted with modern, and moderately so with the ancient, languages. His Professional writings contain a vast deal of information, but it is more as to what he has taken from other authors than as to the result of his own experience and observation. That he is thoroughly acquainted with his own profession cannot be doubted, for it would not have been possible for him otherwise to retain for so long a period the high place which he has occupied."

This estimate of Lawrence's character and powers is, on the whole, we think, just and strictly true; but many will consider that, in some respects, it is too favourable to the man, while, on the contrary, some will think that it hardly does justice to his gifts and acquirements. As a slight proof of the reputation he had gained, even out of his own country, the following paragraph may be quoted from "Rambles in Europe in 1839," by Dr. William Gibson, of Pennsylvania. After speaking of his visits to Cooper and Brodie, he continues thus:—"What Medical man from this or any other country would visit London without seeing Mr. William Lawrence, so well known for the extent and variety of his information, for his intimate acquaintance with, and facility of speaking, most of the languages of modern Europe, for his celebrity as an anatomist and Surgeon, for his valuable treatise on hernia, for his lectures on physiology, zoology, and natural history of

man, for his beautifully written articles in 'Rees' Cyclopædia,' and for his excellent character in private life."

Of Lawrence's remarkable conversational powers there can be no question; Sir Benjamin Brodie does not speak one whit too highly of them, and we have heard it said by a most competent and authoritative judge of such a matter, that "Lawrence was the most remarkable, most brilliant, and charming talker he had ever met;" but he had a great and dangerous gift of sarcasm, and people by no means always thought it "not ill-natured." Its use was doubtless often without *malice prepense* or intention to wound, but still often gave offence and caused its owner to be admired and feared rather than loved. As a lecturer no teacher of his day equalled him: his manner and delivery were easy, artistic in that they betrayed no art, and effective; his language always clear and correct, often polished and elegant, and sometimes rising into masterly eloquence. His Hunterian Orations are the highest and most finished examples of his oratorical powers and eloquence, while his "Reply to the Charges of Mr. Abernethy," introductory to his lectures at the College of Surgeons in 1817, and his "Speeches at the Freemasons' Tavern" in 1826, are the most perfect specimens of his power of hostile criticism, sarcasm, and invective. In these last, he attacked with great vigour and causticity of language the management of the College and the constitution of the Council and the Board of Examiners, especially commenting on the impropriety of men retaining office at those boards after they had arrived at the "sere and yellow" time of life. He thereby made many enemies within the walls of the College, and though he did his best, we believe, afterwards to suppress the speeches, they have often been remembered and quoted against himself of late, when after even the age of 80 he retained his seats in the Council and as an examiner.

His "Lectures on Physiology, Zoology, and the Natural History of Man," were remarkable for the learning, industry, and research, with clearness of arrangement, vividness of description, and ease of grasp of knowledge that they displayed; and they did valuable work in exciting and furthering a love for the study of comparative anatomy and the natural history of man. But great and wide-spread hostility was excited by the tone and freedom, to say the least injudicious, with which the connexion between organisation and the mental and intellectual faculties of man was discussed. For example, to make one quotation, it was affirmed that "the same kind of facts, the same reasoning, the same sort of evidence altogether, which show digestion to be the function of the alimentary canal, motion of the muscles, the various secretions of their respective glands, prove that sensation, perception, memory, judgment, reasoning, thought—in a word, all the manifestations called mental or intellectual—are the animal functions of their appropriate organic apparatus, the central organ of the nervous system." Language such as this very naturally led to its author being denounced as a materialist; and Mr. Abernethy, in his own lectures at the College, charged his former pupil with having perverted the office entrusted to him by the College to the very unworthy design of propagating opinions detrimental to society and to the highest interests of mankind. Lawrence replied, with much bitterness and eloquence, and with some skill of fence; he declared that he had been speaking *physiologically* only, and that what he had said had nothing to do with the question of the separate existence and immortality of the soul, and he observed that "whereas we consider that this belief (in the immortality of the soul, and a future state of rewards and punishments) prevailed universally in the vast and populous regions of the East for ages and ages before the period to which our remotest annals extend, and that it is firmly rooted in countries and nations on which the sun of science has never yet shone, the demonstration that the anatomical and physiological researches of the last half-century have not the most remote connexion with, or imaginable influence on, the proof of these great truths will be complete, beyond the possibility of doubt or denial, in the estimation of every unprejudiced person." But the general feeling as to the dangerous character and tendency of these opinions, and the tone in which they were expressed and supported, remained unchanged, and was so strongly evinced that Mr. Lawrence was not able to resist it. He acknowledged that experience and reflection taught him that the publication of some parts of his lectures was highly improper, and he withdrew the book from circulation. It was one of those instances of an eager and zealous votary of science forgetting all else but mere science, and mistaking knowledge for wisdom, which are not very rare, and give weight and point to the warning of our Poet Laureate—

> "Hold thou the good, define it well,
> For fear divine Philosophy
> Should push beyond her mark, and be
> Procuress to the Lords of Hell."

Lawrence made what amends he could for his error by suppressing his book, and never repeating the offence; but neither this episode in his life, nor that previously referred to, in connexion with his speeches against the College of Surgeons, were ever wholly effaced from men's memories, and were doubtless among the causes of his never fully gaining the confidence of the Profession or the public.

We have mentioned that in his "Reply to Mr. Abernethy's Charges," Lawrence gave the freest possible play to all his powers of sarcasm and invective. He seemed to have forgotten for the time all his former professions of admiration and friendship for, and gratitude to, his old master in the irritation caused by free criticism of himself, but he made ample amends afterwards by his eloquent and critical eulogies of him in the introductory lecture to his first course of Surgical lectures at St. Bartholomew's, and in his first Hunterian Oration. In the latter he speaks of Abernethy as a kindred genius with Hunter, and remarks that "his Surgical and Physiological essays, published at an early age, display an original turn of thinking and talent for observation which have seldom been surpassed. He may justly claim the great merit of having excited and exemplified, by his writings and lectures, a more scientific investigation and treatment of Surgical diseases. . . . He saw clearly that there is only one kind of pathology; that there is no distinction in source, nature, and treatment, between Medical and Surgical diseases, and, consequently, that Surgeons ought to study general pathology and therapeutics." This doctrine Lawrence himself also frequently and most ably upheld and enforced. We have heard it remarked that Lawrence's works are only, or chiefly, *résumés* of the labours of other men, and that the art of Surgery owes no marked or distinctive advance to his talents. And there may be some degree of truth in the observation. But, at any rate, his works, if chiefly compilations, are compilations of rare and great merit, showing remarkable industry and clearness, and introducing to English Surgeons the labours and knowledge of their foreign brethren to a degree and extent hitherto unknown. And it is no small thing to have given such a life-long and long-lived example of untiring industry and mental culture; to have promoted to such an extent the study of comparative anatomy and zoology; and to have taught with such eloquence and commanding ability the oneness of Medical and Surgical science. As teacher and author it will be long ere the name of William Lawrence fades out of the annals of English Surgery. At the same time we must confess to a belief that Lawrence did not make the most happy choice of a profession, but that he would have commanded greater and more eminent success at the bar than he did in Surgery; his great capacity for learning, unwearying industry, and powerful and ready memory, his command of language and aptitude for public speaking, his generally calm and imperturbable self-possession, his acumen, his powers of sarcasm and of prompt and sharp retort, all the gifts and acquirements that especially distinguished him, peculiarly fitted him for the bar, and would have insured his attaining its richest and highest rewards and dignities.

Sir William Lawrence's personal appearance was particularly striking and expressive; he had a fine, tall, manly figure; and his head and features were models of intellectual beauty and power. He was an excellent host, and the graceful hospitalities he for many years so freely extended to friends and foreigners at Ealing-park, rich in the horticultural triumphs and glories of the late Mrs. Lawrence, will long be remembered.

Besides the honours and dignities we have already mentioned, he was a member of the French Imperial Institute, and Fellow of a large number of learned and scientific foreign societies. He has left behind him two daughters; and one son, now Sir J. Trevor Lawrence, who is a Member of the Royal College of Surgeons, and served for some years as a Medical officer of her Majesty's Indian Army.

Mr. Soelberg Wells has been elected Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

REVIEWS.

On Joint Diseases; their Pathology, Diagnosis, and Treatment, including the Nature and Treatment of Deformities and Curvature of the Spine. By Holmes Coote, F.R.C.S., Surgeon to St. Bartholomew's Hospital, Consulting Surgeon to the National Orthopædic Hospital, etc., etc. London: Robert Hardwicke. 1867. Pp. 296.

Few subjects in the whole range of Surgery have called forth the labours and opinions of the leaders of the Profession more than that of diseases of the joints, and upon no subject probably have such differences of opinion been broached, or such varieties of practice been devised; and in no one matter can the improvements which have for the last twenty years or so been effected in Surgical practice be better illustrated than by a contrast of the past and present system of treatment of joint disease. We have before us the work and opinions on this subject of one of the most able London Surgeons. Mr. Holmes Coote has, in addition to his experience of St. Bartholomew's, long been attached to the Orthopædic Hospital, where it may be presumed he has had great opportunities of examining and studying this branch of Surgical disease, and has not, we may infer, in his practice fallen into the error of drawing that difference between disease and deformity of joints which amongst some Surgeons promotes the study of the former to the exclusion of the latter, which has hitherto been consigned to specialists, but, to use his own words, considers that "disease may lead to contractions and other deformities of the limbs; while, on the other hand, deformities, if allowed to remain uncorrected, may be followed by impairment of nutrition, or by active inflammatory disease."

With regard to the classification of joint diseases, Mr. Coote finds fault with those writers who classify inflammations, whether acute, subacute, or chronic, occurring in the synovial membrane, cartilage, bone, or ligament, as comprising the whole, or nearly so, of the pathological conditions. "This system," he considers, "omits all mention of deformities, whether congenital or acquired, and does not touch on changes dependent on errors of nutrition, and assumes the existence of inflammation in some tissues, such as cartilage, where such disease never occurs, or in others, such as ligament, where its presence is only secondary or dependent on inflammation spreading from other sources."

The object of the present work is "to call attention to the natural processes of repair, to point out how much may be done even in the most unpromising cases by combining mechanical with general treatment, and the strict enforcement of rest."

The author states that he has endeavoured as far as possible to limit himself to his own opinions rather than give a general *résumé* of those of others.

The first chapter, on the diseases of the joints, is devoted to the consideration of synovitis and its treatment, in which latter Mr. Holmes Coote is no advocate of mercurials, and thinks that the evidence of their benefit rests on insufficient proof. A good instructive chapter (V.) on the treatment of the articular extremities of bones completes the general description of diseased joints.

That most important principle of treatment, perfect rest of the affected joint, together with the means to be adopted to obtain it, are ably discussed, and the accurate methods of making the various splints, gutta percha, etc, carefully described—a point too frequently, in Surgical works, left to the imagination of the reader.

The author does not consider the division of tendons in contracted joints in children a proceeding frequently required, inasmuch as most joints come out by extension. We may remark, however, that we have seen several cases where, had the division of tendons been adopted, the necessity of a subsequent operation on the joint itself would probably have been averted.

As Mr. Coote states, "it is worthy of remark that with a large class of Practitioners local applications constitute the only, or nearly the only therapeutical treatment of diseases of the joints. Their utility is doubtless great, but we should fail in affording the patient his full measure of relief if we did not endeavour to ascertain with accuracy that peculiar fault of constitution which rendered him prone to such disease, and to employ the special Medical treatment required." This is a point obviously of great importance, and we have often remarked that in our Hospitals even the treatment seems to be in many cases too purely Surgical.

The next three chapters are devoted to the description and treatment of disease of the individual joints.

Mr. Coote is no strong advocate for resection of the knee-joint under any circumstances, and disapproves of it almost unconditionally in children, "in whom," he says, "the limb afterwards becomes year by year weaker, more withered, and less equal to the opposite member." Much as conservatism is to be commended, we think that as regards the knee-joint the operation of excision is far too frequently performed, as the mortality from such operations proves; and even in the majority of those cases that recover, in children particularly, the limb is comparatively useless and unable to support the heavy boot required to make the limbs of the same length. The mortality after resections of the knee-joint for disease is one death in every $3\frac{1}{2}$ cases (author). We quite agree with what the author states in his preface, that greatly as "we admire the spirit of conservatism with which the proceeding (excision of the knee) is characterised, as opposed to amputation, yet we must confess a misgiving as to its general applicability, and feel a desire that the advantages to be derived from mechanical treatment, and the enforcement of complete rest should be tried more continuously and with yet greater patience."

Again, the period of convalescence is a point not to be lost sight of in cases admitted into Hospitals. After excision of the knee-joint, this period is at best very tedious and painful, and the case may after all require further Surgical interference, as removing dead bone, opening abscesses, laying open sinuses, or re-resection (a not unfrequent alternative). To an already enfeebled constitution the drain on the system would be far greater than would happen supposing amputation were resorted to at first.

The remainder of the volume is devoted to the consideration of morbid changes in muscles and tendons, hysterical affections, wryneck, sprain, etc.; injuries, talipes, rickets. In the chapter on the treatment of cicatrices after burns we hardly think Mr. Coote gives prominence enough to the undoubted efficacy of plastic operations for the re-adjustment of such deformities. We have published repeatedly in our Hospital Reports cases where the success of such an operation has been perfectly wonderful. We allude to some cases operated on by Mr. Wood, of King's College. We have frequently seen excellent results from dissecting away the subjacent fasciæ before removing cicatrised tissue.

The volume contains but little absolutely original matter, but is a good sound book of reference, and a most valuable addition to a Surgeon's library. The contents are nicely arranged, and it is written in a pleasant readable style.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

THE PARIS EXHIBITION.

Surgical Instruments—(*Continued*).

Paris, July 2.

The distribution of prizes to the successful candidates at the Exhibition took place yesterday in the Palais de l'Industrie, and nothing which could render the solemnity an impressive one had been neglected. The central nave of that immense building was converted into a vast and gorgeously ornamented amphitheatre, in which 20,000 spectators were assembled. The throne stood in the centre of the transept, on the northern side of the Palace.

The Emperor was accompanied by the Empress and the young Prince, whose health now appears to be completely restored. The Prince of Wales, the Prince of Prussia, the Duke of Cambridge, and a host of other illustrious personages surrounded the Sovereign, but the attention of the public was, of course, chiefly attracted by the presence of the Sultan and the members of the Turkish imperial suite.

Without attempting to describe the ceremony—a task which will be better achieved in the political press—or to enumerate the long list of names, which appear in full in the *Moniteur*, I may be allowed to notice three of the chief nominations which are in some degree connected with matters of interest to the Profession.

The great prize for Surgical instruments was awarded to M. Mathieu, of Paris, whose name has already appeared more than once in the columns of the *Medical Times and Gazette*.

Another great prize was granted to Dr. Brunetti, of Padua, for a new method of preserving anatomical preparations, which enables them to retain the natural colour, size, and appearance of the living parts, in a most remarkable manner.

And, lastly, although the Physician is not professionally a wine-bibber, he cannot fail to be interested in the ingenious process for preserving wine, which has obtained for the celebrated chemist, M. Pasteur, a similar reward.

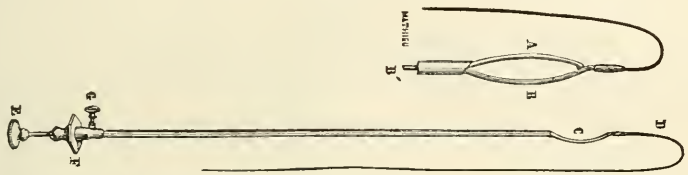
But the unusual *éclat* of the official ceremony must not divert us from our humble task. We shall therefore continue our survey of French Surgical instruments in this letter, in order to bring it to a conclusion.

The urinary organs have at all times greatly attracted the attention of French Surgeons, and the instruments destined to operate on these parts are largely represented here. We shall only notice a few.

Urethrotomy is an operation which, although generally condemned in France, would seem to be regaining some of the ground it had lost, if we may judge from the numerous instruments for that purpose which we find here exhibited. One of the most ingenious is that of Dr. Mullig, as modified by M. Mathieu. When shut it consists of a slender stem, exhibiting a slight curve towards its upper extremity, to which is fixed a small bougie. Within the stem, which is hollow, there exists a central rod, which supports the blunt branch B, the blade A being connected with the hollow stem. When the instrument is introduced, the knife is protected by the blunt branch B, which lies parallel to it; but after passing it beyond the stricture, the blade is set free by turning the rod which supports B, and the section is produced by drawing back the instrument.

We also meet with many ingenious contrivances for dilating

Fig. 1.

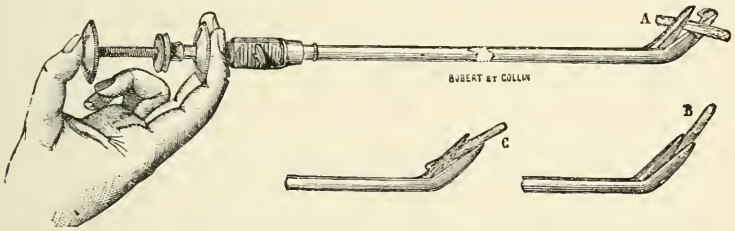


A, blade; B, B′, blunt branch; C, curve of instrument; D, bougie; E, top of rod connected with B; F, handle of stem connected with A; G, screw which fixes the instrument.

the urethra instead of dividing the stricture. Among these, we recommend to the attention of your readers Dr. Voillemier's modification of the well-known instrument of Holt.

Among the various kinds of forceps used for the purpose of extracting foreign bodies from the bladder, we particularly noticed the new model invented by M. Robert. The extremities of its branches offer a conical shape, and the outer branch terminates in a sort of hook, so that the foreign body, when caught in this forceps, naturally falls into the axis of the instrument, and is readily extracted.

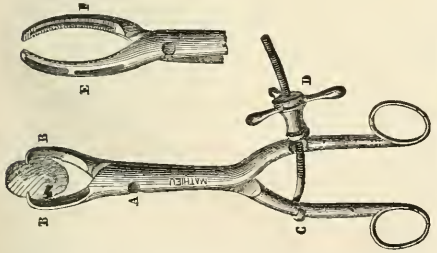
Fig. 2.



A shows the position of the foreign body when seized in the bladder; C shows the rotatory movement which brings it into the axis of the instrument, as exhibited in B.

Several French Surgeons have lately endeavoured to combine the advantages of lithotomy with those of lithotripsy by introducing, through a narrow aperture in the perinæum, an instrument which breaks the calculus into several minute fragments. With a view to this purpose, Professor Nélaton has invented the forceps of which we subjoin a figure. This instrument has been successfully employed on various occasions; it can be introduced into an opening one-twelfth of an inch wide.

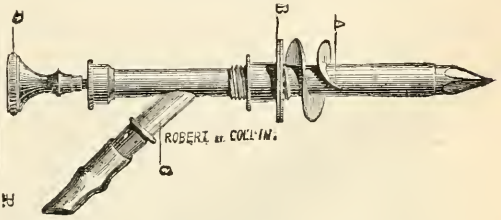
Fig. 3.



A, joint of the instrument; B, B, branches; C, hook which enables the operator to exert a strong pressure with D, the screw. F, F exhibit a different disposition of the branches.

Professor Nélaton has also invented a new trocar for the operation of ovariotomy. The canula of this instrument is provided with a flat spiral groove, A. After puncturing the cyst (the abdomen having been opened), the instrument is screwed, as it were, into its cavity. When the membrane of the cyst has passed over the groove, A, the flat surface, B, is pressed down upon it; and the trocar being then withdrawn, the liquid escapes through the tube C, without any danger of an effusion into the peritoneum.

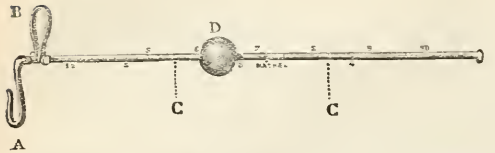
Fig. 4.



An ingenious little instrument has been invented by two *internes* of the Paris Hospitals, MM. Odier and Blache, for the purpose of weighing infants immediately after their birth. It is merely an adaptation of the Roman balance. The lever

breaks up into three equal lengths, so that the whole apparatus can easily be conveyed in the accoucheur's pocket.

Fig. 5.



A, hook to which the infant is suspended; B, loop which supports the balance; C, C, divisions of the lever, which allow it to separate into three equal parts; D, movable hollow ball, which acts as a weight.

We must conclude here our brief survey of French Surgical industry. However interesting the subject, we cannot dwell upon it at greater length. Other and equally important parts of the Exhibition claim our attention, and we will now proceed to examine a totally different department, the description of which will occupy our next letter.

BIRMINGHAM.

June.

A special meeting of the governors and subscribers of the Lying-in Hospital was held on the 25th inst., in the Town-hall, for the purpose of discussing the advisability of converting the Hospital into a maternity charity, after the model of the London Maternity, the leading feature of which is the employment of midwives under the immediate control of the honorary Surgeons. The investigation which has been going on discloses the fact that the number of patients who have been relieved is not sufficiently large to justify the considerable outlay of money which has been incurred—in other words, that more good ought to have been effected from the comparatively large income which the Hospital enjoys. It appears from the report that the institution is capable of accommodating a large number of patients, larger even than the number of beds now existing in the building; for the 13 beds which are at present occupied there is 26,000 cubic feet of space, whereas 1000 cubic feet to a bed is ample in an institution of this kind. Although there is room enough to accommodate treble the number of patients, the committee did not recommend this, fearing the outbreak of puerperal fever, which is so liable to occur where lying-in women are crowded together. After much discussion, a committee was appointed to prepare a code of laws and regulations necessary for carrying out the proposed changes, the same to be submitted to the governors at a future meeting. I mentioned in a former letter that there had been an unseemly "squabble" at this Hospital, which was to be succeeded by a severe scrutiny. This has now taken place, and to which, I think, may be attributed this important and valuable radical change in its constitution.

An important accession has been made to the Medical staff of Professors of the Queen's College. Mr. Oliver Pemberton, Surgeon to the General Hospital, has been appointed Professor of Surgery in conjunction with Mr. Sands Cox. Mr. Pemberton is well known as an able Surgeon and lecturer, and he will add lustre to the College.

The annual general meeting of the British Medical Association was held on the 14th at the Hen and Chickens Hotel. The President, Mr. Berry, delivered the address. Dr. Heslop, as he had previously given notice, moved, "That in the opinion of this branch the present rate of remuneration to Medical officers of work clubs, friendly and benefit societies, and similar associations is inadequate, and, being so, is detrimental to the interests of the Medical Profession and to the welfare of the members of such associations. Mr. Clayton seconded the resolution, and it was carried unanimously. Dr. Heslop, as was anticipated, made a clever speech on the subject, but I am afraid it will have no effect until there is a more genuine *entente cordiale* in all ranks of the Profession. Whilst alluding to the affairs of this Association, I may state that my attention has been called to the system by which the annual subscriptions are collected from its members. My informant describes the process as a summary and vexatious one. The mean process of *stopping* your paper is resorted to until your subscription is paid, and when it is paid a whole bundle of obsolete publications is thrust upon you.

Queen's College, under its new *regime*, is the chief topic of conversation in Professional circles. It is predicted that the new lease of life which has been granted it will be signalised by the revival of its early prestige, provided that its chairs are suitably and judiciously filled, and the outcry of "*aut Cæsar aut nullus*" is an exclamation of the past. As to its connexion with the Queen's Hospital, it will maintain it so far as clinical instruction to its students is concerned, for there is a clause in the new charter which provides that the Queen's Hospital shall permanently retain its distinctive character as a clinical Hospital.

Whenever Poor-law Doctors have the pluck to speak out in condemnation of what they consider wrong, I think they deserve a meed of praise. I will, therefore, accord it to Dr. Robinson, the indefatigable Surgeon of the Birmingham Workhouse. He has drawn the attention of the guardians to the port wine which has been supplied them by the contractor; he denounces it as "rubbish," and as totally unfit to be given to the patients as a stimulant. How many other such evils could be pointed out in the administration of Poor-law relief, if courage and a sense of justice were inbred in those who have authority!

The hotel at Sutton, which was to have been converted into a sanatorium, as stated by the Birmingham correspondent of the *Lancet*, is still to remain as it was. The inhabitants of that healthy little town decidedly object to its being converted into a station for convalescents.

Owing to the "Murphy riots," of which there have been ample details in the London papers, our Hospitals are filled with patients with broken heads and contused limbs, sustained in the *fracas*, but up to the present time no deaths have occurred.

GENERAL CORRESPONDENCE.

THE ELECTION TO THE COUNCIL OF THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is interesting to compare the result of the recent election at the College of Surgeons with your article of May 4 last, and to see how completely the *principle* you have there and previously urged has been acted upon by the Fellows. You expressed your "strong and confirmed opinion that re-election should be reserved as a rare—a very rare—reward for conspicuous merit or distinguished service," and you showed that Messrs. Skey, Kiernan, and Wormald might retire with honour. By an overwhelming majority the Fellows have supported your view of re-election, and the principle of real and not nominal retirement. With regard to the new candidates, you showed that "Mr. Holden could not be elected without passing over Mr. Prescott Hewett, Mr. Spencer Smith, Mr. Birkett, Mr. Simon, Mr. Bowman, Mr. Spencer Wells, Mr. Wharton Jones, and Mr. Humphry, of Cambridge." And, although the Fellows by examination made a strong effort and an active canvass for Mr. Holden, the Fellows again acted upon the feeling you so well expressed, and did not allow Mr. Holden to pass over Messrs. Hewett, Smith, and Birkett. It is curious to compare your own arguments—based upon just and intelligible principles—with the inconsistent suggestions of the *Lancet* and the *British Medical Journal*. You gave the numbers of the voters for each candidate last week; allow me to add some additional information as to the plumpers and the triple and double voting. This may be shown by the following table:—

	Triple Votes.		
Hewett, Birkett, Holden	58	Wormald, Birkett, Holden	3
Hewett, Smith, Birkett	39	Wormald, Smith, Holden	2
Hewett, Smith, Holden	24	Skey, Birkett, Holden	2
Skey, Wormald, Kiernan	17	Kiernan, Hewett, Holden	1
Skey, Hewett, Smith	12	Kiernan, Hewett, Birkett	1
Skey, Hewett, Birkett	8	Kiernan, Hewett, Smith	1
Smith, Birkett, Holden	8	Skey, Smith, Birkett	1
Skey, Wormald, Holden	8	Skey, Wormald, Smith	1
Skey, Smith, Holden	7	Skey, Kiernan, Hewett	1
Skey, Hewett, Holden	5	Skey, Kiernan, Holden	1
Skey, Wormald, Hewett	5	Skey, Wormald, Birkett	1
Skey, Kiernan, Smith	5	Wormald, Hewett, Smith	1
Wormald, Hewett, Holden	3	Wormald, Smith, Birkett	1
Wormald, Hewett, Birkett	3	Wormald, Kiernan, Hewett	1

Double Votes.

Hewett, Smith	10	Hewett, Holden	2
Smith, Holden	6	Wormald, Smith	1
Skey, Smith	6	Skey, Holden	1
Hewett, Birkett	4	Wormald, Holden	1
Birkett, Holden	3	Smith, Birkett	1

Single Votes.

Smith	15	Birkett	6
Hewett	9	Skey	3
Wormald	6	Holden	1

It is curious that the trio supported by the *British Medical Journal*—Messrs. Skey, Smith, and Birkett—received the vote of only one Fellow; probably the writer who exposed Mr. Skey to the humiliation of an appeal *ad misericordiam*, while he made a very ill-concealed attempt to get Mr. Hewett passed over in favour of Messrs. Smith and Birkett. The attempt of the *Lancet* to defeat Mr. Smith by bringing up the Fellows by examination to the support of Mr. Holden was a little more successful, but was so evidently unfair that it met with the defeat it deserved. The Fellows who are seniors on the list to all the Fellows by examination can only be passed over by their juniors without insult, when one of those juniors is a man of acknowledged pre-eminence. Sir William Fergusson's election over his seniors was universally felt to be a compliment due to his position, and was cheerfully supported by the very men above him on the list. And if the Fellows by examination had brought forward some candidate so manifestly superior in merit or position to those of his seniors who were candidates, and to those seniors who are patiently biding their time, doubtless a just claim would have met with general support. But when a junior was put forward whose election would have been insulting not only to such of his seniors as were candidates, but to such seniors as Simon, Bowman, Spencer Wells, Wharton Jones, and Humphry, who wait their turn to come forward, and who can only be passed over, without injury to the College and a slight to themselves, by juniors who can show that they have done more for the science and practice of Surgery, the result was a deserved defeat. It is to be hoped that the attempt will not be repeated. It is unwise to set one class of Fellows of the College against another class. It would be far better to unite all classes cordially together in the effort to remove the faults which interfere with the complete utility of the College to the Profession and the Nation. Let the Council and the Court of Examiners be made up of the very best men to be found in the College—whether old or young, whether honorary Fellows, Fellows by examination, or Fellows by election. Let re-election of retiring members be a very rare reward for distinguished service. Let retirement be the rule for men who, having served with honour, can still make way for younger men; and let these men succeed in their turn, unless they have done something to deserve condemnation, or there is some junior whose merits are so superior that his claims are generally acknowledged, and are independent of class support or of personal canvass. I am, &c.

July 6. A Voter for Hewett, Smith, and Birkett.

ACTON *v.* THE MIDLAND RAILWAY.

Letter from Dr. Tindal Robertson.

[To the Editor of the Medical Times and Gazette.]

Sir,—I regret that my evidence in the above case was not reported *verbatim*, as even the *Times*, which contains the nearest approximation to a correct report, makes me say that "I assured the plaintiff that he would be well in a fortnight." So far from making this statement, my exact words were—"I believe that you only require change of air, and that you will be well when you return." But I added—and this is the point upon which I contend my entire *bona fides* to the patient was manifest—"I particularly requested the plaintiff, if he was not well when he returned, to call upon me again." The very act of his thus consulting me again would have sufficed to clear away all the difficulties which have since happened. But he never did call after his return. I met him occasionally, and he never mentioned the subject. He brought his brother to consult me two years after, and still did not allude to it; and it was only after a lapse of nearly four years, when Dr. Marsh, his Medical man, requested me to see him in consultation, and alluded to the railway company, that I had the slightest information or suspicion that perfect recovery had not occurred.

With the opinion which you have long expressed, that the settlement of railway cases by Medical men is unadvisable, I entirely concur; and though, on first becoming a railway officer, I followed the example of my predecessor in the practice, I long ago became convinced of its impropriety, and abandoned it entirely.

Acton's case is one which was tried less upon its own merits than upon the merits, or rather the demerits, of the above system; and it is in this and in some other respects one of such importance, not only to Medical men, but to Medical officers of railways especially, that it is my intention, if possible, to bring a full report of it before the Dublin meeting of the British Medical Association. I am, &c.

Nottingham, July 3. Wm. Tindal Robertson, M.D.

VACCINATION BILL.

Letter from Dr. Septimus Gibbon.

[To the Editor of the Medical Times and Gazette.]

Sir,—The urgency of this subject must be my apology for again obtruding it on the notice of your readers. I find that many public vaccinators and private Practitioners are securely relying on the opinion that the penal and compulsory clauses are too unjust and tyrannical ever to be put in force against themselves. This is a delusion, for, according to the accompanying clause, which was inserted just before the Bill passed the House of Commons, boards of guardians will have no option—they must prosecute every defaulter. Had it not been made compulsory, I believe some boards of guardians would have been only too happy to prosecute their Doctors. If you will print this clause, it may serve to expose in time the false security on which so much reliance is placed. The Parliamentary Committee have tried assiduously, but in vain, to get these prosecutions and penalties for the non-performance of unpaid work by Medical Practitioners abolished, first by Lord Robert Montagu, secondly by the House of Commons. His lordship candidly told us they were of the essence of the Bill.

The House of Lords is open to an appeal from the Profession, and I have a very confident belief that if the Profession will only make known its opinion on this mischievous and iniquitous piece of legislation, that they will, in this case at least, adopt the equitable principle of "no pay, no penalty."

I am, etc.

Septimus Gibbon, M.B. Cantab.

13, Finsbury-square, E.C., July 9.

Clause 27.—"The registrar of each district shall, within one week after the first day of January and the first day of July in each year, make a list of all cases in which certificates of vaccination have not been duly received by him during the last preceding half-year, and shall submit the same to the next meeting of the guardians of the Union or parish wherein he acts, and the said guardians shall forthwith make inquiry into the circumstances of the cases contained in the list, and, if they find that the provisions of the Act have been neglected, shall cause proceedings to be taken against the persons in default."

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

Monday, July 1.

Dr. Jenner, F.R.S., President, in the Chair.

A paper, by Dr. E. D. Mapother, was read on the

MALIGNANT PURPLE FEVER EPIDEMIC IN IRELAND.

The first case of this epidemic, according to the author, occurred in Dublin on March 18, 1866. The patient was a Medical student, aged 19 years. *Malaise*, rapidly followed by vomiting and prostration, marked the onset of the disease. In little more than twelve hours, purple blotches appeared on the skin, stupor quickly supervened, and he died after twenty-six hours' illness. Other cases followed, and to the close of the week, ending June 29, sixty-three fatal instances were registered in Dublin. The disease has been termed "black death" from the appalling rapidity of its course and the discoloration of skin; but Dr. Mapother holds this term to be highly

inappropriate, as "black death" is one of the names used to designate the bubo plague of the 14th and 17th centuries. It has been designated also "black fever," "cerebro-spinal meningitis," "*méningite foudroyante*," and "malignant purpuric fever." To the author the word "virulent" seems preferable, as it pointedly indicates the blood poisoning, and the word "purple" is similar, though less technical, to "purpuric." Many deaths, in the London bills of mortality, were noted as "spotted fever and purples" down to the 17th century. "Petechial and spotted fever," the terms employed by American writers, are not distinct enough from ordinary typhus. As "pernicious fever," the disease was perhaps identified by the older French and Italian Physicians, and the "febris scorbutica" of Sennertus (1654) was a similar if not an identical malady. The author suggested that if it shall be determined that the disease is a lesion of the nervous systems, ganglionic or cerebro-spinal, the term "neuro-purpuric fever" would be descriptive. Dr. Mapother described two types of the disease. In the graver, life is rapidly extinguished as if by a blood-poison; in the milder, the symptoms are those of inflammation of the cerebro-spinal axis, or its membranes. Dr. Stokes regards these latter phenomena as secondary to the essential disease, and they appear if the patient lives long enough for their development. In the milder form the cases approximate closely to the form of the disease (cerebro-spinal meningitis) observed in Prussia in 1865. It is a noteworthy fact that during the past eighteen months a very fatal purpuric disease has been rife among pigs in Dublin. Dr. Mapother thinks that there is much resemblance between this epizootic and human purple fever. Mr. Hugh Ferguson, the Veterinary Officer of the Privy Council for Ireland, states that "purples" among pigs was very prevalent during 1846, when cerebro-spinal meningitis was epidemic at Dublin and Belfast. Dr. Mapother referred briefly to the histories of previous epidemics of cerebro-spinal meningitis on the Continent and in the United States, and concluded with a few observations on the nature of the disease. The rapid form, with purple blotches, and without cerebro-spinal symptoms, is, he thinks, certainly a zymotic or blood-poisoned malady; but that the other type, characterised by positive signs of cerebro-spinal lesion without the blotches, is due to the same proximate cause he was not convinced. On the other hand, no inflammatory lesion of any organ whatever could be so acute as to kill in five hours. In his last weekly report Dr. Farr has given the leaven of an important question — namely, "Is the purple fever only typhus seizing the scorbutic?" The high price and recent scarcity of potatoes, and increase of scorbutic and purpuric affections in England and Ireland, and the period of occurrence of purpuric fever, would tend to induce an affirmative answer. The occurrence of the disease among the well-to-do is an objection more apparent than real. Dr. Mapother stated a case of purpuric fever, the patient being a cook in a large establishment. It was proved that she persistently avoided vegetable food. Scurvy is, of all maladies, the most asthenic, and one may well believe that a sufferer from it receiving typhus poison would sink at once, no time being afforded for elimination of the poison, as we see occasionally in virulent cases of scarlatina. If, as Dr. Murchison has contended, epidemic cerebro-spinal meningitis is but a form of typhus, it is not surprising that in Ireland it should be attended more frequently by cutaneous blotches, seeing that petechiæ are much more frequent in the typhus of Ireland than elsewhere. The faulty diet of the poor may account for the greater frequency of this blood condition. As to treatment, Dr. Mapother said that if there be vaso-motor depression, ergot in simple doses, belladonna in grain doses every second hour, and perhaps cantharides, are worth a trial, as they are contrary in physiological action. Alcohol and digestible nutrients, such as a solution of beef in dilute hydrochloric acid, might give aid, and the hot air or cotton-bath might tend towards cutaneous elimination. As to prevention, although Dr. Mapother saw no reason to believe that the disease was communicable, he directed disinfection of rooms and clothes, and isolation of the patient as much as possible.

A paper, by Dr. Jeffrey A. Marston, was read on

THE EPIDEMIC IN IRELAND AS IT OCCURRED AMONG THE TROOPS. (FROM THE RECORDS OF THE ARMY MEDICAL DEPARTMENT.)

Dr. Marston arranged his paper in two divisions. The first included a short Medical history of the occurrences in their chronological order; the second took note, from a clinical point of view, of the morbid phenomena presented by the cases respectively. The disease had been variously named "pestis," "malignant typhus," "cerebro-spinal typhus," "malignant purpuric fever," etc. If the disease be essentially the same, although a variety of typhus, it is certainly not contagious as typhus. The facts, moreover, do not lend support to the supposition that it is a form of typhus. In the 22nd Regiment, typhus had appeared among the men after the appearance of cerebro-spinal meningitis. The disease was observed in two forms:—1. The worst and most speedily fatal cases presented symptoms expressive of a profound blood-poisoning. The imperfect collapse, followed by a torpor and insensibility which speedily ran into coma; the paralysis of the pulmonary function; and the rapid appearance, as well as the number and extent, of the spots—these things left no room for doubt as to the formidable nature of the malady, and the inadequacy of a cerebro-spinal meningitis to explain all its features. 2. In cases in which the symptoms of a cerebro-spinal inflammation were the most prominent, delirium and other manifestations of a disordered intellect were neither so common nor of such grave import as those symptoms referable to the spinal system—the convulsion, th retraction of the head, the spastic contraction of muscles, etc —and yet some of the best marked of these cases recovered. It is to be remarked also that there was no necessary relation between the occurrence, the number, or the extent of the spots upon the skin, and the amount of intra-cranial and intra-spinal mischief. In these cases, which were very rapidly fatal, it may be that the morbid anatomist could not expect to find the same traces of diseased or inflammatory action as in those less speedily fatal; yet a patient may perish after fourteen hours' illness, and indubitable marks of inflammatory action may be present in the meninges of the brain and spinal cord. In none of the fatal cases examined were these parts normal: there was excess of serous fluid, vascular congestion, or actual extravasation of blood present; and a careful analysis of the cases leads to the inference that it is to the presence of those fluids about the respiratory nerve-centres that the imperfect collapse and pulmonary distress are due. In very few cases indeed was there any manifestation of gradual deterioration of the health of those attacked; on the contrary, the suddenness of the seizure and the rapid progress of the case were generally remarked upon by those who recorded the cases. In the majority a marked functional disturbance of the gastro-enteric system was evidenced in the vomiting and purging which ushered in the graver symptoms of the disorder. The perspiration was fonnd to be acid to litmus in one case. The urine was of light colour, of an average specific gravity of 1010, and non-albuminous in all the cases in which this was tested.

ON THE RECENT OUTBREAK OF "FEBRIS NIGRA" IN DUBLIN. BY DR. ROBT. D. LYONS.

Dr. Lyons communicated the notes of several cases, and exhibited specimens of the spinal cord from two cases. He proposes to designate the disease "*febris nigra*." He believes that the malady is allied to yellow fever, cholera, in a certain sense to typhus, and to other diseases in which, without necessary physical lesion, a profound prostrating effect is exercised on the nervous centres, and through them on the blood. As to the causation of the disease, he referred to the general sanitary state of Dublin, which he described as bad as bad can be. When cases of this disease occurred in 1866, Dr. Lyons called the attention of the Lord-Lieutenant and local authorities to them as an indication of a marked change in the epidemic constitution, and predicted an epidemic, possibly of cholera, which came in due time. This year he made a similar prediction, and he remarked that at least one case of cholera had already occurred in Dublin.

Dr. Edwards Crisp related the circumstances attending a case of purpuric fever which had occurred in Chelsea on June 16. There was no doubt it was a case identical in nature with the cases described by Drs. Mapother, Marston, and Lyons. He dwelt upon the purpuric affection observed in pigs in Dublin, and offered some suggestions for the experimental study of both the human and the brute purpuric disorder.

Mr. Heather Bigg briefly stated certain facts respecting a rapidly fatal case of purpuric disorder, which had occurred on the 26th inst. in Bethnal-green, the circumstances having been mentioned to him in a recent conversation with Mr. Humphrey, the coroner.

Dr. J. Burdon Sanderson expressed some surprise at the

suggestion of Dr. Mapother that there might be two diseases confounded together in the recent outbreak in Dublin—a malignant typhus and cerebro-spinal arachnitis. Both forms of disorder insensibly passed the one into the other; the analogy of the virulent form with typhus had no existence in fact, either as to the course of the disease, eruption, or post-mortem appearances. The conclusion rather was that we had to do with different grades of the same disease. He expressed regret at the paucity of post-mortem examinations, but thought that the general symptoms afforded strong grounds for the belief that the disease was identical with the cerebro-spinal meningitis which had been observed in Prussia in 1865. He read a note by Dr. Stokes descriptive of the different forms of the disease which had occurred in Dublin.

Dr. Marston remarked that the opinion that the malady might be typhus in a scurvy-affected subject clashed altogether with experience. Typhus in the scurvy-stricken had been sufficiently observed in the Crimean war, but no such symptoms had been manifested as were observed in the purpuric fever in Dublin. There was an entire absence of evidence to attach any of the phenomena of the disease to scurvy, and the opportunity for ascertaining the fact had been largely furnished during the late war in the United States. The question was one, however, not to be lost sight of.

Dr. Camps pointed out the dissimilarity of the disease from the specific fevers with which we are acquainted.

Dr. A. P. Stewart, as showing the difference of typhus from the malady in Dublin, remarked that the latter carried off large numbers of well-to-do people. More than one-third of the cases in Dublin, he observed, occurred in the better parts of the city. In America, also, the well-to-do suffered equally perhaps with the ill-to-do. No proper typhus eruption had, moreover, been noted. No form of disease like the Dublin disease had been observed in scurvy, and in diseases affecting persons suffering from scurvy no like series of symptoms had been recorded. Our familiarity with the latter disease, under many and varied circumstances, would lead to the inference that the purpuric spots in the Dublin disease owned some other origin. Dr. Stewart had seen within the last two years in many cases of disease, and especially in rheumatism, copious, dark, purpuric blotches. He had noticed the same phenomena in 1858. During the last three or four years, in fact, he had observed a purpuric tendency in several maladies, and he was inclined to think that in the Dublin affection the purpuric spots were not characteristic of the disease, while the lesion of the cerebro-spinal centres was. In the majority of the cases he had read, there were indications of morbid action in those centres.

Dr. Yandall (United States) remarked that, although he had not had an opportunity of observing cerebro-spinal meningitis, the "spotted fever" of some American authors, he had during the war seen thousands of cases of scurvy among the troops at Corinth. Nothing like "spotted fever" came under his notice, although the disease so called prevailed in other localities, and especially among the Federal forces. Very many men were lost from scorbutic diarrhœa. He gave some details, also, of epizootics in Tennessee.

Dr. Bowen referred to the term "black death," which had been adopted by some to designate the malady in Dublin, and observed that it was a singular coincidence that true plague was reported to have broken out among certain of the tribes on the banks of the Euphrates.

Dr. Trader (United States) had seen several sporadic cases of cerebro-spinal meningitis, but had never had the opportunity of witnessing the disease in an epidemic form. He had been led to form the opinion that the petechial spots were not characteristic of, although frequently accompanying, the disease.

Dr. Jenner remarked, as regards typhus and the Dublin disease, that while the latter affected children much, and was very fatal to them, children rarely suffered from typhus, and the latter disease still more rarely killed them. The difference was startling. Again, in typhus a deposit of lymph about the brain was so rare an occurrence that he had never seen a case in which it occurred. Such a deposit appeared to be characteristic of the fully developed Dublin disease. The latter disease, in fact, taking it to be a disease *sui generis*, had a close analogy to all acute specific diseases. It will kill suddenly; so will small-pox and scarlet fever; typhus rarely. And when the last-named diseases kill suddenly, as in the Dublin disease, they exhibit much petechial eruption, purpuric spots and blotches, and even hæmorrhages from the nose, mouth, and bowels. If the blood-poison kills the patient at once, the special lesion of the disease is masked or undeveloped. If the blood-poison does not kill at the outset, the characteristic lesion is developed, and, should the disease in the end prove fatal, kills the patient. The names which had been given to the Dublin disease since its appearance were gratifying, so far as they indicated the activity of thought with which this as yet ill-comprehended malady was regarded. The name by which the disease was best known (cerebro-spinal meningitis) was bad, but the new names proposed were worse. "Purple fever," "purpuric fever," were names better applicable to certain forms of continued fever, and which it would be impossible to limit to the disease under consideration. The terms "malignant purpuric fever," and "neuro-purpuric fever," exaggerated the erroneousness of the previous terms. "Cerebro-spinal typhus" was a still worse term, as it was undesirable to attach a definitely understood word like "typhus" to a disease which was imperfectly known, and which had certainly little in common with typhus. "Black fever" was an equally unsatisfactory name.

THE WEATHER AND THE PUBLIC HEALTH.

By T. L. PLANT, F.M.S., Birmingham.

April sustained its character this year. Rain fell on nearly every day in that month. The severe gales in the second and third week are unprecedented for April in these records. The first eleven days of May were remarkably hot. May 8, 82° in the shade. Mean of week ending 11th, 61½°—eleven degrees above the average. As this month advanced we had a succession of strong north-easterly winds and cold nights, but no frost until the morning of the 22nd, when we went into mid-winter weather. That day was remarkable for frost and frequent snowstorms from morning till night. On the 23rd and 25th seven and six degrees of frost respectively. There was nothing in previous years in the present century to equal it in severity in the fourth week of May. The range of temperature between May 8 and 23 was upwards of 50°. It is a significant fact that hitherto all excessive heat in the early part of May has been followed by cold weather in the same month, as in 1807, 1820, 1828, 1833, 1841, 1848, 1864, and 1867. The last six days of May were very hot. June opened with great heat and heavy rains. The weather was remarkably erratic this month. June 10, 115° in the sun; June 11, 82° in shade; June 14, 41°; June 11, 9 a.m., 73° in shade; June 17, 9 a.m., 49° only.

Polar winds prevailed from the 12th to the end of the month. 26th, 27th, and 28th, barometer 30½ inches and 30¾ inches. The mean temperature in each of the three months when compared with the average in 80 years was as follows:—April 2° in excess, May 0·9° in excess, and June 0·3° in deficit. Rainfall in the three months 6·19 inches, being 0·19 inch in excess. In April and May the barometrical values were 0·23 inch and 0·09 inch below the average respectively, and in June 0·12 inch above the average.

Spring Season, 1867.

Table, from Nineteen Years' Observations, showing, in parallel columns, the Earliest, the Latest, and the Average Dates on which the Foliage or Blossom of each of the Trees therein named has commenced expanding, compared with the same observations in 1867.

	Earliest.	Latest.	Average.	1867.
Balsam poplar (*Populus balsamifera*)	March 6.	April 19.	March 31.	April 15.
Larch (*Abies larix*)	March 21.	April 14.	April 2.	April 14.
Horse chestnut (*Æsculus Hippocastanum*)	March 17.	April 19.	April 8.	April 19.
Sycamore (*Acer Pseudo-platanus*)	March 28.	April 23.	April 14.	April 25.
Damson blossom (*Prunus domestica*)	March 28.	May 13.	April 12.	April 17.
Lime (*Tilia europæa*)	April 6.	May 2.	April 21.	April 30.
Beech (*Fagus sylvatica*)	April 19.	May 7.	April 23.	May 1.
Spanish chestnut (*Castanea resca*)	April 20.	May 20.	May 9.	May 4.
Oak (*Quercus robur*)	April 10.	May 26.	May 9.	May 3.
Ash (*Fraxinus excelsior*)	May 13.	June 14.	May 30.	May 16.
Mulberry (*Morus nigra*)	May 12.	June 23.	June 1.	May 16.

In the beginning of April, nature showed no signs of animation; everything bore a wintery aspect. The severe weather in March, with the frequent heavy depositions of snow partially melted in the daytime, but congealed by the intense frost every night, pressed hard on the rose trees and laurels which had been prematurely brought forward by the fine warm weather in February. The check was so great that many of these trees were killed. There was not the slightest dawn of spring until the second week in April. The poplar and the larch did not come into leaf till the middle of the month. The damson was not in blossom before the third week; and it was the last week of April ere the sycamore expanded its leaves. This was later than ever before known.

But the progress of nature then made such rapid strides, that everything burst into active life as if by magic. The oak was in full leaf early in May, and the ash and the mulberry expanded their foliage by the middle of the same month, or at least a fortnight earlier than their average dates. The short space of one month only sufficed to accomplish what usually takes from eight to ten weeks in the development of these beautiful works of nature. The splendour of the pear, damson, and apple blossoms was, under the influence of bright sunny skies with alternate genial rains, so quickly followed by the formation of their fruits, firmly knitted and unchecked by frost, that we forgot for a time the precarious character of our climate.

But in the latter portion of May we were once more assured of its vicissitudes. The north-easterly winds, which became the order of the day and night, brought intense frost: the progress of the spring was retarded by the long persistence of the harsh polar currents and low temperature. The wheat and barley and other cereals looked sickly and withered; they were starved by the cold nights. But the great heat at the end of May and beginning of June, with plenty of rain, refreshed the pastures and roots. The cereals recovered from their unhealthy appearance, and there was every promise of excellent and abundant crops. Still, the weather was not favourable in June; temperature varied considerably; there was great absence of sun; rain was of too frequent occurrence. The crops of grass were heavy, but in the midlands we had passed the middle of the month before hay-making commenced, and even then under the non-auspicious circumstances of either rain or threatening skies. Dull cloudy weather kept the wheat plant from coming into ear till the end of June.

The most productive harvests have been when hot weather of appreciable duration did not set in until after the summer solstice. In 1859, 1863, and 1864, there was no summer weather before July, and excellent harvests followed. If great heat prevails in June, as in 1826, 1846, and 1858, the grain does not arrive at its proper growth. The ripening is premature; the yield then becomes small.

What hot weather we had in May and June was of short duration. With twelve months unprecedented in these annals for excessive rainfall, there is abundance of moisture in the ground for the roots and pastures on most lands for some time to come. Wheat wants no more rain till harvest. This year the cereal plants are not close on the fields, but the ears are large and promise to be well filled. There is every reason to expect, in the event of a fine hot July and August, that we shall be blessed with a good and bountiful harvest of every description of grain, roots—indeed, of the earth's produce generally.

Before commenting on the public health for the last three months, I wish to impress the fact that it is only when the mean temperature is below 40° in the absence of cholera and fever, the death-rate is seriously affected. Hence it is that frost or winter interferes with our vital statistics. The following table will demonstrate this fact:—

Annual Mortality per 1000 *of Population, Twelve Months ending* June 29, 1867. *(London, Birmingham, Bristol, Leeds, Manchester, Liverpool, Newcastle-on-Tyne, Sheffield, Salford, and Hull.)*

1866.	Mean Temperature.	Death-rate.	
July ..	61°	28·5	Great mortality in Liverpool and London from cholera.
August ..	583°	30·3	
September	54½°	28·1	
October ..	51°	23·9	
November	42¾°	26·5	
December	41°	28·0	Much fever in Newcastle-on-Tyne and other towns.
1867.			
January ..	32¾°	32·4	High death-rate from intense cold.
February .	43°	28·4	Severe frost in January, hence great mortality first half of February.
March ..	36½°	28·1	High death-rate in March in consequence of the severe weather.
April ..	48¾°	24·5	
May ..	53¾°	23·9	
June ..	58¾°	22·5	

The high rate of mortality in January was owing to the intense frost. Even the cholera, which carried off so many thousands of human lives in Liverpool and London in July, August, and September last, was not so destructive as to bring up the general death-rate of the ten large towns to the dreary standard.

The polar currents in the spring months are always very trying. After the tropical heat early in May, the severe weather in the third and fourth week, when the searching north-east winds blew with great force, did not, however, materially disturb the public health. At least 15 per cent. of the mortality in February was in consequence of the cold in January. The moderate temperature in April had the effect of reducing the death-rate in that month, which was considerable in March in consequence of the weather; and, notwithstanding the vicissitudes of temperature in May, the ranges were compatible with our endurance so far that the mortality was lower than at any other period of the year, June excepted. Never was the death-rate so low since registration began as in June, 1867. We had extreme heat at different periods of the month; at other times cold winds and low temperature ruled in our sea-girt island; sometimes a range of 40° in two or three days. Whatever may be the atmospheric changes, the mortality is not affected so long as the temperature keeps within the limits above defined.

The public health for the quarter just ended has been very satisfactory. In the corresponding quarter of 1866, Liverpool returned an annual death-rate of thirty-four per thousand in one week, thirty-five per thousand each week in eight weeks, and forty per thousand each week in four weeks. There was no cholera in Liverpool until July last year, excepting isolated cases. In the quarter now terminated the annual rate of mortality in Liverpool did not reach thirty per thousand in any week.

There is a decided improvement in the health of all the ten large towns, with the exception of the borough of Newcastle-on-Tyne, to which place I shall refer before closing this inquiry. The average death-rate in Edinburgh is about 25 per cent. more than in Hull, London, Bristol, and Birmingham. The miserable abodes of the people in the old town are much to be deplored. The system of dividing the houses into flats, each tier being occupied by a separate family, precludes a proper mode of drainage and ventilation, so essential for the promotion of health, and should be condemned and abolished.

Vital Statistics.—Death-rate per Thousand of Population.

	Per Annum. Quarter ending June 29, 1867.	Per Annum. Quarter ending June 30, 1866.
London	20·4	22·5
Liverpool	26·9	37·9
Manchester	27·6	30·2
Birmingham	19·8	24·5
Leeds	25·8	33·6
Sheffield	22·2	29·7
Bristol	21·9	23·3
Newcastle-on-Tyne	27·3	28·6
Salford	25·0	30·4
Hull	22·3	24·7

Death-rate of the Ten large Towns irrespective of Classification.

Per Annum. 1866—Quarter ending June 30.	Per Annum. 1867—Quarter ending June 29.
29·1	23·7

Decrease in 1867, 5·4.

The mortality in Newcastle-on-Tyne is very large. No wonder at it. The deficiencies in ventilation, drainage, water-supply, and privy accommodation in this dilapidated, overcrowded, and ill-constructed old town, compel the structural alteration, wherever practicable, of such places, and a large reduction in the number of tenantes, so as to bring them within the contingencies needful for the maintenance of health. New thoroughfares should be opened so as to admit light and ventilation, and proper and sufficient conveniences for the observance of sanitary law.

Of 55,366 people, or nearly one-half the population, within the borough of Newcastle on-Tyne, whose dwellings were inspected in the beginning of this year, one-eighth of these houses had not, at the date of inspection, the means of good ventilation. One-eighth of the houses were without even water supply, either from the water company or other legitimate sources. One-fifth of the houses were without even privy accommodation. The drainage of two-thirds of the houses only was good; and of the remaining third, more than a third, or an eighth of the whole number, were without any drainage. A member of the town council of Newcastle-on-Tyne, in a letter to me on this vital question, says:—"It is our intention to begin the experiment of building dwellings for the poor at once, as, till we provide accommodation for the people, we cannot turn them out of their miserable hovels."

In towns, as London, Birmingham, and Liverpool, where there are active Medical officers, manufacturers for non-consumption of smoke, also persons responsible for bad drains, foul and neglected ash-pits, or offences against the Lodging-house Act, likewise purveyors of meat or fish, for exposing such for sale in a decomposed state and unfit for human food, are summoned before the public court; they are dispirited and fined; their names and offences are published in the newspapers for the information and protection of the public, and in order to deter others, besides themselves, from offending in the same manner. By these precautions the health of places having efficient officers has been, and will continue to be, improved.

London, with its three millions of people, is one of the healthiest of our large towns. The drainage is good; the water is excellent; overcrowding prevented so far as practicable. Nothing is permitted in any street within the limits of the metropolis, nor in any yard, court, or premises, calculated to interfere with the public health in the metropolitan boundaries, but it is either removed immediately or (if suffered to remain) under the risk of exposure, fine, and disgrace to the responsible person. A fine sturgeon was caught near Westminster-bridge on May 11. Thus far, good for the waters of Old Father Thames. Pollution of sewage passing through rivers in populous places cannot be too strongly enforced.

The sanitary supervision of Liverpool has so improved the health of that great seaport that, instead of being the largest in mortality, as formerly, Liverpool now ranks among the healthy of the ten great towns. As one proof of the many important efforts made for the sanitary improvement of Liverpool, I may mention that the last great municipal project in this direction is the conversion of middens into waterclosets, with passage into the main street sewer, one-half the cost of such conversions being at the expense of owners of the property, and the remainder borne by the Corporation.

In an article on the "Town Death Rates," the first three months of 1867, the *Builder* says:—"Birmingham is naturally one of the healthiest towns in England, and there is little doubt but that, with the same sanitary activity to which less favoured towns have been stimulated, the death-rate might be reduced nearly to the healthy district standard."

The average mortality in Vienna is something like fifty per cent. more than in London.

Birmingham, July 4.

NEW BOOKS, WITH SHORT CRITIQUES.

Report on the Progress of Elementary Education. By W. L. Sargant. Reprint.

*** From an examination of the marks or signatures in our marriage registers, Mr. Sargant seeks to arrive at some conclusions as to the progress of education amongst us. Some of these are of great interest. Education, he says, is advancing with much greater rapidity now than formerly. Still, improvements might be effected by paying for the schooling of the very poor, by applying the half-time system to the hardware districts, and by extending Government inspection.

On a Constant Water-supply for London. Papers by Messrs. Bateman, Beggs, and Rendle. London: Social Science Association.

*** The importance of a constant, instead of an intermittent, water-supply cannot but be palpable to all, but it is objected that a much greater consumption would follow were it adopted. The object of these papers is to show that the chief waste results from improper fittings, and with a little care a constant supply might be secured with little or no additional expenditure of water.

On some of the Conditions of Molecular Action. By A. Ransome, M.B., M.A. Cantab. Reprint.

*** Dr. Ransome seeks to extend our knowledge of that abstruse subject, catalysis. He arrives at the following conclusions. The following conditions are found to favour the production of molecular chemical change:—"1st. That two or more of the substances submitted to molecular action have a more or less powerful attraction for one another; 2nd. That their physical condition is favourable to molecular action; 3rd. That the molecular agent or catalyte has very low *chemical* affinity for the substances acted upon; 4th. That the molecules of the catalyte are free." He truly says that the investigation of this subject is likely to lead to important biological discoveries."

Hypogastria. No. 1—Hypogastria in the Male; treating upon those symptoms accompanying and resulting from a prematurely debilitated constitution, and suggesting a rational and successful treatment. By Harry Lobb, M.R.C.S.E. London: J. M. Young. Pp. 61.

*** This pamphlet was originally read as a paper before the Royal Medical and Chirurgical Society, and, for good reasons, no report of it was then given in the journals. Mr. Lobb has appealed from this decision to that of the Profession at large. Well, we do not interfere with this determination; only he must not ask us to give any opinion as to the merits of his extraordinary production.

FESTIVAL OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

In pursuance of our promise last week, to give a fuller account of the above *réunion*, which took place on the evening of the annual election of Fellows into the Council, as already reported, we have to add that the dinner took place at the Albion Tavern, Aldersgate-street, under the presidency of Mr. Thomas Green, of Bristol, who was supported by Dr. Bryson, the Director-General of the Naval Medical Department; Dr. Burrows, President of the Medical Council; Mr. George Cooper, Master of the Society of Apothecaries; and other distinguished visitors. About 150 metropolitan and provincial Fellows were present. The usual loyal and patriotic toasts were drunk with all the enthusiasm of former occasions.

"The General Medical Council" was responded to by the learned President of that body, who said that he always set aside every other engagement in order that he might accept the invitation of meeting so distinguished a body as the Council and Fellows of the Royal College of Surgeons of England. But, last year, having been unavoidably absent, he had heard with deep regret of the terms in which the chairman on that occasion had spoken of the Medical Council, which were not only most disparaging, but most offensive. The Medical Act he had ever regarded as most faulty, and even unintelligible, but when it passed into law he considered it incumbent on them to obey the law. As President, he had always endeavoured to do his duty, and the same spirit had actuated the other members of the Council; but the contending interests of England, Ireland, and Scotland had to be reconciled, and it took some time for men of undoubted capacity to understand those interests and to act together. Certain improvements, however, had already been accomplished. Thus it was now a law that no man should be qualified to practise the Profession unless he could give satisfactory evidence of his fitness, by general education, to take the position of a gentleman. (Hear, hear.) He therefore again deprecated the language used last year towards a body of men of eminence in the Profession who were honestly endeavouring to do their duty. (Loud cheers.) Having thanked the Fellows for the handsome, cordial, and generous reception they had accorded to him, Dr. Burrows resumed his seat amid great and prolonged applause.

"The Medical Corporations," proposed by the Chairman, gave him the opportunity of observing that he objected to the term "General Practitioner" as stupid and senseless. He preferred the distinctive terms "Physician-Surgeon" and "Surgeon-Physician," which more properly and honourably represented the duties of those members of the Profession who were engaged in general practice.

The toast of "The Royal College of Physicians" was responded to by Dr. Burrows, and that of "The Royal College of Surgeons" by the President, Professor Partridge. Both speakers alluded to the double examination which will probably be instituted by the College of Surgeons. Mr. Partridge, in reference to the past year, said that the examinations had been made more practical, by the introduction of the microscope, and of pathological preparations especially, and the application of Surgical apparatus and bandaging. The test of clinical knowledge already instituted in the Fellowship examination would perhaps at length be introduced into that for the Membership. It was also very desirable that some more intimate communication between the Fellows and the Council should be established — (great cheering)—that the Fellows should meet the Council from time to time, and thus personally represent to them their views on matters pertaining to their interests. Mr. Partridge's observations were received with marked attention, and produced a most favourable impression, judging from the prolonged cheers from the Fellows when he resumed his seat.

"The Society of Apothecaries" was responded to by the Master, Mr. George Cooper, who so worthily represents the Society in the General Medical Council.

Other toasts followed. "The Provincial Schools," by Mr. South, was acknowledged by Mr. Turner, of Manchester; "The Metropolitan Schools," by the latter, was acknowledged by Mr. Charles Brooke, F.R.S, Surgeon to the Westminster Hospital. The health of the Chairman, Mr. Thomas Green, of Bristol, by Mr. Solly, F.R.S., of St. Thomas's Hospital, elicited a warm and eloquent eulogium in testimony of his worth as a man no less than of his position as a provincial Surgeon.

"The Medical Benevolent Institutions" was appropriately answered by Mr. Charles Hawkins, the Government Inspector of Anatomical Schools; and "The Stewards" afforded Mr. Erasmus Wilson the opportunity of doing justice to the untiring work of Mr. E. C. Hulme, the indefatigable honorary Secretary. A few words of acknowledgment from that gentleman terminated the meeting.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Wednesday, July 10, the following gentlemen, previously Members of the College, were duly admitted Fellows of the same:—

John Clarke, M.D. St. Andrew's, 12, Hertford street; George Thompson Gream, M.D. Aberdeen, 12, Upper Brook-street; James Russell, M.D. Lond., Birmingham; John Richard Wardell, M.D. Edin., Tunbridge Wells; A. T. Houghton Waters, M.D. St. Andrews, Liverpool; John Henry Bridges, M.B. Oxon, Bradford, Yorks.

At the same meeting, the following gentlemen were reported by the Examiners to have passed the Primary Examination for the licence:—

William Beach Whitmore, King's College Hospital; Alfred Ashby, Peter Thomas Scott, William Prior Mallam, George William Shipman, Augustus Aldridge, William Howard Nicholls, and Edward Elphick, Guy's Hospital; Charles Edward Hoar and Charles Tanfield Vachell, King's College Hospital; John George Elliott Bolton, University College: David Smart, William Bezley Thorne, John Thomas Hartill, Thomas Holbein Hendley, and Albert Frederick Field, St. Bartholomew's Hospital; Augustus Constall Maybury, St. Thomas's Hospital.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 4, 1867:—

Charles William Ellis Foster, Leeds; Henry Sissmore Shaw, South Mimms, N.; Charles Munden, Minster, Somersetshire; Robert Charles Brookes, 137, Westminster Bridge-road; Thomas Flower, Codford, St. Peter, Wilts; Charles Wightwick Pitt, Malmesbury, Wilts; John Wardleworth, Bury, Lancashire.

As Assistants:—

Lewis Buttle Ross, Driffield, Yorkshire; Charles Edmund Woodstock, Woburn, Beds.

The following gentlemen also, on the same day, passed their First Examination:—

Edward Elphick, Guy's Hospital; Thomas Charles H. Spencer, Guy's Hospital; George Vawdrey, Guy's Hospital; Edward Swain, Westminster Hospital; John F. W. Tatham, Sheffield Hospital; Charles Wood, University College Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BASAN, H., L.R.C.P. Ed., has been appointed Resident Apothecary to the St. Marylebone General Dispensary.

BIRTHS.

BAINES.—On July 1, at 11, Cranley-place, Onslow-gardens, the wife of M. Baines, M.D., of a son.

BRUSHFIELD.—On July 4, the wife of Dr. Brushfield, of the Brookward Asylum, Woking, Surrey, of a daughter.

CHEVERS.—On July 2, at 29, Montpelier-villas, Cheltenham, the wife of Dr. Norman Chevers, Bengal Army, of a son.

COVEY.—On July 1, at Basingstoke, the wife of C. E. Covey, M.R.C.S., of a son.

DALE.—On July 7, at 1, Ledbury-road, Bayswater, the wife of G. C. Dale, M.D., of a daughter.

GRIFFITHS.—On June 25, the wife of T. D. Griffiths, M.B., of Swansea, of a daughter.

LEATHEM.—On July 8, at Stratford-green, Essex, the wife of J. Leathem, M.D., of a daughter.

RALFS.—On July 1, at Prospect House, Turnham green, the wife of Dr. Ralfs, of a daughter.

ROPER.—On July 5, at 9, Granville-park, Blackheath, the wife of A. Roper, M.R.C.S.E., of a son.

TATE.—On July 1, at Easton-cottage, Freshwater, Isle of Wight, the wife of G. R. Tate, M.D., Assistant-Surgeon Royal Artillery, of a son.

VINEN.—On July 1, at St. John's, Southwark, the wife of Dr. J. Northcote Vinen, of a daughter.

MARRIAGES.

HARTLEY—BRERETON.—On July 4, at the parish church of Burton-le-Coggles, Lincolnshire, J. Hartley, M.D., of Beverley, to Caroline Anne, eldest daughter of C. Brereton, Esq., of Beverley, Yorkshire. No cards.

SWEETNAM—GAYTON.—On July 3, at the parish church, Brighton, S. Sweetnam, Assistant-Surgeon, R.N., to Mary Eleanor Martha, eldest daughter of T. Westrope Gayton, Esq., of the Tower, Saffron Walden, Essex.

DEATHS.

BAKER, W., M.R.C.S.E., at South Norwood, on July 1, in his 80th year.

CHATTO, JOSEPHINE MARTHE, (*née* ESTRE), wife of John Chatto, Librarian to the Royal College of Surgeons of England, on July 2.

LAWRENCE, Sir W., F.R.C.S., F.R.S., Sergeant-Surgeon to the Queen, at Whitehall place, on July 5, aged 83.

LETTEY, R. A., M.D., Assistant Civil Surgeon at Kharra Factory, Chumparun, Bengal, on May 18, aged 26.

PHIPPS, J. G., M.D., at Cheltenham, on June 26, aged 49.

PROCTOR, H. E., L.R.C.P., M.R.C.S., of Wednesbury, Staffordshire, on June 29, aged 36.

RAYMOND, H. H., M.R.C.S., L.S.A., at Ashford, on July 2, aged 35.

RUTHERFORD, C. C., L.R.C.S. Edin., Surgeon 18th Hussars, at Wellington, India, on May 14, aged 35.

SIMMONS, J., M.R.C.S.E., L.S.A., at Southall-green, Middlesex, on April 29, aged 66.

VACANCIES.

BRISTOL HOSPITAL FOR SICK CHILDREN.—House-Surgeon and Dispenser.

HEREFORD GENERAL INFIRMARY.—House-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Clifton Union.—Mr. Thomas O. Mayer has resigned the Workhouse; salary £100 per annum.

Martley Union.—Mr. George G. Brown has resigned the Astley District; area 6100; population 1977; salary £37 10s. per annum.

APPOINTMENTS.

Bedminster Union.—George Adams, M.R.C.S.E., L.S.A., to the Second District.

Crediton Union.—George Percy, M.R.C.S.E., L.M., to the Chawleigh District.

Horsham Union.—Timothy H. Martin, M.R.C.S.E., L.S.A., to the Fifth District.

South Stoneham Union.—Alfred Pern, M.R.C.S.E., L.S.A., to the First District, and the Workhouse.

PROFESSOR PARTRIDGE, F.R.S.—It is only an act of well-merited justice to this gentleman, whose term of office as President of the Royal College of Surgeons expired on Thursday, to endorse the terms of high commendation in which his valuable services during the past year were recorded on that day by his distinguished colleagues at the College. If only for the greatly improved mode of conducting the examinations, especially by the introduction of that important feature, the use of bandages and splints on the living subject, he is entitled to all praise, already bestowed by the General Medical Council; and we hear from one well qualified to form a correct opinion, that his collegiate reign has been distinguished by equal administrative ability in all departments of the College.

UNIVERSITY COLLEGE, LONDON.—At a session of Council on Saturday, July 6, Dr. J. Russell Reynolds was appointed Professor of the Principles and Practice of Medicine. The Holme Professorship of Clinical Medicine was declared vacant by the resignation of Dr. Reynolds, and the vacancy was ordered to be advertised. The following gentlemen, graduates in Medicine of the University of London, were appointed Fellows of the College:—Dr. W. Tilbury Fox; Professor Wilson Fox, M.D.; Professor Grailly Hewitt, M.D.; Dr. Henry Maudsley; and Professor Ringer, M.D.

ROYAL COLLEGE OF SURGEONS.—During the present week there have been two meetings of the Council of the College. The first was specially summoned to elect a member of the Court of Examiners, in consequence of the quinquennial period of Mr. Kiernan's appointment having expired, and of his desire not to be again nominated, when Sir William Fergusson, Bart., F.R.S., and Professor of Surgery to King's College, was duly elected. On this occasion the recently elected councillors—Messrs. Prescott Hewett, of St. George's Hospital; Spencer Smith, of St. Mary's Hospital; and John Birkett, of Guy's Hospital—were sworn in, and took the seats heretofore occupied by Messrs. Skey, Wormald, and Kiernan. At the second meeting of the Council on Thursday last, Mr. John Hilton, F.R.S., Surgeon to Guy's Hospital, was elected President of the College for the ensuing year in the vacancy caused by the retirement in the prescribed order of Mr. Partridge, of King's College; and Messrs. Quain, Consulting Surgeon to University College Hospital, and Edward Cock, Surgeon to Guy's Hospital, were elected Vice-Presidents for the same period. The last Primary Examination for the Diploma of Membership of the College for the present session takes place this day, and the last Pass Examination on Saturday next.

FUNERAL OF SIR WILLIAM LAWRENCE, BART.—The remains of this distinguished Surgeon were interred on Thursday last, in Ealing churchyard, by the side of those of his late wife. In pursuance of the wishes of the deceased, the funeral was as simple as possible. The only representative who attended from the Council of the College of Surgeons, with which institution he was so long connected, was Mr. John Flint Lant. It is still more extraordinary to relate that, from so large a Hospital as St. Bartholomew's, only Mr. Callender attended. Mr. Mitchell Henry and Dr. Tweedie were the only other members of the Profession.

CLINICAL PRIZE ESSAY ON DISEASES OF THE SKIN.—We are informed that Mr. Hutchinson offers this year, as a clinical prize to the students of the London Hospital and those of the London Hospital for Diseases of the Skin, a well-bound and complete copy of "Wilson's Portraits of Diseases of the Skin" (value £14 14s.).

ANTHROPOLOGICAL SOCIETY OF LONDON.—We regret to hear that the Anthropological Society is about to lose the services as curator of Mr. C. Carter Blake. It is well known in scientific circles that the success of the Society, and any scientific reputation it has acquired, are in a great measure due to Mr. Blake's efforts, and we regret for the Society's sake to hear of his retirement. He is elected an Honorary Fellow of the Society in the place of Dr. Boudin, late President of the Anthropological Society of Paris.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—We understand that at the last meeting of the Faculty Dr. Alexander Bryson, C.B., Licentiate of the Faculty 1825, Director-General of the Medical Department of the Navy, etc., etc., was unanimously elected an Honorary Fellow. This is an honour which the Faculty very rarely confer, and in this instance, while graceful in them, it must be gratifying to Dr. Bryson to receive such a recognition of his public services, and of the high Professional position to which he has attained. —*North British Daily Mail.*

MORTALITY IN SCOTLAND.—The last Monthly Return of the births, deaths, and marriages registered in the eight principal towns of Scotland, informs us that the deaths of 1989 persons were registered during June, of whom 1021 were males, and 968 females. Allowing for the increase of population, this number is less by 92 than the June average of the last ten years, and 236 under the average of the last four years. The zymotic (epidemic and contagious) class of diseases proved fatal to 398 persons, constituting 20 per cent. of the mortality of the eight towns. This rate was exceeded in Dundee from the prevalence of whooping-cough, and in Leith from that of measles and typhus. Typhus caused 90 deaths, and was proportionally most fatal in Greenock, where it caused 7·2 per cent. of the deaths.

THE DISEASES PREVENTION ACT.—A second supplement to the *London Gazette* of Friday contains various orders of the Privy Council, relative to the Acts for the Prevention of Diseases. They continue in force for another six calendar months the Diseases Prevention Act 1855, and the relative Act, 23rd and 24th Victoria, cap. 77, specify regulations for boards of guardians and vestries as to what shall be done when cholera is in a union, parish, or district, and renew for six months an order of January 10, 1867, relative to vessels infected with dangerous or infectious diseases.

CEREBRO-SPINAL MENINGITIS.—We have not heard of any increase of this disease in Ireland. As we said before, the occurrences there have never been of that extent to warrant the use of the term epidemic at all. It does not seem, however, that we on this side St. George's Channel are to be entirely exempt from the disease, for the Registrar-General's last weekly return contains two cases of death from it. Both patients were boys, one the son of a labourer, who died on the 27th ult., at 19, Bolton-road, Kensington, of "purpura, fever (three days), cerebro-spinal typhus;" the other was the son of a printer's pressman, aged 7, who died on 1st inst., at 30, Cross-street, Holborn, of "cerebro-spinal meningitis (seven days), with purple spots (thirty hours)." We are very sorry to observe, also, although we cannot express any great surprise at it, that choleraic diarrhœa figures among the causes of death, and one case at least presented the features of true cholera. As a whole, however, the death-rate is below the average.

M. MAREY'S MYOGRAPH.—This instrument is not to be relied upon for accurate delineations of the condition of muscles during contraction. At least, so says M. Rouget, though his observations apply rather to the conclusions drawn

from observations made with the instrument than to the accuracy of the records of the apparatus. M. Rougct has been examining living muscular fibres under the microscope, and he states, as the result of several experiments, that when a muscle is in a condition of complete contraction, it exhibits no vibration whatever, and that the vibratory condition simply results from the want of a sufficiently powerful stimulus. This may easily be demonstrated by throwing a muscle into contraction, first with a feeble, and afterwards with a powerful electric current.

Cattle Plague Inquiry.—For the week ending July 6 one fresh outbreak has been reported—viz., at Hackney, in the Tower Hamlets district. Two cases of cattle plague are reported to have occurred during the week, being a decrease of 9 on the previous return. One of the diseased animals was killed, and one died. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,722, and 56,894 healthy cattle have been slaughtered to prevent the spread of the disease.

Norwich Medico-Chirurgical Society.—The first meeting of the above Society was held in the Museum of the Norfolk and Norwich Hospital on Tuesday, July 2. Dr. Eade, the President, delivered an inaugural address, which was followed by several very interesting papers and cases, illustrated by pathological specimens and photographs. The Society was formed on April 24, by an amalgamation of the Norwich Pathological Society with the Norwich and Norfolk United Medical Book Society, and its objects are the following:—The cultivation and promotion of Physic and Surgery; the support of the Medical library (now containing between 3000 and 4000 volumes) for reference and circulation; the holding meetings for the exhibition and description of specimens, drawings, microscopic preparations, casts and models of morbid parts; the reading of papers, and discussions on Medical and Surgical subjects and the branches of science connected with them; the consideration of public matters affecting the Profession, and the encouragement of friendly intercourse between its members.

At the Derby Quarter Sessions on Tuesday, Dr Robertson, of Buxton, qualified as a magistrate. This is an appointment on which the inhabitants and visitors of Buxton may reasonably be congratulated. For the want of a magistrate residing in the town has been often experienced; and Dr. Robertson's long connexion with Buxton, socially and professionally, will have given him an extensive knowledge of local business and affairs, which, combined with the intelligence, tact, and energy he brings to bear on everything he undertakes, will doubtless render the appointment one of general public utility.

Syphilitic Dysphonia.—M. Diday, in a valuable address delivered before the Paris Society of Surgery, showed the circumstances under which the employment of mercury proves most advantageous, however mischievous its indiscriminate use. In dysphonia, for example, he said that the action of the protoiodide was most decisive. A singer having been kept from the stage from this cause, the moment he had made out the true nature of the disease he told her to write to the manager and promise to appear in her part in ten days. She did so, and the protoiodide enabled her to keep good her word.—*Gaz. Méd. de Lyon*, June 23.

Composition and Quality of the Metropolitan Waters in June, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition(a)	Oxidisable Organic Matter(b)	Hardness.	
				Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	19·83	1·00	0·28	12·6	4·5
West Middlesex	19·50	0·99	0·51	11·5	4·5
Southwark and Vauxhall	20·67	1·25	0·64	13·5	4·5
Chelsea	20·00	1·18	0·82	12·0	4·5
Lambeth	19·42	1·46	0·68	13·5	4·5
Other Companies.					
Kent	27·00	0·50	0·04	16·5	7·0
New River	18·44	0·75	0·48	12·0	5·0
East London	19·60	0·87	0·56	12·0	5·0

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

Influence of Strong Emotion in Inducing the Appearance of Constitutional Syphilis.—As a remarkable example of this, M. Diday refers to the case of an engineer, engaged in the construction of public works, whom he had treated for syphilis by means of mercury eight years previously, and who for six years had not presented any symptoms of the disease. He suddenly learned that a bridge which he had built had fallen in, and in a week afterwards came to M. Diday on account of impetiginous syphilide of the hairy scalp and beard.

Physiological Action of Bromide of Potassium.—Bromide of potassium has been given in large doses by MM. Eulenberg and Guttmann to dogs, with a view to ascertain the nature of its action on the system. The doses employed varied from 15 to 60 grains (troy), and were given by subcutaneous injection. The first effect produced was great cardiac disturbance; this was followed by diminution of sensibility and loss of power of voluntary motion; finally death took place in from ten to forty minutes, being produced by paralysis of the heart. Post-mortem examination showed only general congestion of the viscera and the presence of superficial ecchymoses in the lungs. Experiments tried with the bromide on frogs gave similar results.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. L. M.—The diseases are different. Consult Trousseau's Clinical Medicine, translated by Bazire.

M. J. S.—No patient can be confined as insane without two distinct Medical certificates.

Ichnael.—Nevins, Meadows, and Macdonald's supplement to Scoresby-Jackson, are the only books as yet published on the subject.

Royal College of Physicians.—The President and Fellows have sent out invitations to a *conversazione* to take place on Wednesday, the 24th inst., at the College.

"*Nutley.*"—Mr. Partridge, late President of the College of Surgeons, will preside at the next Fellows' festival. A few more such as the last will break up this hitherto agreeable reunion; many left before the long-winded speeches were half over, to enjoy a more agreeable hour elsewhere.

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—For the information of intending candidates I beg to inform you that, notwithstanding the so-called new warrant of April last, Mr. Synan, M.P., stated in the House of Commons, on Friday, the 5th, "that according to the returns which had been furnished to the House, it will take forty years to make an Assistant-Surgeon a full Surgeon." On first entering the service a subordinate position may not be much felt, but, after ten or twelve years, to find oneself still low down the list of assistants produces a rather hopeless feeling.

I am, &c.

Admonition.

Venesection in Cholera.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having been applied to for further information in explanation of my letter published in your issue of the 22nd of last month, I beg to state that it was in the first case of cholera which occurred in this district, in August, 1849, that I resorted to bleeding. The case was the most severe one I witnessed throughout the epidemic—indeed, I may affirm that it was on account of the extreme violence of the action of the abdominal muscles and the failure of very liberal doses of calomel, opium, the warm bath, and other means to subdue the prominent symptoms of the case, that I was led to the use of venesection. I remember the blood was very dark, and therefore I considered it necessary to carry the bleeding far enough to effect an alteration in its character. The blood was allowed to flow until it assumed a brighter and more natural colour. The quantity taken was very considerable; it amounted to four pints. The effect was all that could be desired. The patient (a gentleman's servant, travelling the country on foot in search of employment) recovered so rapidly that he left the neighbourhood per train for Manchester on the fifth day after the attack. I spent two hours and a half in combating the case in the first instance, and I believe two hours of that time were fruitlessly employed in using other and less effective means.

I deeply regret that the practical lesson to be gathered from this case was so far lost upon me that I did not recognise its use in the less violent, but unhappily fatal, cases which occasionally occurred throughout that very afflictive season. What I wish to establish now is the knowledge of the real effect of bleeding on cases of cholera verging on collapse and during that important stage: the suggestion to my mind is that if a sudden and powerful influence were brought to bear upon the physical obstruction resident in the pulmonary circulation, especially by an adequate bleeding, the patient, being thus relieved from the oppressed breathing, would necessarily imbibe a much larger amount of atmospheric air into the lungs, and the blood would also necessarily become impregnated with a larger amount of oxygen, and in this way the process of purification of the blood would be commenced and carried on, possibly to a successful result. I do think it probable that an early and free exhibition of suitable stimulants would be called for in many cases where the constitutional powers were naturally low. I beg to submit this proposition, with the greatest respect, to Professional men, with the single object of eliciting the truth in so important a case. The extent to which the

remedy may require to be carried will no doubt vary very much in different cases; hence the value of careful Medical reports on the subject. With respect to the mode of action of calomel in cholera cases, I would remark that throughout the epidemic I observed that with the aid of calomel, in nearly all cases of choleraic diarrhœa and the more moderate cases of cholera, I could depend upon producing a gradual restorative action of the pulse, and, accompanying this, a return of the animal heat; for at each visit the pulse could be distinctly felt to rise and expand, and the pulsations become more and more natural, so that this constituted the test of progress in each case. I never knew a case recover where this effect on the pulse had not been produced, and on the contrary, when no such effect took place, the case grew rapidly worse, and proved fatal. I thought it requisite to administer the calomel until the gums indicated that the constitution was brought under its influence. I did not consider the patient safe from relapse short of this. The reappearance of bile in the alvine discharges indicated the returning safety of the patient, and calomel carried to incipient ptyalism was employed to bring about this change, as it was thought, in the most speedy manner. While it answered admirably for the milder cases in conjunction with mist. cretæ co., conf. opii, conf. aromat., and a small quantity of tinct. opii, speedily followed by a mild aperient, yet I believe I never saw it answer in the confirmed blue stage of cholera. The stomach at this crisis probably becomes seriously congested, and incapable of performing its accustomed functions; and before it can be influenced by calomel, it requires to be relieved of that congestion. On a review of the effects of the remedial agents employed by me in cholera, I cannot withhold the conclusion that the processes of cure may fairly be described as being of an eliminatory character. The designation of them by Dr George Johnson in the consider very valuable as a guide to the treatment of the disease by whatever means we may elect to employ. I do not see it at all requisite that we should all employ the same means, but that we should keep in view the same end—viz., the relieving of the system of the poisoning agent by which it is affected through the medium of the various channels through which we bring our remedies to act. I am, &c.

Pontefract, July 2. GEO. P. ATKINSON, M.R.C.S.

THE FEVER IN THE MAURITIUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following is an extract from a private letter from a gentleman resident in Mauritius. I am, &c.

Portsea. R. E. T.

"There has been a frightful fever raging in the island since about February 10, and I believe that I am within the mark when I say that the deaths at the present rate are 100,000 per annum out of a population of 340,000. This dreadful fever is supplemented in its destruction of life by actual starvation. Hundreds upon hundreds are dying of it. In this country the husband and father is the only winner of bread. If aught happens to him, the whole surviving family are destitute, and, when helpless through sickness, generally perish. Hospitals are being formed in every direction. Soup kitchens have been established, which may relieve those who can crawl to them; but I fear that the inexpressibly filthy habits of the Indian lower class of creole constitute terrible rivals to Medical skill. The misery and suffering are sickening in many parts of the island, but especially in Port Louis, and I really think that, humanly speaking, nothing but a tremendous fire in Port Louis will clear away the various seats or foci of the disease, which are so numerous in the town. It has proved an awful visitation, and we can only pray that God in his mercy will stop the disease, for human efforts seem powerless to do so. . . . Business is almost at a standstill, and the public works nearly suspended; in fact, for the latter I can scarcely get any labour whatever. It is almost impossible to load or unload a ship in the harbour, and quinine, which seems to be the only remedy, has frequently nearly failed us in the island. A short time since a few ounces were sold by public auction, and £27 8s. was paid for one ounce. . . . . In some places graves cannot be dug sufficiently fast to bury the dead, whilst the dreadful scenes in many parts of Port Louis are too horrible to mention."

COMMUNICATIONS have been received from—

Dr. FAYRER, Calcutta; Dr. BAUMLER; Dr. SEPTIMUS GIBBON; Dr. BALTHAZAR FOSTER; Mr. HILL; Mr. G. GASKOIN; Dr. B. W. RICHARDSON; Dr. MACPHERSON; Mr. SPENCER WATSON; Dr. HUGHLINGS JACKSON; Mr. J. CHATTO; Dr. W. T. ROBERTSON; Dr. ALDERSON; Mr. STEPHENSON; Dr. CARTER; Mr. PLANT; Dr. MAY-MOR; Dr. DALGAIRNS; Mr. KESTEVEN; Mr. HANCOCK; Dr. OPPERT; Dr. MAUND; "ADMONITION;" Mr. BURROWS; Mr. GIBSON; Dr. WHITMORE; Dr. LETHEBY; Dr. MERCER.

BOOKS RECEIVED—

Journal of Mental Science, No. 26—Popular Science Review, No. 24—Fox on Dyspepsia—Camps on Railway Accidents—Glasgow Medical Journal, Nos. 12 and 14—Condy's Alkaline Permanganates—Maund on the Climate of Sandown.

NEWSPAPERS RECEIVED—

Gazette Hebdomadaire—Laboratory—Buxton Advertiser—Stamford Mercury—Norwich Mercury—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 6, 1867.

BIRTHS.

Births of Boys, 982; Girls, 937; Total, 1919.
Average of 10 corresponding weeks, 1857-66, 1763·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	572	558	1130
Average of the ten years 1857-66	616·8	564·1	1180·9
Average corrected to increased population..	..	..	1299
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.	Cholera.
West ..	463,388	..	5	2	3	5	3	12	..
North ..	618,210	11	6	5	1	6	10	7	..
Central	378,058	2	3	1	1	3	6	13	..
East ..	571,158	12	4	5	..	7	12	12	..
South ..	773,175	6	4	6	1	6	14	10	..
Total ..	2,803,989	31	22	19	6	27	45	54	..

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 6, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending July 6.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending July 6.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	1919	1421	1130	81·5	45·2	61·2	0·31	31
Bristol (City) .	165572	35·3	98	74	†57	78·0	46·8	60·1	0·53	54
Birmingham (Boro')	343948	43·9	219	167	125	75·0	46·2	59·2	0·50	51
Liverpool (Borough)	492439	96·4	329	285	228	72·6	48·8	58·4	0·57	58
Manchester (City) .	362823	80·9	230	205	†185	75·5	41·7	57·1	0·60	61
Salford (Borough) .	115013	22·2	78	58	57	74·8	42·9	55·7	0·62	63
Sheffield (Borough).	225199	9·9	152	119	69	74·0	46·0	56·0	0·80	81
Leeds (Borough) .	232428	10·8	104	118	106	75·0	41·5	57·8	0·84	85
Hull (Borough) .	106740	30·0	79	49	44	..	..	..	..	..
Newcstl-on-Tyne, do.	124960	23·4	56	66	53	67·0	47·0	54·6	0·44	44
Edinburgh (City) .	176081	39·8	149	85	92	69·7	46·3	54·6	0·20	20
Glasgow (City) .	440979	87·1	318	257	218	68·1	44·2	53·8	0·33	33
Dublin (City and some suburbs) .	319210	32·8	144	§157	156	72·9	39·0	55·9	0·16	16
Total of 13 large Towns . . .	6187764	34·3	3886	3061	2520	81·5	39·0	57·1	0·49	49
					Week ending June 24.	Week ending June 29.				
Vienna (City) .	560000	..	..	..	322	..	..	67·6	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·796 in. The barometrical pressure decreased from 30·11 in. at the beginning of the week to 29·52 in. on Tuesday, July 2.

The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 59·1°.

APPOINTMENTS FOR THE WEEK.

July 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

15. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

17. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

19. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.,
enior Physician to the Royal Infirmary for Diseases of the Chest.

ON THE INFLUENCE OF EXTREME COLD ON NERVOUS FUNCTION.

Part II.—PRACTICAL.

Gentlemen,—In my last lecture, as those of you who did me the honour to attend it will remember, I commenced by showing from direct experiment the various stages of preaction, inertia, and reaction produced on the living body by the application of cold to the peripheral surface of nerve. I next described the effects of the same agency on nerve-cord, on the cerebrum, and on the cerebellum. In illustration of the effect on the cerebrum, I froze this organ in a pigeon, producing deep stupor and insensibility. The animal began, however, to recover during the lecture, it quickly regained all its natural functions, it has remained unaffected, and here it is now, as healthy as if it had not been subjected to any disturbance of its physical condition. Proceeding onwards, I described the symptoms which ensued when the cerebellum was frozen, and these symptoms we can again demonstrate. Here is another healthy pigeon. We render its cerebellum inactive by directing over it for a minute or so compound ether spray. Observe, there is first torpor, then movement backward, and soon a complete and rapid backward sommersault, without the least bodily injury or sign of pain. Were it necessary, by reapplying the spray, these sommersaults and backward movements could be made to reappear many times with the most rigorous certainty.

Lastly, I passed to consider the influence of cold on the medulla oblongata and the spinal cord, showing especially that when the medulla is frozen death at once results from arrest of the respiratory power.

Omitted Facts.

In the last lecture two important facts escaped notice, which facts I now proceed to supply. The first of these facts is as follows:—In a warm-blooded animal even actual freezing of living structure may be induced without any stage of preaction, provided always that the heat be abstracted with sufficient energy and rapidity. Let me demonstrate this on my own body.

We have here for our spray apparatus a very light hydrocarbon fluid, called rhigolene. It was sent to me by Professor Donaldson, of Baltimore, and it is used extensively in America for the production of local anæsthesia. It boils at 70° Fahr. Dr. Sedgwick will direct a large spray of this on my arm, and, as you see, the process of freezing is immediate. The part, a moment since flexible, warm, and sensitive, is now hard, cold, and absolutely insensible. There has been no redness, no pre-exalted sensibility, no evolution of heat—in short, no stage of *pre*-action. All the parts have been rendered inert together, and when the cold is withdrawn recovery is equally rapid, and is without *re*action. Some day we may have a means of extending this rapid inertia, so as to make the whole of a limb insensible and to operate on a part some considerable distance from the point where the application is made. This process of rapid freezing is the best and safest.

The second omitted fact is this. When the process of sudden freezing is brought to bear on the whole cerebro-spinal system of a cold-blooded animal, every function of life is immediately suspended. Here is a large powerful frog. I direct the rhigolene spray on the head and spine for a few seconds. I place the animal thus petrified in your hands; it is like marble—a hard frozen mass. You would declare it dead; it only sleeps. As it takes up heat from the surrounding air, its pulses recommence; in a short time it leaps; it lives again, and it sustains no injury. If you ask me how long a frog could be kept in the state of temporary death we have here seen, I answer that time seems to me to make no difference as to results, the conditions being sustained. I have every reason to believe that if the animal were kept thus frozen for a century, or any number of centuries, it would live again as well as ever on restoration of warmth. By this freezing we have fixed all the water of its tissues; we have stopped evaporation, we have suspended motion, we have arrested waste; but we have done no injury that may not be removed by the re-solution of the water and by the re-communication of motion, from the act of re-solution, to the particles of water.

We may illustrate the phenomena thus observed by experiment on a lower mechanism; and, although the illustration is necessarily extreme, it is useful, as familiarising the mind to the study of physical effects proceeding from a common cause. I take my watch and find it is in motion; its hands move under the influence of force derived from the mainspring, which mainspring is enclosed in a small box lying at this point. I bring extreme cold to bear on the box holding the mainspring; I change in this manner the condition necessary for the work of the spring, and the watch immediately ceases to go. It is not physically injured, but it is stopped, and it would remain stopped for any length of time, the conditions being precisely the same. I change the conditions; I allow the watch to absorb the surrounding heat, and in time of itself it goes again. In the watch the cold stopped the motion by modifying the molecular condition of the metals. In the frog the water stands in the place of the metals, and the cold stopped the motion by acting upon the water.

Hybernation.

It is impossible to observe the phenomena of prolonged and profound insensibility produced on the frog by cold, with the entire recovery that follows, without recalling the simple and analogous process brought to bear on animals by Nature herself. In the process of hybernation Nature not only displays to us the same order of phenomena, but uses the same means for the production of the inertia—viz. cold—and the same means—viz. warmth—for the restoration of motion. And as, in nature, some warm-blooded animals are put to sleep by cold (the dormouse, for example), so in these we may predict that art will be able to bring about the same condition. In fact, in a bird, as we saw at last lecture, the thing was done. It will be an interesting study for some future comparative anatomist to discover why animals that hybernate come so readily under the influence of cold. There must either be some peculiarity of construction, which enables the cold to reach and act upon their nervous centres with special activity, or the nervous centres themselves must be specially susceptible to the influence of cold.

PRACTICAL INFERENCES.

The observations which these researches on the influence of extreme cold on nervous functions call forth are so varied and so rich in suggestion, it is difficult for the mind rapidly to take them in in all their fulness. Vasco Nunez, standing on the height of the Darien, and exclaiming, as he saw for the first time the Pacific Ocean, "The sea! the sea!" could hardly have cause for wonder more. We are brought, as it were, to confines of reality, where before there was obscurity only and doubt and dream. We feel that in time the physiologist will pass by the poet, and, as he proceeds in discovery, will place fact in that high place which, as yet, in the history of the world, fancy has claimed as her especial domain.

Such few points of practical moment as I may on this occasion bring and string together are, of necessity, as minute as the time in which they have been studied has been short. Still they will awaken the attention, as I hope, of many, and fascinate a few.

Influence of the Conditions of the Water of Nervous Matter on Nervous Functions.

The first subject to which I would invite your attention has reference to the influence of water, under varying conditions, on nervous function. You will see by the table before us that water forms above 80 per cent. of nervous structure; albumen forms 7 per cent.; the remainder is fatty matter and salts—mainly phosphatic salts. It seems to me, from the experiments which I have conducted, that all the phenomena of disturbed natural function we have seen depend chiefly on modification in the physical condition of the water; on the transference of the water from the fluid to the solid state. In freezing nerve-matter we take from the water its heat of fluidity, or the force which, holding its molecules apart and giving them motion, supplied the condition for that mobile and active state which is the fluid state of water. We have crystallised the water of the nervous matter in all the cases in which we have frozen it. We have reduced it by this means from activity towards inertia; therewith we have deprived the

structure of the power to maintain what is called life. The proof that upon the water having undergone solidification the principal phenomena rest, is proved by the fact that when the crystallised frog is warmed again, when it is allowed to take up heat from the surrounding air, it recovers its powers. In these animals the tissues are so thin, and such fair conductors of heat, that the heat can immediately act upon the nerve-substance, and can set the solid mass at liberty. In this respect frogs and animals, constituted as they are, differ from warm-blooded animals. Warm-blooded animals, evolving more heat from within and requiring more heat, are usually protected naturally with non-conducting skin and fur, or feathers, so that their heat is sustained by being retained in their bodies or conserved. But, because they are thus protected from undue loss of heat, they are also rendered incapable of directly taking up heat in sufficient degree to restore instantly the heat of fluidity of their fluids and tissues when that is withdrawn. In chilling their nervous centres, therefore, we have to be most careful so to limit our operation as not absolutely to stop the respiration and circulation. We may render them insensible in the profoundest degree; we may bring them so nearly to death that they seem dead, and if we permit the merest remains of their fire-producing apparatus to continue in play they will recover. But it is essential that we let the fire remain alight. In hybernating animals, during hybernation, this is the secret of their recovery—the fire never goes quite out.

In speaking of the crystallisation of nerve-matter by cold, I have ventured to insist firstly and chiefly on the solidification of the water; but in nerve-substance there is also a considerable percent of fatty matter, which when heated is fluid, like water, and which also, like water, loses its heat of fluidity, crystallises, and becomes solid by cold. When, then, we freeze the brain, we solidify this fat also, and, what is more, we solidify it at a temperature at least thirty degrees higher than the freezing point of the water; and as this fat, solidifying first, becomes a bad conductor, so it impedes and limits the freezing of the whole mass of nerve substance. In hybernating animals I should think the fatty part of the brain and cord is intensely solidified by the cold.

This form of crystallisation of nerve-matter, whether of water or of fat, is simple; it is, however, not the only form of solidification that can be induced. We can solidify nerve-matter so as to destroy its function by two other means at the least—viz., by withdrawing the water from the albuminous constituent of nerve, and by altering the constitution of the albumen by heat. I can illustrate this subject by a very simple experiment. In this beaker there is a solution physically the same in composition as brain-matter; it is in a state of fluidity. I take up a little of this fluid with a soft brush, and paint a surface of glass plate with it. I now, on the opposite side of the plate, project rhigolene spray, producing intense cold. You see the fluid becomes white and solid, and adherent to the glass. It is crystallised and solidified. I take another portion of the same fluid, paint another glass plate with it, and this time, instead of using cold, I drop on a little absolute alcohol. The alcohol as it interminglesseizes the water with evolution of heat, and again there is whitening and solidification of the fluid, with adhesion to the glass. In this case, the molecular condition being changed, the albumen is precipitated, and assumes, with the water, the solid state. On a third plate of glass I put a little more of the fluid, and then gently apply heat; once, again, observe the same objective phenomena—whitening, solidification, and adhesion to the plate. Here, again, it is the albumen that has undergone change; it, with the water diffused through it, has produced a solid mass—a condition also akin to crystallisation. If I varied this experiment by directing the same processes to living nervous matter, I should induce similar series of phenomena on the nerve-substance; and in so far as alteration in the function of the nerve is concerned, I should produce disorder of function in every case identical. One difference—and it is an essential difference in some respects—would be presented, and it is this. If the nerve were solidified by cold, it would quickly regain its function under the influence of heat; if the nerve were solidified by alcohol, it would slowly and imperfectly regain its function; while if the nerve were solidified by heat it would, according to our present knowledge, be destroyed in regard to function altogether.

We cannot leave this part of our subject without being led to the contemplation of the influence of other and more refined agencies acting upon the cerebral and spinal matter. What is that change in nerve produced by a blow or communication of great mechanical force: nervous shock? What is the change produced by pressure? What is the nature of the change induced by loss of blood, by choleraic flux, by the heat of fevers, by what are called powerful odours, by strong external impressions—alarms—acting on the brain? When we see how the molecular condition of nerve can be transformed and the function of the injured part modified by cold and by heat, by abstracting and intensifying force, we gain, I think, a physical reading of these other influences as yet, of course, obscure, but still with light stealing into the obscurity.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF "CEREBRO-SPINAL MENINGITIS (SEVEN DAYS) WITH PURPLE SPOTS (THIRTY HOURS)."

By SEPTIMUS GIBBON, M.B. Cantab.,
Medical Officer of Health for Holborn.

As the above disease is exciting considerable interest at the present moment, I send you the particulars of a case which I have, as Medical Officer of Health, just been inquiring into, and which was alluded to by the Registrar-General last week. C. C., aged 7 years, the son of a printer's pressman, had always been delicate, having had three severe illnesses. The last occurred four years ago, when, in addition to bronchitis, he had head symptoms of such a character that his Medical attendant, Mr. Strange, of Hatton-garden, caused his hair to be cut off, cold applications and a blister to be applied to the nape of the neck. He recovered very slowly, and has ever since complained of his head, screaming out, as if alarmed, in his sleep. His mental faculties were unusually good. Nine weeks ago he had a fit at school, and fell on the back of his head; was extremely drowsy after it. From this date he complained of his head aching more severely; he vomited his food occasionally, especially in the early part of the day. He uttered more piercing and more frequent screams at night, and complained that he saw "fire" at night. He rolled his head, and "bored it back" on the pillow. On Sunday, the 24th ultimo, he suffered very much from bilious headache. The following day he went to a school treat at Bushey-park, and on the 25th ult. the symptoms returned with such violence as to compel his mother to seek the advice of Dr. Thomas Clark (Mr. J. R. Gibson's able assistant), who writes me word "that he complained of intense headache, vomiting, constipation, rigor, great heat of skin, with 'hyperæsthesia' over the whole body, quick pulse. Till the 28th ult. he continued in the same state, unrelieved by treatment (ice applied to the head increased the pain). When he became better, the vomiting and pain, with other symptoms, very much abated. On the 29th he was sitting up in bed taking beef-tea and wine. He continued better till 12 o'clock on the 30th, when he suddenly screamed out with pain in the head. Tetanic convulsions came on; the pupils were fully dilated, and the eye insensible to touch; the tongue slightly protruded from his mouth; upon his extremities and back a purple rash. There were no petechiæ on any part of his body. He died at 6 o'clock p.m. on the 1st inst. The family consists of eight living in one room. Has had but little vegetable food for some months back, living particularly on rice, and sometimes a little meat. The gums were healthy and firm." I concur with Dr. Clark in regretting that no autopsy was permitted in this case, because the previous history of the case leads me to doubt whether it was a genuine case of epidemic and idiopathic "cerebro-spinal meningitis." Dr. Clark, who is an excellent pathologist, did not know the antecedents of the boy, or I think he would have suspected that the "cerebro-spinal meningitis" was excited by some old organic tubercular (?) disease of the brain. On glancing at my notes of cases of "meningitis," I am struck with the frequent mention of "rashes" on the extremities. In one case (aged 23) there was noticed an erythematous blush over the hands, and the nose was tense, red, and shining; in another (aged 7) livid patches of redness on hands and forearms; in another (aged 21) there are livid patches about the knees and ankles. I never saw a case of epidemic cerebro-spinal meningitis, but my friend Dr. Beigel, who has seen many cases, tells me the attendant

eruption is similar in character to the typhus rash, varying as to depth of colour. The above-mentioned patches were very different in appearance. There were post-mortem examinations in two of the above cases, when the pia mater was found to be intensely congested, with large ecchymoses of blood into its meshes. The girl, aged 7, died on the third day; was thought to have taken scarlet fever, and the symptoms and appearances after death were attributed to that poison.

CASE OF CEREBRO-SPINAL MENINGITIS,

WITH SPECIAL REFERENCE TO THE TEMPERATURE OF THE BODY.

By CHRISTIAN BÄUMLER, M.D., M.R.C.P. Lond.,
Assistant-Physician to the German Hospital, Dalston.

THE recent epidemic in Ireland has made the question of cerebro-spinal meningitis again the topic of the day, many of the cases observed there leaving no doubt as to their identity with the disease which, three years ago, caused so much terror in some parts of Germany. There is, however, this peculiarity in the Irish outbreak, that eruptions on the skin are a much more prominent feature than they have been in Germany, and in this respect the Irish cases seem to bear greater resemblance to those observed at different times in North America. The variety in the general aspect of the disease, as observed in different countries and epidemics—a variety much greater than in any other disease of this class—has been well pointed out in the excellent leading article in No. 885 of the *Medical Times and Gazette*. But no less a variety exists in the course of different cases, or with regard to any special symptom in the same epidemic. Even the febrile symptoms, which, in zymotic diseases, generally possess so characteristic a course that every one of them may be recognised and distinguished from others by them alone, present here, according to the evidence of different observers, no regularity whatever; and the presumption, so natural from the valuable indications the thermometer furnishes in other diseases, that it might also prove a guide in this intricate variety of forms, and that, by establishing a certain type of the febrile symptoms, it might help us in the diagnosis of this disease, has not been realised. For if we look to the more general statements made with regard to this point, we find a great discrepancy—some observers (and this seems to have been generally the case in the German epidemics) having found an elevation of the temperature; others, as in some of the Irish cases, finding it normal or even below the normal standard. General statements of this kind are, however, of little value, even if they should correctly express the average temperature of a single case, or of a number of cases, obtained by a great many single observations; for the temperature of the body may at times, even for days, be normal or below the normal, whilst at other times it is considerably raised. In the same case of typhoid fever, for instance, during the third or fourth week of the illness, the Physician who sees his patient in the morning may not find any increase of temperature at all; whereas the same patient on the same evening may have a temperature of 5° F. above normal, quite within the typical variations occurring at that period of the disease. An average statement would in such a case not give any idea of what actually takes place. Observations of the temperature are the more valuable the more insight they give into the deviations, not from the normal range only, but from the daily fluctuations also which the temperature presents in health, and it is clear that the greater the irregularity of the febrile symptoms in a disease, the more frequently must we repeat our observations. Now, if we examine the records of a greater number of cases of cerebro-spinal meningitis in which the febrile symptoms have been carefully watched from beginning to end, we find a variety no less perplexing than in the other symptoms. If we take, for instance, the observations made in an epidemic at Erlangen in 1864 and 1865 by Ziemssen and F. Hess,(a) we find cases in which, after the onset of the disease, the temperature, which then had been raised, returned again to, or even below, the normal standard, and only rose again towards the fatal termination; in some cases the temperature was moderately raised, whilst in others it was considerably elevated; at some period, especially during convalescence, it presented sometimes quite an intermittent character, which led to the belief by Medical men, as well as by the public, that ague was complicating the disease. Ziemssen concludes from his cases "that in this disease the temperature does not at all show any uniformity or any regularity in its course; it is so irregular that but few of the curves resemble each other. Sudden variations, rises of short duration with or without increase of the other symptoms, are common; generally speaking, a remittent fever, with exacerbations of 1° to 2° F. (not always occurring in the evening), is the most frequently met with."(b) Wunderlich (c) and Mannkopff(d) observed the same in the epidemics at Leipzig and at Berlin respectively.

This irregularity was well represented in a case of sporadic meningitis cerebro-spinalis which came under my observation last year. As it is of considerable interest in many other respects, and as its publication might induce other observers in this country to communicate their experience on the course of the febrile symptoms in cases of sporadic or epidemic meningitis, I think it may not be inopportune to lay it before the Profession just at the present time.

Illness beginning with Symptoms of Subacute Rheumatism—Fugitive Eruption of Spots, like Erythema nodosum, on Legs—Repeated Irregular Attacks of Fever, with or without Shivering, accompanied by severe Headache—Several Complete Remissions of all Symptoms—Meningitis clearly pronounced Five Weeks after Commencement of Illness—Death Ten Days afterwards—Albuminuria during last Week—Pulse rather slow throughout in comparison to Height of Temperature. Post-mortem: Purulent Meningitis, especially Cerebral—Acute Granular Degeneration of Kidneys.

M. R., aged 34, sugar baker, living in Rupert-street, Whitechapel, a tall, strongly built man, was admitted on April 19, 1866, into the German Hospital, Dalston, under the care of Dr. Sutro. He had been ill a fortnight with headache, pain and swelling of the right ankle-joint. He had only had trifling indispositions, and never suffered from any venereal affection nor from rheumatism. Like most sugar bakers, he used to drink a good deal of beer. Except slight swelling and redness over the right ankle-joint, nothing abnormal can be detected in any organ, but he looks rather pale, and his muscles are not well developed in comparison to his frame. On the evening of April 19 his pulse was 64, respiration 24, the temperature in the axilla 100·4° F. Ordered broth diet; sodæ bicarb. gr. xij. ter die.

During the following days he got better, his pulse ranging between 56 and 76, the temperature between 100·0° and 100·8°, and he was allowed quarter diet on April 22. On the 23rd some spots were observed on his legs, like erythema nodosum, which, however, had disappeared again on the following morning. The heart's sounds were always normal, except on the 24th, when a slight systolic murmur was heard at the apex, disappearing again on the same evening. At about 2 p.m. on the same day he had slight shivering, and after that complained of very severe headache, whilst at the same time the temperature rose considerably.

April 24.—6.40 p.m.: pulse 76; respiration 28; temperature 103·5° F.

25th.—10.30 a.m.: pulse 76; temperature 102·6° F. Complains of severe headache. Perspires freely at this moment. No pain in any joint; the swelling of right ankle has quite disappeared. A careful examination of the whole body does not disclose anything abnormal, only that the lymphatic glands in the inguinal regions, in the left cervical region, and at the right elbow are rather large and hard. But no traces of a syphilitic affection, either on the skin or the bones or in the fauces, can be detected. Tongue slightly coated. Ordered ol. ric. ʒss. 6.40 p.m.: pulse 64; temperature 101·2°. Headache less. Bowels were open three times.

26th.—9 a.m.: pulse 52; temperature 99·6°. Had a good night. 7 p.m.: pulse 70; respiration 20; temperature 103·8°. Felt well during the day. By half-past 5 in the evening trembling suddenly came on and lasted some time, but he states distinctly that it has not been accompanied by any feeling of cold. Complains of pain in left side and much headache. Tongue very much coated.

27th.—Profuse perspiration during night. Headache abated towards 4 a.m. Splenic dulness not larger than on admission,

(a) *Deutsches Archiv für klinische Medicin.* Leipzig, 1866, i. p. 72 *sq.*, and 46 *sq.*

(b) *Loc. cit.* p. 440.

(c) *Archiv der Heilkunde*, 1864, v. p. 417 *sq.*, and 1865, vi. p. 268 *sq.*

(d) Dr. E. Mannkopff, "Ueber Meningitis Cerebro-spinalis Epidemica." Braunschweig, 1866.

2½ by 4½ inches. 9 a.m.: pulse 52; temperature 99·6°. 6.45 p.m.: pulse 48; temperature 100·4°.

28th.—8.45 a.m.: pulse 52; temperature 99·8°. 2.30 p.m.: temperature 99·7°. 7 p.m.: pulse 44; temperature 99 0°. Ordered ol. ric.

29th.—9.15 a.m.: pulse 48; temperature 98·8°. No more headache. Tongue clean. 6.15 p.m.: pulse 44; temperature 98·8°.

30th.—Slept well until 4 a.m.; afterwards severe headache; at 6.30 a.m. slight shivering commenced, which still continues at 9.40 a.m.: pulse 68; temperature 101·6°. 10.18 a.m.: temperature 101·9°. 2.30 p.m.: pulse 68; temperature 102·1°. Perspires a little. Headache continues. 6·40 p.m.: pulse 56; temperature 101·2°. Skin moist. Has not perspired much.

May 1.—9.15 a.m.: pulse 96; temperature 99 0°. Perspired a little in the night. 3.30 p.m.: pulse 60; temperature 99·2°. 7 p.m.: pulse 48; temperature 99·4°.

2nd.—9 a.m.: pulse 64; temperature 98·5°. Very good night. No headache. Ordered ol. ric. 10.30 a.m.: temperature 98·5°. 6·45 p.m.: pulse 48; temperature 99·4°.

3rd.—9.15 a.m.: pulse 52; temperature 98·8°. 7 p.m.: pulse 68; respiration 20; temperature 100·6°. Some headache since this afternoon, but no shivering.

4th.—9 a.m.: pulse 56; temperature 100·2°. Half diet. Nothing whatever can be detected which might explain the attacks of fever to which the headache seems to be in close relation. There are no other brain symptoms whatever; appetite is good; bowels rather inclined to be costive; urine quite normal whenever examined; headache less to-day than yesterday evening. 3.30 p.m.: pulse 68; temperature 100·4°. 6.40 p.m.: pulse 56; temperature 100·4°. Some frontal headache continues.

5th.—9.10 a.m.: pulse 56; temperature 99·2°. 11 a.m.: temperature 99·8°. 7.30 p.m.: pulse 56; temperature 100·2°.

6th.—9 a.m.: pulse 60; respiration 24; temperature 99·7°. 7.30 p.m.: pulse 56; temperature 99·6°. Is up now all day; tongue quite clean; feels himself quite well, and speaks of leaving the Hospital in a few days.

7th.—9 a.m.: pulse 68; temperature 100·5°. 7.15 p.m.: pulse 52; temperature, 100·0°.

8th.—9 a.m.: pulse 76; temperature 99·2°. 3.15 p.m.: pulse 68; temperature 101·1°; headache since noon. 7.45 p.m.: pulse 64; temperature 100·4°. Ol. ric. cras mane.

9th.—9.10 a.m.: pulse 56; temperature 100·8°. Headache continued all night; it is confined to the supraorbital branches of the fifth nerve. Spleen not larger. Urine, on repeated examinations, quite normal; on the days free from pyrexia very light-coloured, and of low specific gravity (=1009); on the days with higher temperature, somewhat darker; always acid, never a trace of albumen. There is now not the slightest pain in right ankle-joint. Soda discontinued. Ordered quin. sulph. gr ij. bis die; ice-bag on the head. 7 p.m.: pulse 56; temperature 101·5°. Headache continues.

10th.—9 a.m.: pulse 56; temperature 100·5°. Slept little; frontal headache, and pain in the neck; tongue rather coated. 7 p.m.: pulse 60; temperature 102·0°.

11th.—9 a.m.: pulse 56; temperature 101·6°; skin moist. 8.30 p.m.: pulse 56; temperature 99 4°; perspires. Urine, specific gravity = 1020; no albumen. Broth diet.

12th.—9 a.m.: pulse 56; temperature 99 2°. 2 p.m.: pulse 52; temperature 101·0°; headache unabated; was sick in the afternoon.

13th.—9 15 a.m.: pulse 62; temperature 101·9°; slept better in the night; more headache again in the morning; urine clear, of a dark yellow colour, to which the low specific gravity (= 1005) strangely contrasts; no albumen; no clear reaction of colouring matter of bile. The skin has a pale yellowish-grey colour. Ordered quin. sulph. gr. v. o. m.; potass. iod. gr. v. ter die; ol. ric. cras mane. 7 p.m.: pulse 54; temperature 102·2°.

14th.—10.30 a.m.: pulse 64; temperature 98·5°. Headache is much less, but he did not sleep well; tongue much furred; skin not so pale; more tumescent. 7 p.m.: pulse 56; temperature 102·2°. Urine of dark orange colour, contains some albumen; specific gravity = 1025; no clear bile reaction.

15th.—Complains of a humming noise in his head and pain between the shoulders. 9.30 a.m.: pulse 56; temperature 101·2°. 6.30 p.m.: pulse 52; respiration 28; temperature 100·4°.

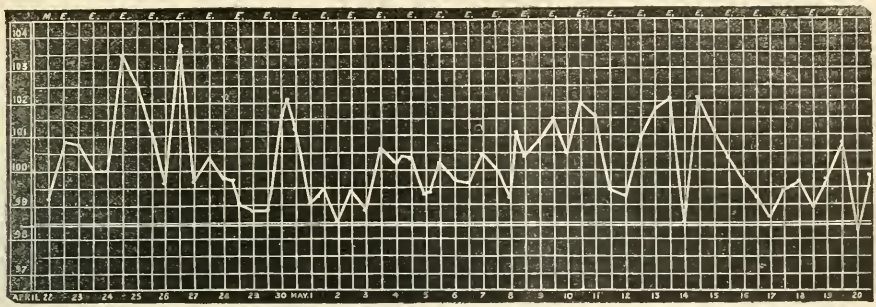
16th.—Talked much in his sleep during the night; perfectly sensible, answers questions rationally; no noises in his head this morning, but pain between the shoulders and in the neck continues. Bowels were open this morning; abdomen sunk in. Skin of a yellowish tint, but not more so than yesterday; flushes slowly when irritated. 500 c.c. of urine since yesterday: specific gravity = 1030; contains a thick red sediment of lithates and a large quantity of albumen. Liver-dulness from sixth rib in mammary line to the costal arcus; left lobe very small; spleen not larger. 10.15 a.m.: pulse 56; respiration 28; temperature 99·6°. 6·45 p.m.: pulse 56; respiration 28; temperature 99·2°. Rather restless; complains of humming in the ears; gets visibly weaker; answers rather confused; voice feeble; does not take food; stiffness of neck. On examination, the processus spinosus of the second vertebra appears rather prominent; pupils quite normal; 560 c.c. of urine since the morning; a great deal of albumen.

17th.—Very restless in the night, picked the bedclothes, and got up several times; headache along the supraorbital nerves, and pain in the neck continues. He cannot bend his head forwards. Pupils of equal size, contracted; no hyperæsthesia on pressure of muscles. 9.15 a.m.: pulse 60; respiration 24; temperature 98·6°. Ordered beef-tea, two eggs, milk, two ounces of brandy, infus. sennæ co. ʒij. 6.45 p.m.: pulse 68; respiration 24; temperature 99·4°. Bowels have not acted; tongue with a thick grey coating, fœtor of the breath. Since yesterday evening 750 c.c. urine of a dark red colour, slightly acid, sp. gr. = 1034; large quantity of albumen, few transparent casts, small aggregates of yellowish very refractive corpuscles, some blood-corpuscles, and a great many crystals, which easily dissolve in acetic or hydrochloric acid—phosphate of lime. The urine contains 0·3 per cent. NaCl, 4 per cent. Ur. His mind gets more and more obscured: did not know his wife in the afternoon. He constantly picks the bedclothes, and laughs sometimes. Eyes and face are more flushed; pupils equal, somewhat more dilated than in the morning. ℞ Pil. colocynth. co. gr. x.

18th.—Played constantly with the bedcurtains during the night, and laughed frequently. He is now lying quite apathetic, and when asked a question he mutters a few unintelligible words in a feeble, trembling voice. Tongue very much coated; pupils of equal size, rather contracted, but act well to light; abdomen continues to be drawn in; bowels have not acted; skin pale, slightly yellow, *cutis anserina* at present. Urine: 750 c.c. since yesterday morning, of port-wine colour, sp. gr. = 1034, much albumen, few blood-corpuscles, no crystals, few clear casts and nuclei. 9.15 a.m.: pulse 64; respiration 24; temperature 99 6°. Ordered elysma c. ol. ric. In the evening more restless; takes the ice-bag from his head; laughs sometimes; no paralytic symptoms; tremor; not the slightest œdema anywhere; forehead covered with perspiration; body dry. 6.30 p.m.: pulse 76; temperature 98 9°. Ordered pot. iod., and quin. discontinued; potass. bromid., ammon. sesquicarb., āā gr. v.; infus. valerianæ ʒss.; ter die.

19th.—Very restless in the night; passed urine and fæces in bed; lies now perfectly quiet; expression of face indifferent; complexion normal; he fixes objects with his eyes; sometimes he moves one arm or the other; mutters some unintelligible words; *subsultus tendinum*; pupils equal, rather contracted, act well to light; no hyperæsthesia; pressure on the prominent processus spinosus does not produce any expression of pain, which it did yesterday; he swallows well. 9.30 a.m.: pulse 84; respiration 24; temperature 99·7°. 6.45 p.m.: pulse 92; respiration 28; temperature 100·7°. Face more flushed; urine passed in bed; had been sick in the afternoon; muscles rigid on attempting to move the limbs, a symptom that in a smaller degree had already been present a few days ago. 750 c.c. urine drawn off with the catheter, sp. gr. = 1032, acid, much albumen, many crystals and casts.

20th.—General state unaltered; face perspires much; urine passed in bed; swallowing more difficult; frequent twitchings of limbs. 10.30 a.m.: pulse 84 (quite regular); respiration 24; temperature 98·2°. Ordered pulv. jalap. co. ʒss. 6.30 p.m.: pulse 88; respiration 28; temperature 99·9°. Bowels acted once; urine passed in bed; left arm and leg almost completely paralysed; slight movements of left forearm still possible; twitchings only on right side; the eyes move also to the right, and during some lengthened observation they never passed to the left of the median line; pupils equal, of normal size, act well to light; the right eyelids appear less open than the left; the mouth as if drawn a little to the left. 11 p.m.: Eyes move continually to the right; the twitchings in the right side continued all night, the left one remaining perfectly quiet. Died on May 21, at 7.45 a.m.



This chart represents the daily variations of the temperature.

Post-mortem Nine Hours after Death.—Rigidity of body not well marked; body pale; abdomen contracted; no œdema; layer of subcutaneous fat thin; muscles of a pale greyish-red colour, rather fragile; fibres taken from pector. maj. and rect. abdom. appear under the microscope very finely granular, but striation perfect. Skull in some parts rather congested; dura matter not particularly adherent; Pacchionian granulations much developed; longitudinal sinus contains some fluid blood; dura mater not congested; pia mater very pale, only the larger veins being filled; considerable quantity of fluid in subarachnoid space; the soft membranes look dim and opaque, especially along the larger vessels, where, in some parts, puriform masses are collected, particularly in the fossæ Sylvii, and round the chiasma n. opt. equally on both sides. Rather a thick layer of puriform exudation on the middle of the lower surface of the cerebellum; substance of brain pale, œdematous; ventricles dilated and filled with turbid serum, puriform matter being deposited in the cornua anter. and infer.; fornix and walls of ventricles more or less softened; blood-vessels at base of brain rather thickened; skull (temporal bones, etc.) everywhere perfectly sound. In the spinal cavity much turbid fluid, slight puriform exudation on the posterior surface of the cervical part of the cord; the prominent vertebra is found to be the epistropheus; there is, however, nothing abnormal to be found either on the bone or on the ligaments. The spinal column was not opened further down, as the lower part of the cervical portion did not present any abnormal appearances. Chest: Lungs somewhat inflated, the right one everywhere adherent, left one free; tissue perfectly healthy; right lobe somewhat congested and œdematous; heart contracted, contains fluid blood in all cavities, and only in the right auricle some fibrinous clots; valves, except some slight old thickening of the mitral, quite normal. Muscle of the heart rather dark, somewhat mottled, and fragile. The muscular fibres present, under the microscope, a very fine granulation. Abdomen: Cavity does not contain any fluid. Liver very flabby, rather small, weighs sixty-two ounces, of light reddish-brown colour, with some paler yellow places here and there. Acini small, but well defined. Under the microscope, the liver cells appear rather small, more round, many of them presenting two nuclei, filled with dark granules, containing but few larger fat drops. Even thin sections appear very opaque through the granular contents of the cells. Ductus choledochus of the size of a small quill, filled with bile, which, on pressure, easily flows into the intestine, which contains some light yellow chyme. Bile thin, of light brown colour. Spleen two inches and three-quarters by five inches and three-quarters, weighs four ounces, rather hard, of dark bluish-red colour, the Malpighian corpuscles well marked. Kidneys rather swollen, flabby, of dark greyish-red colour; right one weighs seven ounces, left one six. Capsule can be easily detached. Tubuli of cortical substance much dilated by enlarged epithelial cells filled with dark granules; in the pyramids the cells are less granular. Small granules are also contained in the interstitial tissue. Glomeruli very large and dark. Suprarenal capsules quite normal. Bladder contracted. Testicles normal. Mesenteric glands rather large and hard. Mucous membrane of the intestines in places injected; the glandular apparatus somewhat pigmented. On the mucous membrane of the stomach a few small ecchymoses.

Remarks.—The case presented during the first week extreme difficulty of diagnosis. It was first taken as a case of subacute rheumatism, and this diagnosis became only somewhat shaken when, on April 24, the apparent improvement was interrupted by a shivering fit. The case became still more obscure when, after a remission of a day, another febrile attack followed, which was succeeded by a remission more complete and of still longer duration. A careful and frequently repeated examination of the patient did not reveal any organic lesion to which these febrile attacks might have been referred. It was thought there might be an abscess somewhere—for instance, in the liver; but this was a mere hypothesis. The headache pointed to the brain; but all other brain symptoms being absent, it was rather thought to be caused by the pyrexia than by any special organic lesion; for, although the patient had suffered from it from the beginning, it was at times quite absent, at other times slight, and severe only when the temperature of the body considerably rose—in short, its intensity presented a marked relation to the degree of temperature recorded by the thermometer. In the further progress of the case, however, the true meaning of this symptom became clear, and the coincidence of the headache and the febrile attacks seems to point to a dependence of both these symptoms upon the inflammatory alterations which were then starting or progressing on the membranes of the brain, although this dependence of pyrexia upon the local affection is here not so evident as in a case from which Ziemssen(e) concludes "that febrile attacks in the first and second week of illness are to be considered as the expression of the local progress of the inflammatory action in the meninges." In that case each attack of fever left some alteration behind—stiffness, for instance—in some part of the spinal column, as a mark of what had taken place in the affected parts, whilst in our case an almost complete remission followed, so complete, indeed, that after the third attack of fever the patient was apparently convalescent, and intended soon to leave the Hospital.

Although the patient denied having ever suffered from a syphilitic affection, and although all conclusive signs were absent, still the enlargement and hardness of the cervical, cubital, and other glands appeared rather suspicious, and on this suspicion principally he was given the iodide of potassium

More definite symptoms made their appearance only about five weeks after the commencement of the illness; but then soon all doubts with regard to diagnosis disappeared, meningitis being clearly established. The question naturally suggests itself whether the meningitis may not have been simply the final complication of some other disease; but no other disease has been found which might have accounted for the symptoms during the first weeks of illness, and the comparison with cases observed by others leaves now no doubt in my mind that it was meningitis from the beginning, although its cause remained perfectly obscure. The slow progress of the disease, and the frequent and almost complete remissions of all symptoms, are certainly very remarkable, and prove a considerable tolerance of the brain, but similar instances have been met with by other observers. The meningitis was in this case principally cerebral, the membranes of the spinal cord being only involved in its cervical portion.

A look at the chart representing the daily variations of the temperature will save all further remarks on this point. It

(e) *Loc. cit.* p. 405.

fully bears out the experience of the observers quoted above. I regret that no observations were taken in the last hours before, and immediately after, death, as in some cases of cerebro-spinal meningitis observed by Wunderlich a considerable increase of temperature took place *in agone*. It is not improbable that in those cases in which no abnormal elevation of temperature is reported to have been observed at all, it might have been found if an observation had been made near the time of death.

The comparative slowness of the pulse throughout the illness is, no doubt, to be considered as one of the most important and one of the special symptoms of the meningitis in this case. It was very remarkable that the pulse, sometimes abnormally slow, did not at all increase in proportion to the temperature. Wunderlich and Mannkopff have observed the same—viz., normal frequency of the pulse, with very high temperature—in some of their cases, and consider it to be a symptom of great importance. In our case the pulse, even twelve hours before death, was not more than 88.

It is further worth mentioning that there was no sickness in the beginning, vomiting taking place only on two days. when the symptoms of meningitis were already quite developed.

Another remarkable feature of this case was the state of the urine, and the rapidity with which changes took place in its condition—a peculiarity which has also been noticed by other observers. The urine presented at one time a very low specific gravity, though not so low as in one of Mannkopff's cases. From that time a very marked change took place, the specific gravity rapidly increasing, and albumen appearing first in small, then in very large quantity, with casts and blood corpuscles. The abundant sediment of phosphate of lime in a crystalline state is also of rather rare occurrence; and, although several observers state that the urine contained an increased quantity of phosphates, I have not met with any account of a sediment similar to ours in this disease. I do not find in my notes any memorandum whether the urine had been tested for sugar; but I think it had been examined, and none was found; still, I am not quite certain on that point.

Finally, allusion may be made to the rheumatic symptoms in the beginning and to the peculiar transitory eruption on the skin of the legs, which was present only on one afternoon, as symptoms which form further points of resemblance to the epidemic form of cerebro-spinal meningitis.

NOTES ON THE HISTORY OF SYPHILIS.

By GEORGE GASKOIN,
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THERE are three sets of opinion as to the origin of syphilis which divide the Medical world in the present day. The first is that it originated in an epidemic. This supposition owes the larger share of its success to the brilliant pen of Ribeiro Sanchez, and may, in brief terms, be characterised as mistaken in its premises, extravagant and unsound. The second line of opinion, which seems to enjoy some favour in this country, arises from the suggestion that syphilis may have existed among us from all antiquity, and there is much in this theory that is plausible, but the evidence produced in support of it is too meagre to afford satisfaction. The third opinion embraces the conclusion that syphilis was introduced into Europe through the discovery of the Western world by Columbus; supported by much strong evidence, it has been stigmatised as defective and incomplete. It may be as well, therefore, to consider in what degree this accusation is merited, how far it has been lightened by modern research, and what there is wanting to make it as convincing as any recorded historical fact can pretend to be.

The first we hear of *morbus gallicus* in Europe is at Barcelona. Niccolo Scillazio,(a) a Messinese traveller, writing on June 18, A.D. 1494, says—"On my arrival at this port, which is a flourishing city in Spain, I really shuddered at the view of so many victims of contagious disease. In my conversation with Physicians, for which I had ample opportunity during the whole of my journey, they assured me that this new complaint was derived from truculent France. At first I believed it to be the saphati of Avicenna; in France they name it the disease of St. Semente among the vulgar. It lasts a year and more, and begins in the private parts." And then this Sicilian, faithful to the traditions of his country, breaks out in fierce invective against the French. "Once more," he says, "from France."

A passage from the work of Torella,(b) Spanish Physician to the pope, Alexander VI., may serve to throw some light upon this subject. "The Valencians," he says, "the Catalans, and Aragonese, after long rummaging of books, have called this complaint the disease of Saint Semente, because they found it written in the 12th chapter of the 'Christian Man,' published by the excellent Francesco Ximenes, that a disease of like nature had in other times infected the world . . . and that in fact the disease therein mentioned is frequent and of old date in the kingdom of France; so that just as the leprous are called lazars by the populace in memory of the sufferings of Saint Lazarus, so in like manner the French call the *malum mortuum* the disease of Saint Semente, because by his intercession many are cured." And then he goes on to say that the saint died, etc., in great veneration in Britain. Now *simiente* in Spanish means nothing else than germ or seed, and the prefix is one of derision. We see, then, on what poor grounds the vulgar were led to suppose that this disease came from France, misled by the erudition of a priest.

Let us now consider what a judicious Spanish Physician says about this complaint (which he calls by a somewhat fanciful name borrowed from the pages of Pliny). Diaz de Isla writes thus:—

"It has seemed agreeable to Divine justice to send us diseases hitherto unknown, entirely new, and never before read of in books of Medicine. Such was this Serpentine disease which first showed itself A.D. 1493 in the city of Barcelona, which city was first affected, and subsequently all Europe, and after that the known world in every part and inhabited region thereof. This disease had its origin and birth from old in the island now called Hispaniola, according as is known from general and sure experience. And according as this island was discovered and named by the Admiral Don Christopher Columbus, exercising at the present time official and other communications with its inhabitants (*al presente teniendo platica y comunicacion con la gente della*), and from its being of its proper nature a contagious malady, these were naturally subject to it, and it soon appeared in the fleet; and from the fact of its never having been seen or known before among the Spaniards, they attributed it to the hardships of the sea, and to several causes, each man according to his own conceit. Now, at the time that the Admiral Don Christopher Columbus arrived in Spain, their Catholic majesties were in the city of Barcelona, and when he had to give an account of his voyage, and of what he had seen, there then began to infect the city, and to spread, this infirmity, such as we have since known by extensive experience, and as it was a new disease, and of a frightful character, those who had news of it began to fast and to pray, and to put up prayers that our Lord might save them from falling into such a condition."

Now, this circumstantial account bears the appearance of having been penned at some date before the death of Columbus, A.D. 1506; and some would say, before his return from his last voyage to a neglected existence in Spain, A.D. 1504. But the objection stares us in the face that Columbus disembarked at Palos, some fifty miles south-west of Seville, whither he was bound, and whence he took his journey to Barcelona overland, leaving the greater part of his crew behind him. As to the journey overland, there is an entire absence in history of any detailed account; it will be better, therefore, that we take counsel of our reason as to its truth. According to Zuniga, the wholly reliable annalist of Seville, Columbus cast anchor before that city and entered it in the "first days of April." "He was prepared," says his son Fernando, "to start from thence to Barcelona." The gracious letter from his sovereigns, commanding his presence at court, bore the date March 30. On receiving it he "continued on his way." Columbus arrived at Barcelona in the middle of April. The precise words at the end of his diary on reaching Spain are: "Although I intend to go to Barcelona by sea." A journey over 200 leagues of land in an unsettled and mountainous country so lately the seat of war, with an embarrassing *cortége* and treasures in gold exaggerated in the report of the vulgar, could not have been performed within the time. The fact presents itself as a complete physical impossibility. He must, then, have gone by sea. The entire want of detail as to the journey in the account of Ferdinand Columbus allows scarce any other interpretation to this part of his narrative. As to its inconclusiveness, we must recollect that his work has come

(a) *Lettere di Thiene*, p. 236. Venezia. 1823.

(b) See his work on *Pudendagra*, 1506, in the collection of Luisini, *Aphrodisiacus*, p. 502, ed. Boerhaave, A.D. 1728.

down to us in a translation by an Italian hand, the original being lost. The amplifications of his text in subsequent compendiums are worthy of no respect. His father's triumphal entry into Spain, as set forth in delusive colours by Charlevoix and Washington Irving, may have been true as to the character of his reception at Seville, but no further. Fernando was at that time a mere child. In some things of his history this generally truthful writer shows a bias which is not that of simplicity, as when he ignores all knowledge of his father's parentage, and even the existence of syphilis, which he must have known of perfectly well, but which he only once mentions quite incidentally. Some few instances of error and of exaggeration may be pointed out in his work, but he is more worthy of confidence than the two authors above mentioned. Columbus was a thorough seaman. He liked to have an eye on his command. A generous offer had been pressed on him by the king of Portugal, of horses, servants, lodgings, money, everything at the royal expense, if he preferred to return to Spain from Lisbon overland. The offer, however, was declined by Columbus, notwithstanding his recent rough usage by the sea. But some will say, How is it that Seville did not suffer from the malady, although Columbus tarried there a fortnight on his return from Haïti? It is best to confess that little is known beyond the fact that the municipal archives of Seville, which might inform us on this point, are in too great a state of confusion to tempt any but the most enthusiastic investigators. Those who have made inquiries on the subject have received assurance from honourable persons that there are papers which substantiate the very early existence of the disease in Seville, but they lie buried among a mass of documents, and they have never yet been examined with this intention. Our authority for this assertion is Dr. Bonifacio Montejo, of Madrid, to whom, above all others, honour is due for investigation in this field of inquiry. Dr. Montejo has published in the 363rd number of the *Siglo Medico*, December 16, 1860, data which serve to prove that as early as the year 1502 there was a Hospital set apart for the treatment of the syphilitically affected in Seville, and that the disease was called "*serampion de las Indias*," "because," as the record says, "when this Hospital was built there was no such disease, for it only became known after the discovery of the Indies in the year 1492." And a Sevillian Physician, the world-known Monardes, writing in the year 1580, says, "Others call it '*Serampion de las Indias*,' and very justly, because it came from thence." Diaz de Isla, who long practised Medicine in Seville, must have known all particulars of the truth. Our conclusion is, that all engaged in the first expedition, amounting to about a hundred persons (including Indians), pressed men for the most part, and of loose character, and some of them even convicts, now all at once heroes of the hour, arrived in Barcelona with Columbus in the middle of April, 1493, to receive the largess of their sovereigns.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 9.)

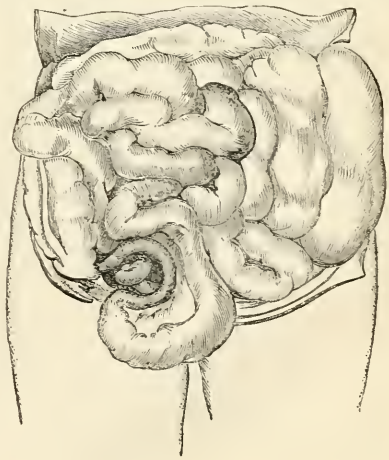
Case 88.—*Adherent Multilocular Cyst—Ovariotomy—Cautery and Ligature—Death on Twentieth Day from Obstructed Intestine.*

A SINGLE woman, 35 years old, was sent to Mr. Wells by Dr. Giles, of Oxford, and was admitted to Hospital in March last. The whole abdomen was filled by a multilocular ovarian cyst. The girth was 42 inches, measurement from umbilicus to sternum 10, to pubes 11, to right ant. sup. spine of ilium 10, and to left 12¾ inches. The uterus was healthy, and its mobility free. The growth had been first observed in October, 1865. Increase had been slow at first, but more rapid since January, 1867. Since the growth had commenced, the catamenia had recurred at shorter intervals and in greater quantity, and pain had been generally violent for three or four days before each period commenced. As there was no cyst large enough for any relief to be gained by tapping, ovariotomy was performed on March 27. An incision 6 inches long was made between the umbilicus and pubes, some extensive recent adhesions were easily separated by the hand, the largest cysts were successively tapped or broken up and emptied, and the whole tumour removed. A pedicle, 2 to 3 inches broad at its narrowest part, and about one-third of an inch thick, connected the base of the tumour closely to the right side of a small hard uterus, of irregular shape from a fibroid nodular outgrowth. A cautery clamp was applied, and the pedicle separated by hot irons. On opening the clamp, the compressed and seared pedicle appeared at first quite secure. But as the pedicle was slowly separating from the blade of the clamp to which it adhered, three vessels bled freely. These were tied, and then, as there was some oozing of blood all along the line of eschar, Mr. Wells transfixed the pedicle close to the uterus, tied the pedicle in two halves, and allowed it to sink into the abdomen, after cutting off the ends of the ligature short. Scarcely any sponging was necessary, as no ovarian fluid had entered the peritoneal cavity. The left ovary was healthy. Eighteen pints of colloid fluid were removed, and the more solid portion of the tumour weighed five pounds.

On examining the root of the tumour after removal, seven or eight arteries as large as a crowquill were observed entering the tumour and forming numerous corkscrew-like ramifications. Dr. Junker found a number of yellow tubercles imbedded in the stroma of the tumour—both in the periphery and near the base—separate, as minute yellow and greyish-yellow spots; and confluent, of the consistence of cheese.

The state of the patient after operation was unsatisfactory from the first, but there was not much pain. Some sickness on the day after operation increased on the second day, and the abdomen became tympanitic. On the third and fourth days the vomiting continued, a great deal of dark green or coffee-coloured fluid being thrown up. A free fluid motion was followed on the fifth and sixth days by some improvement, although the vomiting of large quantities of greenish fluid continued. On the seventh morning the patient appeared much better; but in the evening the pulse was 160, and she appeared almost moribund. Five grains of quinine were given every three hours by mouth and rectum. In sixteen hours 35 grains had been given, and on the eighth day the pulse had fallen to 120. In the next ten days she improved in many respects. There was no vomiting, but she suffered at times with abdominal pain and much flatulence. On the nineteenth day she appeared remarkably well; but at night, after a free watery motion, she suddenly became faint and sick, and died suddenly on the morning of the 20th day.

The wound was found firmly united. There were scarcely any traces of general peritonitis. No intestine was adherent near the wound, but one coil slightly adhered above the umbilicus. The uterus was small, and had a fibroid nodule the size of a marble projecting from its fundus. The left ovary was healthy. The pedicle of the tumour of the right ovary was closely surrounded—as shown in the accompanying engraving, copied from a drawing made by Dr. Junker—by



an adhering coil of the ileum just before it enters the cæcum. About an ounce of pus was circumscribed by this adhering intestine around the end of the pedicle, so that none of the pus entered the peritoneal cavity. The canal of the adhering coil of intestine was almost completely obstructed, partly by the sharp curves at which it was fixed, and partly by the contraction of the adhering portion, the intestine above being much distended. There was neither blood, lymph, nor serum in the peritoneal cavity, nor could any tubercular deposit be found.

Mr. Wells, in some remarks on this case, expressed his opinion that obstruction of intestine is more likely to occur when the pedicle is returned after either the ligature or the cautery than when the extra-peritoneal method by clamp or ligature is adopted. The danger of strangulating intestine has been spoken of as a danger peculiar to the extra-peritoneal methods, a coil of intestine being compressed by the pedicle. But he thinks that such accidental compression will probably prove to be a much rarer occurrence than obstruction by coils of intestine adhering at sharp angles around the end of a pedicle which has been cauterised or tied and returned within the peritoneal cavity.

Case 89.—*Multilocular Cyst—Eight Tappings—Ovariotomy—Recovery.*

An unmarried lace-worker, 31 years old, was sent to Mr. Wells by Dr. Massey, of Nottingham, and was admitted in March, 1867. A large ovarian tumour filled the abdomen, and encroached on the thorax. The girth at the umbilicus was 49 inches; from umbilicus to sternum, 14; to pubes, 12; to right ilium, 14; and to left, 19 inches. She had been tapped six times between June, 1866, and February, 1867. At the last tapping, on February 16, 42 pints of fluid escaped. The quantity had previously varied from 34 to 40 pints. The catamenia had not appeared since March, 1866. Before that time they had been regular. The suppression followed a cold hip-bath, into which she was put while menstruating. A rash came out on the skin soon after, and had never left her since. On the face it was acne; in other parts, pityriasis. The tumour was first noticed in July, 1865.

She was so much distressed by her journey to town that immediate relief was necessary, and 46 pints of viscid fluid was removed by tapping on March 19. On the 28th she went to the Convalescent Hospital at Eastbourne, and returned on April 15 much improved in general health, but very large. On April 17 she was tapped for the eighth time, 44 pints of fluid being removed. A semi-solid tumour remained, filling the abdomen below up to an inch above the umbilicus centrally, and on the left side extending up under the false ribs. The tumour could be felt close to the uterus in front, but the uterus was tolerably movable.

Ovariotomy was performed on May 2. Dr. Keith, of Edinburgh; Professor Gusserow, of Zurich; and Dr. Seust, of Coblenz, were present. A large cyst was tapped and emptied, some smaller cysts broken up and emptied, and the whole tumour removed, after separating some adhesions to the abdominal wall, through an incision 5 inches long, without any of the contents of the ovarian tumour entering the peritoneal cavity. The pedicle was secured in a small clamp between two and three inches from the left side of the uterus. A vessel behind the clamp bled and was tied, and the tied part was fixed by the ligature to the clamp. The right ovary was healthy. The wound was closed, as usual, by silk sutures. The fluid removed was 28 pints. The more solid part of the tumour weighed 9 lbs. No bad symptom followed the operation. Thirty-five minims of laudanum by injection, and some citrate of potass, were the only medicines required. The bowels acted on the eleventh day. The clamp and ligature came away on the twelfth day, and the patient went to Nottingham twenty-seven days after operation. Dr. Massey has written to say that since her return she has been quite well, and the catamenia, which had not appeared since March, 1866, had come on quite naturally.

(To be continued.)

NORFOLK AND NORWICH HOSPITAL.

CLINICAL REMARKS ON NEURALGIC PAIN OF THE SIDE.

(By PETER EADE, M.D. Lond., M.R.C.P., Physician to the Hospital.)

(Concluded from page 36.)

In connexion with these lateral neuralgias I would here just allude to a class of painful local affections not unfrequently met with amongst Hospital patients, where the subject, generally a labourer, is admitted for what he calls rheumatism, but which turns out to be a mere neuralgic affection, and which, like these painful disorders of the side, is really the expression of an overworked and exhausted condition of the muscles, and of the nerves supplying them. It is seen in the muscles of the arms, chest, back, and especially the legs and the joints of the lower extremities; and whilst it is untouched by the ordinary anti-rheumatic remedies, it readily yields to rest, good diet, vegetable and mineral tonics, and perhaps mechanical support. Patients suffering from this class of ailment are not unfrequently sent into Hospital with the odium attaching to them of being malingerers, rather, as it has sometimes seemed to me, because they have shown no marked symptoms of disordered health beyond the pain and weakness they state they suffer from, and because of the inefficacy of the medicines employed to produce a cure, than from any valid reason for such a suspicion. But these patients do obstinately persist in stating themselves to be unable to work, because really they feel themselves unequal to it, and because their muscles, exhausted by daily and too prolonged labour, become really weakened and incapable of further effort, and refuse to do the bidding of the will, because physically unequal to further active exertion.

No doubt real malingerers are met with, but I have seen several examples of men so classed who have gradually and steadily recovered in Hospital, and in whom the incapacity to work was unquestionably real, and not the mere effect of a wanting will, and who readily enough resumed their employment when rest and treatment had restored their physical power.

The *actual condition* of the aching nerves in these cases of lateral pain can fortunately only be inferred; for as the affection is one which is rarely fatal, and, indeed, never so, unless some other more serious disease is engrafted upon the disorder which produces it, so opportunities rarely occur of ascertaining their pathological state by post-mortem examination. There is, however, no doubt that the painful peripheral twigs of nerve are, like the rest of the nervous system, in a state of atony; hence arise relaxation of the blood vessels, congestive fulness, imperfect nutrition, a flabbiness or softness of the nerve-tissue, and then depravation of function, and hyperæsthesia. But as this atonic condition of the nerves is doubtless present more or less in the whole body, as well as in the lower intercostal nerves, the question arises why these nerves suffer more than the others, and why the pain should always be felt in the side even when also present elsewhere. To these questions a very distinct answer cannot perhaps be given, but if we look at the class of affections in which this pain is mostly met with, we shall see that a large majority of them are more or less connected with imperfect uterine action, and although it is quite probable that the disordered uterine function itself may often as well as the pain be merely symptomatic of some more remote cause, yet the connexion between the two is so frequent as to justify their being looked at together.

Many explanations of this lateral pain have been attempted by writers on the subject, who have vaguely and variously referred it directly to sympathy with the uterus, to excitement of the sympathetic system, to general anæmia, etc. Very recently Dr. Martyn (*British Medical Journal*, 1864) has endeavoured to show that it is a reflex neuralgia, induced by, and expressive of, some distress in the heart; and he gives details to show how such a causation might be anatomically probable. But my observations tend rather to show that a true neuralgia of the heart does exist which is quite a distinct affection from the one we are considering, and that with this cardiac neuralgia, whilst there is pain distinctly referred to the heart, infra-mammary pain is rather the exception than the rule; and that, on the other hand, with uterine or other constitutional irritation, it is almost universally present. Moreover, such an origin would hardly account for the widely diffused pain and tenderness so often felt not only along the side, but over a large portion of the dorsal spinal region. Looking, therefore, to its close connexion with, and almost constant presence in, uterine and ovarian disorders, and its relation to those faults of the blood which so continually eventuate in them, and bearing in mind also the light which the researches of Drs. Marshall Hall and Brown-Séquard have thrown upon reflected nervous affections, I am more inclined to the opinion expressed by the late Dr. Todd in his clinical lectures, and by others, that this pain is virtually merely the reflected expression of an uncomfortable and irritated uterus or ovary, the irritation of which, passing along the hypogastric

plexus and sacral nerve to the spinal cord, is then reflected along it to one or more of the intercostal nerves, in which, as is usual, the depraved sensation is felt at the peripheral extremity. This would thus form a generative sympathetic arc or circle, with one extremity formed by the peripheræ of the uterine nerves, the other by those of the intercostals; the fact that the pain of the back when present is rarely felt lower than the ninth or tenth dorsal vertebra being explained by our knowledge of the fact that the spinal cord usually ends at about the level of the tenth or eleventh vertebra, and divides here into the nervous cord forming the *cauda equina*—in other words, it ceases here to be a sensitive or sensory nervous centre, and becomes only a conducting body. Why the pain should generally be felt in one side only, and that the left, is a problem perhaps yet unsolved, although the nervous relations in the chest described by Dr. Martyn may perhaps be the real anatomical cause of it; and I can see no reason why his explanation of the localisation of the pain through the peculiar relations and distribution of the sympathetic and intercostal nerves should not be equally true, whether the exciting eccentric cause be seated in the thoracic or the pelvic cavity. I have tried, but failed, to discover any greater tenderness (when any exists) in one ovary or side of the uterus than the other—a tenderness which, on Brown-Sequard's theory of the decussation of the sensitive fibres in the spinal cord, should be looked for usually in the right rather than in the left flank.

It is remarkable that whilst leucorrhœa (the connexion with which was especially pointed out by Dr. Todd) and other chronic uterine and ovarian affections induce this pain, that gonorrhœa, also a disorder accompanied with constant discharge, but which is a vaginal and not a uterine affection, does not give rise to it; and the same is the case with chronic catarrhal and other disorders of the bladder. When any secondary nervous symptoms do result from these causes, they are observed not in the upper part of the body, but in the lower extremities, the lesion being paraplegic, and the reflex action being then induced in another arc, with the nervous circle composing it on a lower level of the body, and the direction of the nervous current reversed.

It is also to be noticed that men who spend their days in the most sedentary occupations, and often in a most confined atmosphere, do not suffer from this pain of the side as women so confined and so occupied do. Shoemakers, for example, suffer much from epigastric sinking and uneasiness, irregular action of the heart, and hypochondriasis; but, unless other causes are superadded, they do not suffer from disorder of their generative organs; nor do they complain of intercostal pain or tenderness, nor yet spinal symptoms. Tailors, again, who often work under conditions not very dissimilar from those of milliners and dressmakers, and often get almost similarly ætiolated, do not suffer from this form of pain as these latter do. It is necessary, therefore, to look for some other cause as active in producing it, and there seems little reason to doubt that the uterine nervous system in a state of continued irritation is this cause.

But, although this pain is so unfrequently met with in the male sex, yet instances are occasionally seen of its occurrence in them, and I have met with several examples of male patients who have complained of abiding pain in one or other side not to be distinguished from that seen in women. Such patients are generally of a nervous, excitable, or, indeed, of truly hysterical temperament, whose emotional system has been excited unduly and beyond its power of resistance. A somewhat similar pain is also occasionally met with in weakly men who have exhausted the nervous energy of their intercostal muscles by too great or too prolonged muscular exertion of the chest, and is notably seen in clergymen, public speakers, and others, who make great efforts in the public exercise of their vocation.

Neuralgic pain of the side is but a symptom of disease, and not only so, but it is a symptom which may arise in the course of many different, though perhaps allied, diseases. To speak exhaustingly, therefore, of the remedies proper for this pain would be to compose a treatise upon those means, mental, moral, hygienic, and medicinal, which are appropriate to the numerous conditions of disordered health in which it occurs. This is not the object of these remarks, and I will only observe that a glance at the list of causes, and of the morbid affections with which it is associated, will suggest a large proportion of the means essential for their and its removal. Thus, according to the special circumstances of the case, a good or improved diet, change of scene, sunlight, cold sponging or bathing, shower-baths, frictions to the skin, daily and appropriate walking exercise in the open air or on horseback, cheerful society and occupation, the avoidance of close and heated rooms and of late hours, or of too much emotional excitement, with means directed to the quieting and soothing of an overwrought body or mind, may all in their proper place conduce to recovery.

So, again, some one or more of the various nervine tonics or alteratives may contribute to its removal by restoration of the general or uterine health. Such are ammonia, valerian, assafœtida, camphor, steel, quinine, strychnine, acids and alkalies, iodine, bromine, cod-liver oil, etc. etc. Vaginal or uterine injections, or mechanical appliances, will also in appropriate cases be useful. Locally, more or less relief will be obtainable from the judicious use of warm fomentations, either simple or medicated; of belladonna or opium plasters; of liniments of opium, belladonna, aconite, or chloroform; of epithems or blisters of chloroform; and occasionally of blisters, sinapisms, leeches, or ice-bags. Belts or bandages to the side and mechanical supports to the spine will also be occasionally of service.

My own special experience of the treatment of the disorders in which this pain occurs, and therefore of the pain itself, may be summed up as follows:—That steel is usually essential (except there be pure active hysteria with plethora, or acute suppression of the menses in otherwise healthy subjects), and that its efficacy is much increased by the addition of a little aromatic spirit of ammonia, or of what is often better, the ammoniated tincture of valerian.

That where there is obstinate amenorrhœa, the addition of a grain or two of iodide of potassium to each dose of the steel mixture is often extremely beneficial.

That where ovarian excitement predominates, camphor and henbane in pills, bromide of potassium with steel and valerian, and chloroform blisters, or perhaps leeches to the flanks, will be found most useful, and that where, with general debility, leucorrhœa is the existing form of uterine disorder, a combination which I have used largely in private as well as Hospital and Dispensary practice will often be found singularly efficacious. The following is my formula for this chalybeate mixture: — ℞ Tinct. ferri sesquichlor. ♏ xv.; acid. nitric. dil. ♏ xv.; magnes. sulph. ʒss.; tinct. aurantii ♏ xv.; aquæ ad ʒj. M. ft. haustus bis vel ter in die sumendus. When much weakness is present, a little quinine or tincture of nux vomica is a useful addition to the draught. The *rationale* of its beneficial action would appear to be that in many of these cases there is a sluggish state of liver, which increases the passive retardation of the abdominal circulation that already exists from the very nature of the affection; that the combined effect of the sulphate of magnesia and nitric acid is to disgorge the liver of its bilious matters, and so to relieve its general and portal congestion, and by its secondary action on the bowels to stimulate alvine secretion as well as evacuation, at the same time that, by thus relieving the portal as well as general abdominal circulation, it enables the pelvic veins more readily to empty themselves, and thus to diminish the passive uterine and ovarian congestion which doubtless is often also present in these cases, the steel and other tonics further improving the state of the blood, and so secondarily giving tone to the nervous centres and to the uterine nerves and fibres. But whether or no this be the proper explanation of its action, certain it is that it is a most useful medicinal combination, and often does great good where steel alone or in other forms has been given in vain. Its mode of action must be somewhat that of the morning dose of sulphate of iron and sulphate of magnesia recommended by the late Dr. Rigby, but it has the advantage over it of being less unpleasant, less voluminous, and, being given in smaller doses, of acting more gradually. It is also an equivalent, but in my opinion far preferable, to the combination of sulphate of iron and sulphate of magnesia in common use in the London Hospitals.

Locally, leeches (when applied either to the side or to the spine) often relieve at first, but the relief given is seldom permanent, and they frequently leave a disagreeable sensation of weakness, but they are sometimes distinctly of service when applied over the ovaries or in the groins. Sinapisms and blisters are often useful, but, in my experience, are more efficacious at a late period, when steel and other remedies have been for some time persevered with, and then a blister will sometimes at once and completely remove the pain.

Belladonna plasters worn continually on the painful side or in strips down the back are often of much use; opium or belladonna liniments are less to be relied on. Chloroform, applied as a rubefacient or as a blister, sometimes relieves

markedly, and hot poppy fomentations will often prove of great advantage when applied for some length of time in cases where the pain is severe or shooting in character. When the spine is a principal seat of pain, and the patient suffers from undoubted spinal weakness, a mechanical support, after the fashion of the instrument made by Pratt or of that recommended by Dr. Dick, may sometimes be of great service. It only remains to allude to the employment of subcutaneous injections of morphia or belladonna, or of the local etherisation of the aching part by Dr. Richardson's apparatus in those rare cases in which the pain is sufficiently severe to necessitate the having recourse to more potent sedatives or anæsthetics.

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Medical Times and Gazette.

SATURDAY, JULY 20, 1867.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF PHYSICIANS.

It is a most ungrateful and wearisome task to have to give expression year after year to the surprise and dissatisfaction excited throughout the Profession by the annual election of Fellows of the Royal College of Physicians. We ought all, perhaps, to have got accustomed to the anomalous and inexplicable character of the proceedings, and of the list of names presented each year to the Fellows for election, but they do still cause surprise, as well as murmuring and discontent. We are not now about to repeat all the arguments by which we last year urged on the Council of the College the reasonableness and sound policy of a more just, generous, and liberal admission of its Members to the honour and dignity of the Fellowship, for it is a weariness to the spirit to repeat arguments where argument and reason seem to be simply ignored. But so long as the College persists in its present illiberal and short-sighted conduct in this matter, it is plainly our duty to protest against it in the strongest manner possible. The Profession at large is interested in the good management and prosperity of the entire College, in all its grades and divisions, and we cannot stand by silent while the Fellowship election is conducted as if the corporation were merely a social club or a close borough. We have looked and hoped for reform on this point from the authorities of the College itself, as other reforms have lately been initiated within its walls; and it did at one time appear as if the Fellows intended to take the subject in hand, but this prospect has faded away, and it now looks very much as if they lacked the courage or the wisdom to enforce any change, and as if the only chance of any improvement lay in pressure from without.

The list of Members admitted to the Fellowship this year is, to say the least, as limited in number and as unsatisfactory in nature as ever. The by-law regulating the election of Fellows provides that they shall be chosen from Members of four years' standing who have distinguished themselves in the practice of Medicine, or in the pursuit of Medical or general science or literature. It would not be easy to define exactly the terms of this by-law, but certainly, looking at the present constitution of the College, and the position of its Members, placed between the Fellows and the Licentiates, it ought to be interpreted with considerable liberality, as well as with impartiality; and "distinction in the practice of Medicine" may, perhaps, be not improperly held to mean success in obtaining an extensive practice and an appointment in a royal household; while prominence as a pupil and exponent of A. Comte's positivism may also, perhaps, be fairly considered as "distinction in general science or literature." But we do not intend on this occasion to examine in detail the claims of the fortunate elect to the Fellowship, or the claims of those passed over, though the conduct of the College may impose so distasteful a task on us in the future. We will only observe, further, that, while some of the Members chosen out for distinction appear, to the uninitiated, to have merited it long ere this, others seem not to deserve it nearly so well as many who have been again passed over.

We once more entreat the College to be wise while there is yet time, and to adopt in this respect a policy which will conduce more to its prosperity and well-being, and to the assurance of that pre-eminence, esteem, and consideration which ought to belong to the Royal College of Physicians of London. There are amongst its Members many men of unblemished character and reputation, who have for years been diligently, quietly, and unobtrusively doing good and solid public and private work, who are an honour to the Profession, and would honour and adorn the roll of Fellows at least as much as many already on it, but whom, year after year, the Council pass over without notice or reward. This is, we submit, a most shortsighted and reprehensible policy, a grave discouragement to sterling modest merit, the cause of much discontent and dissatisfaction, and a most serious injury to the College itself.

THE ST. ANDREWS GRADUATES AND THEIR ENFRANCHISEMENT.

The Medical graduates of St. Andrews continue to push their claims for equality with the graduates of the other Universities in a manner as forcible as it is temperate and just. On Monday last a deputation of the Graduates' Association waited on Sir Graham Montgomery at the Treasury Office, to lay before him their cause, and to beg that the terms of the thirtieth clause of the Scottish Reform Bill might be so enlarged as to enfranchise all graduates of St. Andrews who had obtained their degrees by examination. The graduates naturally feel indignant at the fact that they are proposed to be set aside on the pretence that they obtained their University honours by the mere payment of money. In Medical circles such an argument would, of course, lose all weight from its gross and wanton falseness, but with the world outside the insinuation is unquestionably most injurious. At the deputation Dr. Richardson put this matter pointedly forward. It is not, he said, altogether for a political right the graduates appeal, although that is of lively interest; but it is also for a social standing which they have justly earned they demand recognition. There are now twelve hundred graduates, men of education, many holding important offices, and all performing important duties. They have submitted to a fair test of learning; they have received legally a degree; they have paid the State many thousands of pounds for their privileges, and it is not for a moment pretended that they, as Doctors of Medicine, are less informed than their brethren of the other Universities. But to disfranchise them and to enfranchise all other graduates would suggest some disqualification or cause for disqualification which would be positively disastrous to those who hold the degree. It would provoke the derision of rivals, and it would fasten on the public mind foolish doubts and suspicions which no protests could remove. A letter addressed by Inspector-General Leonard to Sir John Pakington was likewise read, in which the Inspector-General showed

that the disfranchisement would act in a similar way injuriously on those officers in the service who had graduated at St. Andrews.

In further support of their claim, the members of the deputation placed before Sir Graham Montgomery the subjoined facts bearing on the social *status* of the Medical representatives of the University :—

"The proposed new Reform Bill for Scotland, which provides for the representation in Parliament of the Universities of Edinburgh and St. Andrews conjointly, will practically exclude from the franchise all graduates of St. Andrews who obtained their degrees before January 1, 1863. This exclusion is based mainly on the assumption that these graduates were not examined for their degrees, but obtained them by purchase. As such an impression, which by the Medical world is at once recognised as entirely and wantonly false, has been widely disseminated, and has even been conveyed to members of the Government, the Council of the St. Andrews Medical Graduates' Association instructed us, at their meeting of the 28th ult., to collate and publish the facts bearing on the examination and status of the Medical Graduates of St. Andrews. In obedience to this instruction, we have prepared the following statement based on official information.

"The University of St. Andrews was one of the first to institute examinations for Medical degrees, and has ever been foremost in adopting alterations to insure the proficiency of its graduates.

"It is utterly untrue that the St. Andrews degree can be obtained by purchase. The Registrar of the University writes :—'There is no truth whatever that the degrees were got by purchase. During the war at the end of last century and beginning of the present, degrees were granted to candidates obtaining appointments in the army and navy, for instant duty, on certificates from three or four *eminent* London Physicians, etc., and then often were rejected from the certificates being unsatisfactory.'

"The examination lasts three days ; it is partly written and partly *viva voce*, and is in every respect similar to the examination for Membership of the Royal College of Physicians of London.

"The University of St. Andrews was one of the first to institute examinations at the bedside.

"The examiners are unbiassed, a certain number of them being invariably distinguished graduates of other Universities, and all of them being unknown to the candidates.

"The number of rejections is an evidence of the strictness of the examinational test. In 1858, when the question of representation in the Medical Council was being considered, the official returns of the University showed that the rejections numbered one in four—a proportion higher than that of any other examining body except the University of London ; and this, although nearly all the rejected candidates were at the time legally qualified Practitioners.

"Another strong proof of the efficiency of the examination, and the clearest refutation of the objection that the St. Andrews M.D. is not fitted for the franchise, is afforded by the statistics presented for the last three years to the Medical Council by the chiefs of the Army and Navy Medical Departments, which show the qualifications of the gentlemen who were examined by the Boards prior to employment in the services. As all the candidates must have a qualification before offering themselves for examination, the ratio of rejections must be considered conclusive proof of the value of each degree. We wish to make no disparaging remarks on other examining bodies, but we are bound to draw the following comparison :—

32·52 per cent. of the Members of the Royal College of Surgeons,
18·18 per cent. of the Doctors of Medicine of Edinburgh, and only
8·33 per cent. of the Doctors of Medicine of St. Andrews,

failed to satisfy the examiners.

"If the severity of the examination tests in such a satisfactory manner the Professional attainments of the graduates in the earlier part of their career, the social and Professional position to which many of them have afterwards attained is an endorsement of the original approval. In London alone, thirty-seven graduates of St. Andrews are attached to the schools of Medicine, the Hospitals, and the larger Infirmaries. They hold important posts in St. Bartholomew's, Guy's, St. George's, Westminster, London, Charing-cross, Bethlehem, St. Luke's, Royal Free, Consumption, Queen Charlotte's, Samaritan, Great Northern, Metropolitan Free, City of London for Diseases of the Chest, West London, Soho-square for Women, and the French Hospitals, at the Royal Infirmary for Diseases of the Chest, and the Ear Infirmary, and at the Farringdon, Finsbury, City, Marylebone, Pimlico, and Islington Dispensaries.

"Doctors of Medicine of St. Andrews are also to be found in counexion with Queen's College, Birmingham, and Newcastle-on-Tyne College; with the Schools of Medicine at Edinburgh, Dublin, Liverpool, Leeds, Manchester, Sheffield, and Hull ; with the Hospitals at Belfast, Waterford, Glasgow, Inverness, Leith, Dundee, Lincoln, Derby, Carlisle, York, Stafford, Nottingham, Birkenhead, Brighton, Bradford, Bath, Leamington, Winchester, Cheltenham, Halifax, Bristol, Rochester, South Staffordshire, Worthing, Chorlton, Portsmouth, Chatham, Coventry, Worcester, and Glamorgan ; and with the County Asylums of Middlesex, York, Cambridge, Derby, Lincoln, Sussex, Surrey, Stafford, Lancashire, and Cheshire. They also number in their ranks two Deputy Lieutenants, twelve Justices of the Peace, a Visitor in Lunacy, ten Coroners and Deputy Coroners, five Examiners in Medicine, and six Officers of Health.

"Two are Fellows of the Royal Society, ten are Fellows of the Royal College of Physicians of London, and fifty-five are Fellows of the Royal College of Surgeons of England.

"B. W. Richardson, M.D., F.R.S., President.
July, 1867. "Leonard W. Sedgwick, M.D., Hon. Sec.
"(By order of the Council of the St. Andrews Medical Graduates' Association.)"

At the close of the interview Sir Graham Montgomery stated that he had been most favourably impressed by the representations made, and that they should receive the fullest consideration. For our parts we conceive it scarcely in the range of possibility that any Government would perpetrate such a foolish injustice as to brand twelve hundred educated men with the disfranchisement. The deed would be a studied insult. In truth, these twelve hundred gentlemen make up the majority of the University ; and if they are to be disfranchised, why include the University in the Bill at all?

We will discuss the matter no further at this moment, because we feel that the objectionable clause in the new Bill has but to be exposed to be amended. The graduates, nevertheless, if they will accept our advice, will continue resolutely to demand their rights, and will neither hesitate, nor pause, nor tire until the right is safely in their possession.

GYMNASTICS IN MEDICINE.

In an article which we published lately on the influence of the playing of wind instruments on the lungs, there was opened a mine which has hitherto been most unsatisfactorily worked ; we mean the use of gymnastics as a therapeutic agent. Of late years, no doubt, their value has come to be more and more widely known, and greater advantage has been taken of their good effects in remedying many bodily deficiencies ; yet it may be doubted whether the constitutional characteristics of the individuals selected as subjects for this mode of treatment, and the kind of exercise suitable to each case, have always been sufficiently studied. We have been led to make these observations by a consideration of the annual report of the Bremen Medico-Gymnastic Institute for 1866, which is now before us ; and we may say that the director of this institution, Dr. Ulrich, is an enthusiastic partisan of gymnastics, not only as a therapeutic agent, but also as a means of rearing delicate youths to become strong men, and the powerful to be still more so.

Training has long been recognised in this country as requisite before any great exertion of bodily strength, be it in the shape of a prizefight, or in the more pleasing guise of a boat race, but its rules have hitherto been mostly unwritten, and far from possessing the scientific character which the advanced state of physiology now-a-days demands. At last, however, we have them collected in Maclaren's excellent work,(a) which

(a) "Training in Theory and Practice." By Archibald Maclaren. London: Macmillan. 1866.

is all the more valuable coming from a strictly practical man, but one who has sought for the foundations of his system in the laws which regulate the animal economy.

Gymnastics, then, may be considered from a Medical point of view, first as regards the regimen which should precede and accompany their use when anything is intended beyond gentle and bracing exercise; secondly, as to the various kinds of exercises and the cases for which each is best suited, and lastly, as to their effects when properly selected and carried out.

In speaking, then, first of the preparation and regimen—in other words, *training*—which is necessary in certain kinds of exercises, we shall select Mr. Maclaren as our guide, but we must premise that his typical exercise is boating, though, curiously enough, he tells us that, as executed now-a-days, boating is barely sufficient as an exercise to keep a man in good health. Taken, however, in conjunction with walking or running, early hours, and a well-selected diet, we cannot, provided it be not carried to excess, imagine anything better qualified to develope the physical powers, and to produce that *corpus sanum* without which the *mens sana* rarely exists. But in rowing only a certain number of muscles are called into play, and although these be developed to their fullest extent, some other kind of exercise must be employed to supplement this kind of work, so as to bring all organs to a uniform pitch of strength. In truth, no single variety of exercise calls all the muscles of the body into play. Variety is necessary to give equable development. In modern rowing the great thing required is *wind*, but rowing itself will not make a man long-winded, for the respiratory process, although quickened in rowing, is conducted in a peculiar interrupted jerking manner, while in walking or running it is quickened, but not jerky: hence the importance of combining the two. To attain sufficient respiratory power, therefore, a graduated series of exercises is to be selected. *Festina lente* is the rule for the respiratory and circulatory organs as well as for the voluntary muscles of the body.

Next as to diet. We have of late entered somewhat fully into this subject in its theoretical aspects; here we shall deal with it as a purely practical question. We need not say that the old *régime* of the half-raw beef-steak has disappeared, but there is another incubus which has not yet been dislodged, the custom of limiting a man's supply of drink. This is the way to reduce his weight, but it also lessens muscular power, for a certain amount of moisture is necessary to retain the blood at its proper density and to maintain that supply of fluid in the muscles requisite for the proper performance of their functions, and if this be lessened by perspiration, it ought to be made up from without. A diet not too bulky nor the reverse, sufficiently nutritious to repair the tissues wasted by exertion—such as good beef or mutton well and simply cooked, with a proper supply of stale bread or fresh vegetables (if readily digested), some good light wine and water constituting the beverage—is best suited to the occasion. There should be enough to supply bodily wants, but no excess. All stimulating or indigestible food is to be avoided, and a proper interval should be observed between each meal, as well as between a meal and exercise. But what are these rules? Simply those of ordinary hygiene. The old idea that a man must make himself a martyr when he enters on training is nonsensical—in fact, the less that the system of training deviates from a man's previous habits (provided they have been compatible with health), the better. Need we say after this that in other respects (as to the use of the bath, etc.) Mr. Maclaren's system is pre-eminently characterised by its sound and practical, and, it must be added, truly scientific nature?

But many men do not want to figure in a university eight, and have neither the time nor the patience to enter upon a regular system of training. To them it may be a comfort to know that there are two well-marked kinds of gymnastic exercises—the one of a more or less trying character, calculated to make the strong still more so, but destructive to a weakly invalid; the other, requiring comparatively little exertion, may be undertaken by the weakest with benefit. To the former of these the term *Gymnastics* might be restricted, the latter being usually denominated *Calisthenics*, as tending to give grace in attitude and gesture, as well as precision and exactness in every motion. Thus the exercise of the trapeze would neither be fitting nor becoming to a lady, whilst the use of the rod or rings would tend both to improve her figure and to add grace to her movements. Or we may classify the two kinds, as "heavy" and "light" gymnastics. The former uses force, lifts heavy weights, and developes a heavy, Herculean, massive muscularity. It is liable to strain weak muscles, tendons, and hearts. The latter uses velocity, precision, avoids all strains and weights, and tends to develope a light, agile, Mercurial, or Apollo-like figure. Each is useful in its place, but the "light" kind is the best to begin with, and is suited to all ages and states of health. It may be used in any place, in doors or out, and is best done when accompanied by music.

Of the appliances made use of in "heavy gymnastics" we need not here speak; but let any one step into a gymnasium and see the ropes, the clubs, the ladders, the bars, etc., and he will almost imagine that by chance he has dropped into a place of dreadful punishments, or, it may be, where half-developed men are wearing out their tendency to revert to the tricks of their monkey ancestors. For the "light gymnastics" nothing is required beyond a pair of dumb-bells, a pair of light wooden clubs, a pair of rings, and a wand, all made of light wood. These were introduced into England by Mr. Tyler, and are now used by his successor, Miss Noa, and may be obtained, together with Dr. Lewis's instructions, from Mr. Tweedie for the small sum of 12s. 6d. An exercise we have not seen advised by any one else is recommended by Dr. Lewis for weak chests: this he terms percussion—we would call it slapping—and it is to be so accomplished as to give little or no pain; by increasing the flow of blood to the part, it undoubtedly favours nutrition and growth. Innumerable exercises may be executed with the above simple apparatus, either according to the system of Lewis(b) or according to that contained in another valuable American work on the subject(c) by Madison Watson.

Turning, then, to the value of gymnastics as a means of education and as a therapeutic agent, we find that the subject has not been entirely neglected even in this country; for Dr. Roth has written much on the merits of gymnastics for both purposes, and there are not a few private Practitioners of high standing who have for some time been accustomed to prescribe a course of gymnastics as a remedial measure. Now, it is exactly here where sound judgment is most required, and where our systems as seen in gymnasia are most at fault. A skilful Medical man may therefore do much to aid his patient by pointing out what kind of exercise he is chiefly to follow up, and the degree to which he should follow it. Turning over the leaves of the report above alluded to, again and again we come across the note, "Has used the cure excessively;" and we fear there is a general tendency on the part of patients to overdo the thing, thinking they will thus forward their cure. There could be no more serious error; for, to obtain the full benefit from it, the patient should never be allowed to become tired.

The worst of persons who undertake a "specialty" like Medical gymnastics is their propensity to hold it out as a panacea, and to pretend to treat the most diverse and com-

(b) "The New Gymnastics for Families and Schools, together with the Dumb-bell Instructor and Pangymnastikon." By Dio Lewis, M.D., Boston. Eighth Edition. London: Tweedie. Pp. 268. 1866.

(c) "Handbook of Calisthenics and Gymnastics." By J. Madison Watson. New York: Schermerhorn, Bancroft, and Co. London: Trübner. 1864.

plicated diseases thereby. Thus, according to the report of Dr. Ulrich, in the Bremen Institute during the last year, no fewer than 158 persons (63 male and 95 female) were at one time or another under treatment for such diverse diseases as alvine obstruction, general weakness, paralysis, crooked spine, weak chest, determination of blood to the head, sleeplessness, corpulence, palpitation, rheumatism, lumbago, irregular menstruation, headache, and seminal emissions, of whom it is said that 79 were discharged completely cured, and 53 more or less improved, 24 being still under treatment at the date of the report.

Exaggerations like these do harm to any cause. But we have said enough to induce our readers to adopt the "lighter gymnastics" as a *general* agent in promoting the equable muscular development of children. There are, besides, *special* cases in which they have positive curative virtue. For example, to get rid of the dregs of chorea; to cure the propensity to irregular, fidgety movements, "devil's tattoo," and even squinting; to fix the attention of children with ill-developed brains; in fact, to act as a pleasant, amusing *drill*.

THE WEEK.

TOPICS OF THE DAY.

THE biography of the late Sir William Lawrence which appeared in the *Times* newspaper contained charges against that distinguished Surgeon, one at least of which, if left unanswered, would simply have degraded him from the category of gentlemen. These charges have been indignantly denied by Sir Trevor Lawrence, and all must respect the spirit in which he has come forward as the champion of his father's memory. The most damaging allegation against Sir William Lawrence made in the *Times* notice had reference to the celebrated "Lectures on Man," and was in the following terms:—

"He kept his word so far as withdrawing the obnoxious works from circulation in this country, but sold the entire edition to the notorious Carlile, of Fleet-street, a publisher of seditious and blasphemous works, by whom the books were sent to America."

To this Sir Trevor Lawrence replied:—

"This statement is entirely untrue. Mr. Lawrence had originally sold the copyright of his lectures to Callow, of Prince's-street, for £100, of which he had received £50. He surrendered the other £50, and paid, besides, £300, to withdraw these works from circulation, according to his promise; and the whole edition, as far as he could obtain it, remained in his possession. This occurred in 1819. But the copyright, as was likely to be the case with a suppressed work for which there was much demand, was extensively pirated, and my father incurred considerable expense (see 'Lawrence *v.* Smith,' *Jacob's Reports*) in endeavouring to protect his rights. Lord Eldon, however, refused to restrain the piracy, and therefore any one who chose was at liberty to print the work. This was in 1822; and, as a consequence, in the following year Carlile published an edition of the lectures dedicated to Lord Eldon, and got up to resemble the first, but in somewhat different type, etc. This he did in defiance of Mr. Lawrence; and he did it, as he himself says in his dedication, 'as the result of his' (Lord Eldon's) 'injustice in refusing to establish the author's right of property in these important lectures.'"

The writer of the biography, in defence of his assertion, states that it was made on the authority of Carlile himself, who communicated it to the late Dr. Lynch, of Farringdon-street, his Medical attendant. Sir Trevor Lawrence again repeats his contradiction in unqualified terms, appealing in confirmation to his father's private memoranda, which he states show conclusively that the bulk of the suppressed works remained in his possession long after the publication of Carlile's pirated edition. He adds:—

"To my own knowledge a considerable number of copies remained in my father's possession even as late as 1855, when he cleared out his library on ceasing to occupy his house at Ealing; whereas, according to the writer of the notice, 'the entire edition' had been 'sold to the notorious Carlile' nearly forty years before!"

In this controversy it seems clear to us that all the evidence, except mere hearsay, is on the side on which any one who has the slightest respect for Sir William Lawrence's memory would desire it to be. Moreover, the sole foundation of the charge is at best merely an assertion of a man "notorious" in his generation as "the publisher of seditious and blasphemous works," who was the last person in the world, we should think, to whom so astute a man as Lawrence would, if he wished to falsify his word, commit his reputation. It is far more probable that Carlile published surreptitiously an edition of Lawrence's lectures, and, to cover the piracy, asserted that the author had sold them to him. Is it likely that Carlile would have given Sir William Lawrence a sum of money for an edition of a work of which the copyright was doubtful property? But on the supposition that some grain of truth existed in the charge, why drag the transactions of fifty years ago again before the public, when no living man probably is capable of stating the exact facts as they occurred? What interest has such a matter for the general public of to-day? We do not believe that the allegation is true, for the reasons we have stated; but supposing it were proved to be so, surely a life spent in the honourable pursuit of science and the advancement of the Profession might have been allowed to obliterate the remembrance of early error; and consideration should have been shown, if not to the memory of an eminent Surgeon, at least to the feelings of his surviving children.

With regard to another statement in the *Times* memoir, that the regulation made at St. Bartholomew's Hospital enforcing retirement at 65 was specially aimed at Mr. Lawrence, Sir Trevor Lawrence also denies it, and we believe correctly. If aimed at any one, it probably might refer with more justice to the case of a then member of the Medical staff; but we believe that the regulation was intended to apply to no special individual, and was merely an adoption of the example set by other Hospitals in obedience to a general expression of public and Professional opinion.

The name of the successor to Sir William Lawrence in the Sergeant-Surgeoncy has not yet been announced. Professional opinion would probably be divided between the claims of Sir William Fergusson and Mr. Paget. The former would prove a worthy successor of the great operators who have filled the office, the latter of the men, like Brodie, who rather take their place as philosophical Surgeons than as brilliant manipulators. The rumour that knighthood is to be conferred on Mr. Henry Thompson for his services to the late King of the Belgians is confirmed. In no recent instance of State distinction will the motto of Mr. Thompson's alma mater—University College—be more applicable than in this—*Palmam qui meruit ferat*.

The acquittal of Mr. Richard Thomas Freeman, a Member of the Royal College of Surgeons and Licentiate of the College of Physicians of Edinburgh, who was indicted and tried at the Central Criminal Court for a criminal assault on a servant girl, Mary Ann Warren, was an act of the barest justice. The charge brought against Mr. Freeman was that he had administered chloroform to the prosecutrix for the purpose of drawing a tooth, and whilst she was in a state of unconsciousness had committed the offence. The defendant's servant, however, positively swore that she was in the room the whole time, that she held the plaintiff's head during the operation, and remained with her during her unconsciousness from the chloroform, and afterwards assisted her home. The girl's story, therefore, if Mr. Freeman's servant was to be believed, was simply impossible. Besides, it was shown that she had been out with her sweetheart during the Whitsun holidays, and Mr. Bryant's evidence, who examined her at Guy's Hospital, proved that although there was evidence of recent defloration, there were no external signs of

violence. Besides, great doubt was thrown on the veracity of the girl by the fact that she had circulated a report to the effect that her former master had offered to keep her, but afterwards had confessed that the whole of the statement was false. On the whole evidence Mr. Freeman's innocence was established beyond doubt, and we are only surprised that the verdict of acquittal which the jury gave was not immediately arrived at. Mr. Freeman is certainly entitled to public sympathy. He has been made the victim of a most cruel and groundless charge, which, had he not been able triumphantly to refute, would have ruined himself and his family for ever. We cannot conceive of circumstances calling more loudly for public condolence and—were it possible—reparation.

At the eleventh hour it is reported that a party of the Medical graduates of the University of London have determined to bring forward Professor Miller as a candidate for the Parliamentary representation of the University. It is to be regretted that this resolution was not arrived at earlier, as there can be no doubt that already many pledges have been given by Medical graduates on purely political grounds. Professor Miller comes forward as a Liberal Conservative, but a higher claim we think to be that he is one of the most accomplished chemists in Europe, and thoroughly capable of taking a lead on any question of science which is likely to be debated in the House of Commons. It is only to be regretted that the party supporting him did not announce their intention earlier.

Time has been obtained for a reconsideration of the Vaccination Bill, which has been referred to a Select Committee by the House of Lords. It is to be hoped that its objectionable clauses with regard to registration, inspection, and Medical remuneration, may even yet be altered.

A somewhat racy conversation took place on Monday night in the House of Commons in reference to the accommodation provided for members of that House at the naval review. Colonel Knox very naturally inquired why only 450 tickets for the *Ripon* had been issued, whilst the same ship was employed in the Crimean war to convey a battalion of the Guards 1000 strong to Malta. To this Mr. Corry replied that 450 was the largest number that could be accommodated with convenience, and that members of the House would not like to be packed like sheep in a pen—a *naïf* Ministerial description of the mode in which the British soldier is exported.

The £2000 reward offered by some benevolent, but we should fear crazy, individual for the discovery of a permanent cure for pain is a curious fact at this era of the world's progress. Despite Bridgewater Treatises and Mechanics' Institutes, people will not take a philosophical view of the relations of pain and pleasure. They look upon pain as a mere evil, and wish to annihilate it, forgetting that they must annihilate sensibility at the same time. The offer of half the sum to reward the discovery of anodyne remedies and processes will no doubt lead to the invention of a useful nostrum or two, and perhaps to some improvement in the modes of producing local anæsthesia. We hope that nothing in the terms of the offer will exclude Drs. Richardson and James Arnott from a share in the reward.

The Wimbledon campaign seems to be passing without more than the usual casualties. The Medical officers composing the staff are Surgeon-Major Wyatt, of the Guards, Dr. Pearson, Assistant-Surgeon of the London Scottish, and Dr. Temple, of the Royal Artillery, who won a Victoria Cross for heroic conduct in New Zealand. A shooting match at Wimbledon must be an agreeable recreation after storming a pah and carrying out the wounded under fire.

Advices from Demerara announce that the committee appointed to inquire into the late outbreak of yellow fever have finished their labours, and it is believed that their report will have the effect of terminating the occupation of that unhealthy station by white troops, a result at which every Englishman must rejoice. The Medical officer on the committee was Deputy-Inspector General of Hospitals Prendergast.

We see that the Commissioners of Lunacy, in their report on Hanwell, recommend that the Medical Staff of the Asylum be increased. It appears that there are 1758 patients, and only four Medical officers. This will be deemed utterly insufficient by any one familiar with the management of lunatic patients, and we hope that the recommendation of the Commissioners will be eventually carried into effect, although, from a footnote appended to the report, it seems that the Committee of Visitors are not in favour of the great bulk of suggestions offered by the Commissioners.

At Hereford an herbalist named Chamberlain has been tried for the manslaughter of a woman to whom he sold arsenical ointment for the cure of a tumour, and who died in consequence from the absorption of the poison. It appeared that Chamberlain gave no directions as to how the ointment should be employed, nor any cautions as to danger which might arise from its use, yet the jury acquitted him. Would they have been equally lenient had a legally qualified Practitioner been guilty of such culpable carelessness or ignorance, or both?

ORTHODOX OPHTHALMOLOGY.

Our contemporary the *Pall-mall Gazette* states that several persons of note in the charitable *and* scientific world have taken steps to establish a new Ophthalmic Hospital in London. This intelligence will surprise those who know that besides the special Hospitals which already exist, and the departments now established in most of our large Hospitals, there is an intention of establishing an ophthalmic branch in all general Hospitals. The more astonishing part of the statement is that the new charity is intended to carry out a particular system of cure known as that of "Herr Reichell"—a system which, our contemporary informs us, "renders Surgical operation in many cases unnecessary." Is the whole paragraph which contains this startling bit of news a *canard*, or is it a fact that a new Hospital is to be established, and is the comment of the *Pall-mall Gazette* on the "new system" a piece of delicate satire?

PHYSIOLOGICAL ANALYSIS OF WATER.

The published analyses of water down to a late period were confined to the "total impurity," the "organic impurity," comprising all matters dissipated at an elevated temperature, and the "hardness," which represents the number of parts of lime. Later analyses, as those of Dr. Letheby, exhibit the amount of oxygen requisite to oxidise any unoxidised organic matter, as determined by the quantity of solution of permanganate of potass decolorised in a given time. Dr. Frankland goes further, and gives the total amount of organic carbon; the amount of nitrogen existing in the form of nitrates and of ammonia, which he assumes to be due to contamination with sewage that has undergone complete oxidation; and further, the amount of nitrogen due to *recent* sewage. Something more, though, is wanted, if we are to get at the exact relation between the organic matter in water and the prevalence of diarrhœa, for it is a singular fact that just when the quantity of organic matter is at its maximum in the London waters, diarrhœa is at its minimum. What we want to ascertain further is the *vital condition* of the organic matter in water. Will a small quantity of organic matter in summer excite diarrhœa, whilst a larger quantity in winter will not? What amount does it contain of *living* germinal matter? Into what forms will this germinal matter develope itself under favourable conditions? For it may be presumed that a very small quantity of diseased germinal matter might poison a large bulk of water, and undergo development in the alimentary canal of the persons who swallowed it; and it is certain that Thames water, exposed to heat and light, developes a considerable quantity of low animal and vegetable life, and that if water in that state be given to birds it excites diarrhœa.

SCURVY AGAIN.

We suppose the good old maxim, *salus populi*, etc., cannot apply to merchant seamen, or else Government would have long since done something to better Jack's sanitary condition. Another example of the effect of an insufficient shipping act has occurred, and we trust it will have the effect of stirring up the Lords to pass the Duke of Richmond's bill, and put it into immediate action. A few days since a barque arrived in the Thames from Queensland, and of her crew—thirteen hands in all—four or five were more or less affected with scurvy. Two poor fellows, in the worst stage of the disease, were carried to the *Dreadnought* Hospital ship; one of these, we are told, had to be hoisted on board, and the other, with much difficulty, crawled on to the medical deck. We should remember that the real wooden walls of England are the ships of the merchant navy, and that the poor, overworked, badly-paid, "crimp-deluded" sailor is as much part of our boasted "thews and sinews" as any other members of the population.

DISAGREEABLE DISINFECTION.

The existence of cholera at Rome has aroused Signor Rattazzi's vigilance as a sanitarian. He has given orders that all travellers passing from Rome into the Italian Kingdom shall undergo a process of fumigation. The operation has been described by an American tourist, who thinks he has been very badly used by the Italian authorities. Certes, the mode of disinfection followed is extremely unpleasant, and, if we mistake not, must be as inefficient as it is irksome. The passengers, having been previously locked in their carriages to prevent escape, are politely invited to descend, and are ushered into a small apartment provided with glass doors, which are then closed, and through which the officials watch the operation. The fumigation is, we suppose, produced by some chlorinous compound, but of this we have no details beyond the statement that there are "half a dozen earthen pans set on the floor, which give forth a nauseous, odorous smoke, and pervaded as with a smell resembling lucifer matches lighted in a photographic *atelier*." Surely the Italian Government might devise some means of disinfecting passengers more likely to effect the ends of hygiene, and less calculated to damage the "air-passages" of unhappy and unoffending travellers.

HEALTH OFFICER FOR MANCHESTER AND SALFORD.

The Manchester Medico-Ethical Association have memorialised the City Council to appoint an officer of health either for the City alone or in conjunction with the borough of Salford. The Association is strongly of opinion that such an officer, if well chosen and placed in an independent position that would enable him to give his whole time to the necessary duties, would be a great boon to the citizens. The endowment of such an officer with a salary equivalent to that of a county court judge, would cost less than *one penny per head* of the population—"certainly not a large premium to pay for services such as it would be in his power to render." It is observed that an independent opinion would strengthen the hands of the Council, and relieve it of much of the odium so frequently incurred when both electors and elected may happen to be interested in the retention of sanitary evils. The advice and co-operation of a health officer would, moreover, "diminish the ridicule at present attaching to what are termed coroners' inquests into the causes of sudden or suspicious deaths," and which, when conducted by laymen without scientific advice, are inefficient and useless. The Manchester and Salford Sanitary Association have also memorialised the Home Secretary to a similar effect with the foregoing, and, in the interests of the half-million inhabitants of the two municipalities, it is to be hoped that the appointment will not be long delayed. Their excessive death-rate shows that there is great need of sanitary improvement.

"DE LUNATICO INQUIRENDO(?)."

A few days since a patient died in the County Gloucester Lunatic Asylum, and at the inquest an intelligent English jury found as a verdict that the man "died by the visitation of God *and* natural causes." What the distinction between the two is, of course our readers must decide for themselves. The history of the artificial condition under which the patient was placed is, however, of some interest, and leads us to ask the question how far the "visitation of God" may in some cases be associated with what is termed the wet-sheet system. The details of the case as given by the head attendant are as follows:—The deceased, who was noisy and talkative, was placed in a ward with other patients, and the day after the Doctor (Dr. Toller) ordered the attendant to apply the wet-sheet system—viz., "to strip the patient and wrap him up in a sheet wet with cold water from the feet to the chin. The sheet goes round the body twice; then we place a mackintosh over the wet sheet, and over that two blankets." This delicious application had the effect, we are told, of rendering the patient "passive." He was placed in the wet sheets at 9 at night, and so remained till 1. He was quite sensible when placed between the sheets; he was insensible between 12 and 1. The sheets were then removed, and the poor fellow died at half-past 3. The witness stated that they "had previously had a person die from wet sheets much the same way." The jury completely exculpated Dr. Toller by the verdict, and the only comment we would make is that perhaps it would be in the interest of science that in future deaths under the wet-sheet system a thorough post-mortem examination should be made in order to ascertain how much of the result is distributed between the two recognised factors, "the visitation of God and natural causes."

LENDING SIMPLICITY A GRACE.

Of all the ingenious applications of science to the now established art of the toilette which have recently come under our notice, the latest, which is described in a French paper, is certainly the most wonderful. Its description leaves us in breathless admiration of the state of high art which pervades fashionable French society. The new device is intended to supply a substitute for those appendages of the female thorax, which unhappily are, in some instances, too feebly developed. Baron Liebig has supplied us with an artificial milk; but the French *modiste* has gone a step further. This is what artificial anatomy has effected:—"C'est l'invention des poitrines adhérentes, à l'usage des dames trop éthérées. Il s'agit d'un système en caoutchouc rose, qui s'adapte à la place vide comme une ventouse à la peau, et qui suit les mouvements de la respiration avec une précision mathématique et parfaite."

THE LORD MAYOR ELECT OF DUBLIN.

On last Monday a distinguished municipal honour was bestowed upon the Medical Profession of Dublin by the election of Dr. William Carroll to the office of Lord Mayor of Dublin for the year 1868. Dr. Carroll is the first member of the Medical Profession ever placed in that ancient and honourable civic position, the holder of which is a Privy Councillor during his year of office, and possesses the privilege of personally presenting civic petitions to the Speaker of the House of Commons without the interposition of a member of that House. The only other similar civic distinction which we can at present recall is that bestowed, in the middle of the last century, upon the celebrated Dr. Lucas, who sat in the Irish Parliament for many years as Member for the city of Dublin, and whose statue, erected by his fellow-citizens, still ornaments the City Hall. Dr. Carroll was nominated by a majority of 7 in a house of 54 members. The election takes place legally on the 1st of December in each year, but it is usual then to abide by the nomination of the previous July—an arrangement intended to allow the

incoming chief magistrate time to provide his equipages, horses, liveries, etc. The demonstration that the holding of such an office is not incompatible with Medical practice may help, we should hope, to pave the way for the more extended representation of the Profession in the reformed Parliament, and we wish Dr. Carroll an auspicious mayoralty. From his antecedents we have no doubt that he will maintain the dignity of his office, and justify the selection of his fellow-citizens. Dr. Carroll is a Licentiate of the King and Queen's College of Physicians in Ireland, and a Member of the Royal College of Surgeons of England.

UNHEALTHINESS OF NEWCASTLE-UPON-TYNE.

THAT an abnormally high death-rate has ruled in this borough for some years past is a fact not likely to have escaped the notice of anybody who is interested in watching the enormous development of our large town populations; and if "a fault confessed is half redressed," we may predicate the advent of an improved state of things from the very ample confession which has been made by the sub-committee appointed to report upon the sanitary state of the borough, and the means of rendering it in future a more salubrious abiding place for its 122,000 inhabitants.

Last year the mortality from all causes was at the rate of 32·12 per 1000 persons then estimated to be living in the borough, and Newcastle therefore ranked after Liverpool and Leeds as more unhealthy—so far as the death-rate is a criterion—than any of the other chief towns of the kingdom. The mean annual mortality of these chief towns during the 10 years 1854-63 was 24·25 per 1000, while in Newcastle it was 27·4, so that the evils which are now exposed and stigmatised are not of a growth or character peculiar to one year. Taking the built area of the borough, the mortality, from all causes as well as from zymotics alone, follows the density of population so regularly as to show how potent and general in its operation is this element in the production of a high death-rate. Indeed, the report of the Health Committee states that "a considerable increase of overcrowding seems to have been the great predisposing cause of the excessive mortality of the borough during the past year." At the last census Newcastle had a larger number of persons to each inhabited house than any of the other large towns in England, and the provision of house accommodation has not kept pace with the growth of the population—in fact it has scarcely averaged a new house for every additional ten persons. The number of houses built or being built in 1862 was 387; in 1863, 220; in 1864, 187; and in 1865 only 108; the lull in building operations is attributed in some measure to differences between masters and workmen. "This marked diminution in house accommodation for the rapidly increasing population has been followed by a rise in rent, a great increase in the overcrowding of tenements, and by a death-rate only exceeded during cholera epidemics." And, to make matters worse, the pulling down of tenements for public improvements has latterly proceeded with more than usual rapidity; and it is added "the corporation may be fairly held responsible to provide for those who are displaced by town improvements, or at least to make sure that they are provided for." This is the true view of the *moral* obligation belonging to public improvements, but unfortunately the *material* and *financial* sides of the question monopolise the first, and often the only, attention of the authorities.

The Health Committee have discovered that 43 per cent. of the entire population of the borough live in small tenements of one and two rooms; that there are, or were very recently, 9369 families occupying single rooms, and 6191 families occupying two rooms, giving an estimated aggregate of 47,490 persons existing under these lamentable conditions, which are brought out in their most suggestive form by the record of the ravages of typhus in different parts of the town. In Westgate, where 34 per cent. of the population live in tenements, 7 in 10,000 died of typhus in 1866. In St. Andrew the deaths from typhus were 8 in 10,000, and the tenement population 38 per cent. of the whole. In St. Nicholas and St. John, where 40 per cent. live in tenements, typhus killed 14 per 10,000. In Byker the tenement population was 41 per cent., and the typhus death-rate 27 per 10,000. In All Saints', with 58 per cent. of its population occupying tenements, and nearly two-thirds of them living in single rooms, typhus was fatal to 40 per 10,000.

And another result of the investigation of the Health Committee was to show that, with scarcely an exception, the whole of the tenement property in the town, where supplied with water at all, is supplied by stand-pipes, "necessitating that in wet, snow, or frost, and in sickness, every drop of water should be fetched sometimes a considerable distance."

14,556 persons, living in 4132 rooms, are reported to be without either water-closet or privy accommodation, while in some cases there is only one closet in common to each family in a whole block of tenements. The cubical air space and means of ventilation in these tenements are, as might be anticipated, altogether inadequate; and scrofulous diseases, consumption, and fever, mark the consequences of the deficiency.

"There is no other large town in the kingdom where there are so many unpaved, unflagged, and unsewered streets as in Newcastle, and this must be regarded as one of the circumstances favourable to a permanently high death-rate. The proper scavenging and cleansing of such streets is utterly out of the question, and is, indeed, never attempted."

A glance at the topographical chart of the deaths from scarlatina and typhus during the past year, which is appended to the report, shows that it is in the parts of the town where the evils we have here referred to abound that those diseases have been most fatal, while other parts of the town with some thousands of inhabitants do not appear to have had a single case of either typhus or scarlatina.

The inference is obvious, and the remedy not difficult to discover, but its practical application is just one of the sort of things which demands hearty zeal and determined perseverance. If the Newcastle authorities have these essentials, they may reasonably soon retrieve the sanitary reputation of their town.

FROM ABROAD.—SYPHILIS IN A BOTTLE FACTORY—THE TREPHINE AMONG THE INCAS—PREPOSTEROUS TRIAL IN ITALY.

M. DECHAUX, in a recent number of the *Gazette Médicale de Lyon*, gives an interesting narration of the propagation of syphilis by the mouth at a bottle factory to which he is attached, at Montluçon. It seems that the glass-blowers at such establishments are of a nomad character, wandering from factory to factory in search of work. One of these men, not having the best of reputations, had in vain sought for employment, having been rejected at various workshops. At last, the workmen at Montluçon, touched by some sonorous phrases, such as "he demanded the sacred right of labour in the name of that necessity which had so long weighed him down," agreed to allow him to join one of the working parties into which the *employés* are divided, his business being to commence blowing the bottles, and handing them to others to continue the same operation, so that they passed hot and moist from his mouth to the mouths of his neighbours in rapid succession. At the end of the first week four workmen had bad mouths, and next week four others, and a little later two more. As soon as any suspicion was excited, the man was submitted to examination by M. Dechaux, avowing that he had had syphilis a long time since, but had been effectually cured of it in the Hospital. On examining his mouth nothing abnormal could be perceived save a small crack on the lower lip, unaccompanied by induration, and a common enough appearance among glass-blowers. The workmen on their part instituted an examination, and they as well as the Doctor pro-

nounced him free of any disease prohibitive of his working with them. Still the men above alluded to exhibited chancrous sores at the commissures of the lips and other parts of the mouth and throat, and enlarged submaxillary glands. A more searching examination of the man's prior history now discovered that during the last four years he had infected workmen in the various bottle factories he had entered, and had been driven from them; and that, in fact, the disease was seated in the nose, the bones of which were the seat of caries, giving rise to fetid suppuration. And yet this man, carrying this poison about with him, was allowed to enter factory after factory, for, says the narrator with abundant *naïveté*, "had the nature of his complaint been inscribed on his *livret*, it would have infallibly prevented his getting employment." However, in consequence of such delicacy, the workmen who had accepted him as a partner became the subjects of chancres of the lips, these, in five of their number, reaching the size of one or two franc pieces, and being attended with inflammation, swelling, and induration. They continued in their acute stage for about twenty days, and were not entirely removed until from thirty to sixty days—suspicious-looking ulcerations reappearing in some for a still longer period. In all there was induration of the submaxillary glands, which lasted for from forty to ninety days. In five of the cases the throat was affected, in six there was cutaneous syphilis, and in four pustules or vegetations about the anus. As may be supposed, the health of some of these workmen (eleven in number) was very seriously damaged, and in none of them could work be resumed from forty days to three months. In two instances in which it was attempted too soon, the disease was communicated to others.

At the last meeting of the Académie de Médecine, M. Broca laid on the table an interesting frontal bone, which had been removed from one of the tombs of the Incas at Cuzco, Peru—tombs which existed prior to the expedition of Cortez. It bore undoubted signs of having been perforated with the trephine; and, although the great antiquity of the operation of trepanning has been well established, yet of its performance by the older nations of the New World we had hitherto no indications. The aperture is situated on the left side of the bone, and the condition of the surrounding bone does not admit of a doubt that the operation was performed during life. M. Nélaton is of opinion that the individual must have lived from a week to a fortnight subsequently. A white spot, and the greater porosity of this portion of the bone, would seem to indicate that the process of necrosis was about to be established. There is no trace of fracture, and the probability is that the operation was executed for an internal lesion, which would imply a somewhat advanced stage of Surgical diagnosis. The internal table exhibits a porosity and inequality not seen at the outer table, and which give rise to the suspicion that a collection of matter might have existed. The hole is of about the same size as in the ordinary operation, but it is quadrilateral in place of being round. A careful examination of the edges of the aperture leads to the conclusion that it was not executed by any special instrument, but by means of a knife, graver, or chisel.

We have had examples enough of Medical Practitioners being brought into peril and vexatious trouble by the accusations of hysterical or designing women; but the most preposterous specimen of this we ever recollect to have met with has just occurred in Italy. Indeed, so absurd is the story from beginning to end, that we should hesitate troubling our readers with any account of it had not a respectable Physician been placed on his trial, first at Brescia and then at Milan; and though he was ultimately acquitted triumphantly, this could only have been after great delay, considerable expense, and great mental torment and anxiety. An hysterical servant girl, only 14 years of age, whose menses, after appearing during a year, had become arrested, was charged with attempting the lives of her master's four children, and thrown into prison. While there she gave most contradictory accounts of herself, but at last settled down by admitting the truth of the accusation, and declaring that she had been instigated to the commission of the crime by Dr. Feltrinelli, who, as the reward for their perpetration and her own prostitution, promised her a sum of about thirty shillings, and an article of dress. The children were all to be disposed of in different modes. To the young infant broken needles and pins were to be administered, an elder child was to be thrown into the lake, blows were to be inflicted on the epigastrium of another while its mouth was closed, and poison was to be added to the soup of the fourth. All these crimes she declared that she attempted, though without result, for at the trials all the children were alive and well. One would have expected that before putting a well-known Physician, 56 years of age, on trial for so preposterous a charge, the previous character and present mental condition of his accuser would have been thoroughly investigated; but it was not until the second trial had far advanced that the authorities began to entertain the auspicion that they might be pursuing the vagaries of an hysterical girl or of a lunatic. We need not enter into any of the multitudinous details of the case, which, in fact, quite broke down. An elaborate account of its Medico-legal bearings has been published in the last number of the *Gazetta Medica Lombardia* by one of the witnesses for the defence. The impossibility of the broken needles having been administered is set forth with needless prolixity, seeing that there was no proof whatever of this having been the case, save the testimony of the girl, who was constantly contradicting herself—in fact, the feeling the case leaves is utter amazement that any one could have been put on his trial on such grounds.

PARLIAMENTARY.—THE VACCINATION BILL—ARMY MEDICAL OFFICERS—MEDICAL CHARITIES IN IRELAND—THE LONDON WATER SUPPLY—THE MEDICAL OFFICERS OF THE GUARDS.

In the House of Lords, on Thursday, July 11,

The Duke of Marlborough, on rising to move the second reading of the Vaccination Bill, said its object was the consolidation and amendment of the existing laws relating to vaccination. He had no objection to refer the Bill to a Select Committee, if their lordships would read it a second time.

The Earl of Cork assented to the proposition.

Lord Lyttelton expressed great satisfaction at the fact that an attempt was being made to amend the laws relating to vaccination; it was not his fault that such an attempt had not been made long ago, and he hoped the Government would lose no time in pressing the Bill forward, so that it might become law this Session.

The Bill was then read a second time, and was ordered to be referred to a Select Committee.

In the House of Commons, in answer to Mr. Synan,

Sir J. Pakington said he had already stated that all parts of the Army Medical Warrant of October 1, 1858, which were not specially repealed, were in force and acted upon. The recommendations of the Committee of 1866 consisted of two parts—one financial, and the other relating to discipline. The former had been carried into effect, and he should lay a copy of the warrant on the table. The latter had been referred to the Horse Guards to deal with it. They had not yet issued their decision, but they had acquiesced in the recommendation to the extent he had stated on a former occasion.

In Committee of Supply, on Friday night, the following votes were agreed to:—£1188 for public Infirmaries (Ireland); £11,845 for Hospitals in Dublin, and Board of Superintendence.

In the House of Lords, on Monday, July 15,

Lord De Mauley rose to call the attention of the House to the expediency of supplying water to the metropolis from the superfluous water of the upper part of the Thames. The noble lord, who was very indistinctly heard, said that the water available for the use of the metropolis was practically unlimited in quantity, that it was excellent in quality, and that there was no excuse for the present deficiency in the supply of London.

The Duke of Richmond said that her Majesty's Govern-

ment had regarded the subject as of sufficient importance to issue a Royal Commission in the early part of the year, and he had presided over the Commission, which was composed of four gentlemen who were perfectly competent to enter into the inquiry. The Commission had sat from time to time since February, but had not yet been able to draw up a report, as it had been necessary to wait for the analysis of certain water collected in different parts of England, in consequence of schemes to draw water to London from Wales and elsewhere. The question of procuring a supply from the upper waters of the Thames had not been lost sight of, and in course of time he hoped that, after digesting the voluminous evidence which had been offered, embracing a good deal of scientific testimony, the Commission would be able to embody their opinions in a unanimous report upon this important subject.

On the motion of the Duke of Marlborough, it was agreed that the Earl of Shaftesbury and Earl De Grey should be added to the Select Committee on the Vaccination Bill.

In the House of Commons,

Mr. O'Beirne asked the Secretary of State for War whether any, and, if any, what compensation had been given or offered to those Medical officers of the Brigade of Guards whose prospects of promotion were interfered with by the warrant signed in 1860, but which warrant was not promulgated until 1866.

Sir J. Pakington was not aware that the Government had received any application for compensation, or that there was any ground for giving compensation to those officers. A new regulation had recently been made with regard to the promotion of Medical officers, and he had no reason to think that regulation was unsatisfactory.

After the debate which terminated in the third reading and passing of the Reform Bill, the Public Health (Scotland) Bill, on recommittal, passed through Committee, and the District Lunatic Asylums' Officers (Ireland) Bill was read a second time.

THE BRITISH PHARMACOPŒIA OF 1867.

Doubtless the Pharmacopœia has been well studied ere this by most of our readers, but the following tables of the differences between that of 1867 and that of 1864 may be useful, bringing, as they do, the changes effected more prominently under notice and in a shape more convenient for reference. There is scarce any difference in the published work from the proof copies, which we fully described at a former date.

Substances included in the present Edition of the British Pharmacopœia, but not in the Pharmacopœia of 1864.

(Those printed in italics were included in one or more of the Pharmacopœias of London, Edinburgh, and Dublin.)

Acetum Cantharidis, Lond.
,, *Scillæ, Lond., Edin., Dubl.*
Acidum Carbolicum
Adeps Benzoatus
Amygdala amara
Atropiæ Sulphas
,, Sulphatis, Liquor
Bismuthi Carbonas
Bismuthi et Ammoniæ Citratis, Liquor
Cadmii Iodidum
,, Iodidi, Unguentum
Canellæ Albæ Cortex, Lond., Edin., Dubl.
Cerii Oxalas
Charta Epispastica
Collodium Flexile
Confectio Opii, Lond.
Decoctum Ulmi, Lond.
Emplastrum Cerati Saponis
Essentia Anisi, Dubl.
Esentia Menthæ Piperitæ, Dubl.
Extractum Lactucæ
,, Mezerei Ætherium
,, *Papaveris, Lond., Edin.*
,, *Pareiræ, Lond., Edin.*
,, Physostigmatis
Glycerinum Acidi Carbolici
,, ,, Gallici
,, ,, Tannici
,, Amyli
,, Boracis
Infusum Aurantii compositum, Lond.
,, *Gentianæ compositum, Lond.*
Lactuca, Dubl.
Linimentum Potassii Iodidi cum Sapone
,, Sinapis compositum
Liquor Ammoniæ Acetatis, Lond., Edin.
Liquor Ammoniæ Citratis, Lond.
,, Arsenici Hydrochloricus
,, Atropiæ Sulphatis
,, Bismuthi et Ammoniæ Citratis
,, Ferri Perchloridi (same strength as Tinctura Ferri Perchloridi)
,, Ferri Persulphatis
,, *Hydrargyri Perchloridi, Lond.*
,, Iodi
Liquor Lithiæ effervescens
,, Magnesiæ carbonatis
,, *Morphiæ Acetatis, Lond., Dubl.*
,, *Potassæ effervescens, Lond.*, 1836
,, *Sodæ effervescens, Lond.*, 1836
,, *Zinci Chloridi, Dubl.*
Lotio Hydrargyri Nigra
Mistura Sennæ Composita
,, *Spiritus Vini Gallici, Lond.*
Morphiæ Acetas, Lond., Edin., Dubl.
Morphiæ Acetatis, Liquor, Lond., Dubl.
Oleum Sinapis
Oleum Theobromæ
Ovi Vitellus, Lond.
Orymel Scillæ, Lond.
Physostigmatis Faba
,, , Extractum
Pilula Aloes et Ferri, Edin.
,, *Conii Composita, Lond.*
,, *Ipecacuanhæ cum Scilla, Lond.*
Plumbi Iodidum, Lond., Edin.. Dubl.
,, *Iodidi, Unguentum, Lond., Dubl.*
Pulvis Opii Compositus
Pyrethri Radix, Lond., Edin.
,, , Tinctura
Rhamni Succus, Lond., Edin.
Sodæ Citro-tartras effervescens
,, *Sulphas, Lond., Edin., Dubl.*
Spiritus Ammoniæ Fœtidus, Lond., Edin., Dubl.
Spiritus Vini Gallici, Lond.
,, ,, ,, , *Mistura, Lond.*
Sulphuris Iodidum, Lond., Dubl.
Sulphuris Iodidi, Unguentum, Lond.
Sumbul Radix
,, , Tinctura
Suppositoria Hydrargyri
,, Plumbi Composita
Syrupus Rhamni, Lond., Edin.
Tinctura Chloroformi Composita
,, *Cubebæ, Dubl.*
Tinctura Ferri Acetatis, Dubl.
,, *Opii Ammoniata, Edin.*
,, Pyrethri
,, *Quassiæ, Edin.*
,, Sumbul
,, Veratri Viridis
,, Zingiberis Fortior
Trochisci Ferri Redacti
,, Ipecacuanhæ
,, Potassæ Chloratis
,, *Sodæ Bicarbonatis, Edin.*
Unguentum Cadmii Iodidi
,, Hydrargyri compositum
,, *Picis Liquidæ, Lond., Edin., Dubl.*
,, *Plumbi Iodidi, Lond., Dubl.*
,, Potassæ Sulphuratæ
,, *Sulphuris Iodidi, Lond.*
Vapor Acidi Hydrocyanici
,, Chlori
,, Coniæ
,, Creasoti
,, Iodi
Veratri Viridis Radix
,, ,, Tinctura
Vinum Aurantii
,, Ferri Citratis
,, Quiniæ
,, *Rhei, Dubl., Edin.*

Substances included in the British Pharmacopœia of 1864, *but omitted in this Edition.*

Catechu Nigrum
Cocculus
Spiritus Pyroxylicus Rectificatus
Unguentum Cocculi.

Preparations the Composition of which has been Altered.(a)

Acidum Nitricum—Same strength as old London preparation, ⅓ weaker than the preparation of 1864.

Alumen—A sulphate of *ammonia* and alumina, not of potash and alumina as formerly.

Alumen Exsiccatum—Same change.

Decoctum Aloes comp. contains 4 grains of extract of aloes in the ounce; that of 1864 contained 5·6; the London preparation 3·3.

Emplastrum Belladonnæ—The resin plaster is omitted.

Infusum Gentianæ comp.—The old London preparation; that of 1864 is now termed Mistura Gentianæ comp.

Linimentum Crotonis—Oil of cajeput and spirit are substituted for olive oil.

Linimentum Iodi—Half the strength of that of 1864; camphor is now added.

Linimentum Terebinthinæ—Soft soap and camphor are substituted for resin ointment.

Liquor Ammoniæ Acetatis—One-fifth the strength of that of 1864 (now Liq. Ammon. Acet. Fortior), and about the same strength as the London preparation.

Liquor Ferri Perchloridi—Now the same strength as the tincture.

Mistura Ferri Comp.—The sulphate of iron diminished from 30 to 25 grs., and the carbonate of potash increased from 25 to 30 grs.

(a) Minor alterations are not included.

Spiritus Cajuputi
,, Juniperi
,, Lavandulæ
,, Menthæ Piperitæ
,, Myristicæ
,, Rosmarini
} One-fifth the strength of the preparations of 1864.

Suppositoria Acidi Tannici
,, Morphiæ
} To be made with benzoated lard, white wax, and cacao butter, instead of with glycerine, prepared lard, and white wax. The tannic acid suppositories are 1½ times the strength of those of 1864; the strength of the morphia preparation is doubled.

Trochisci Bismuthi—Rose water substituted for oil of cinnamon.
Trochisci Catechu—Mucilage substituted for tincture of capsicum.
Vinum Ferri—Iron wire substituted for tartrated iron.
Vinum Opii—A quarter stronger than that of 1864, and one-fifth weaker than the London preparation; made of extract of opium with cinnamon and cloves instead of with crude opium alone.

Substitution.

Pulvis Cinnamomi compositus (Pulvis Aromaticus, *Edin.*) substituted for Pulvis Aromaticus.

REVIEWS.

Fecundity, Fertility, Sterility, and Allied Topics. By J. Matthews Duncan, A.M., M.D., F.R.C.P.E., F.R.S.E., Lecturer on Midwifery in Surgeons' Hall Medical School, Physician for Diseases of Women, formerly Examiner in Midwifery to the University of St. Andrews, etc., etc. Edinburgh: Adam and Charles Black. 1866. Pp. xvi.-378.

We have carefully read through Dr. Duncan's book from the preface to the appendix, and when we mention that it contains no less than 113 tables, many of which occupy a page or more, our readers will feel that we have already discharged a serious duty. The time and labour which the author has bestowed on this volume must have been great, and our only fear is that, in his desire to make it as complete as possible, he may have subdivided his subject to an almost unnecessary degree, and by the abundant introduction of statistics (which we admit to be a matter of necessity) may have given his book a very serious appearance to such readers as may only casually glance at a few pages. Leaving the hundred and odd numerical tables each to tell its own instructive tale if properly studied, we shall endeavour to lay before our readers a sketch of the most important results at which our author has arrived. Before recording these results, it may, however, be expedient to give our readers some idea of the general construction of the work. It is composed of ten distinct parts, which treat respectively of (1) "The Variations of the Fecundity and Fertility of Women according to Age," (2) "The Weight and Length of the Newly Born Child," (3) "Some Laws of the Production of Twins," (4) "The Laws of the Fertility of Women," (5) "Some Laws of the Sterility of Women," (6) "Note (by Professor Tait) on Formulæ representing the Fecundity and Fertility of Women," (7) "On the Mortality of Childbed as affected by the Number of the Labour and the Age of the Mother," (8) "On the Age of Nubility," (9) "Doctrine of the Duration of Labour," and (10) "On the Duration of Pregnancy."

The first part contains much important matter, leading to many important results. Our author begins by pointing out the distinction that exists between fertility (or productiveness) and fecundity. By fertility is meant the amount of births as distinguished from the capability to bear; while by fecundity is meant the demonstrated capability to bear children. "In short," says Dr. Duncan, "fertility implies fecundity, and also introduces the idea of a number of progeny; while fecundity simply indicates the quality, without any superadded notion of quantity." From the various data which our author has collected regarding the fertility of women at different ages, he arrives at the conclusions:—

"1. That the actual, not the relative, fertility of our female population, as a whole, at different ages, increases from the commencement of the child-bearing period of life until the age of thirty is reached, and then declines to its extinction with the child-bearing faculty.

"2. That the actual fertility is much greater before the climax (thirty years) is reached than after it is passed.

"3. That at least three-fifths of the population are recruited from women not exceeding thirty years of age."—P. 10.

In regard to the relative or comparative fertility of our whole female population at different ages, he concludes:—

"1. That it increases gradually from the commencement of the child-bearing period of life until about the age of thirty years is reached, and that then it still more gradually declines.

"2. That it is greater in the decade of years following the climax of about thirty years of age, than in the decade of years preceding the climax."—P. 17.

In case the reader should not at once distinctly see the difference between *actual* and *relative* fertility, we may mention that the former has reference simply to the numbers of children born of women at different ages, while the latter has reference to the number of mothers relatively to the number of women living at different ages.

With regard to the comparative fecundity of wives at different ages, he concludes:—

"1. That the fecundity of the mass of wives in our population is greatest at the commencement of the child-bearing period of life, and after that period gradually diminishes.

"2. That the fecundity of the whole wives in our population included within the child-bearing period of life is, before thirty years of age is reached, more than twice as great as it is after that period.

"3. That the fecundity of the wives in our population declines with great rapidity after the age of forty is reached."—Pp. 22, 23.

Dr. Duncan has ascertained, from apparently sufficient data, that of women married between 15 and 19 years of age, inclusive, 13·71 per cent. were mothers within one, and 43·7 per cent. within two years of marriage; that of women married between 20 and 24 years, inclusive, 18·48 per cent. were mothers within one, and 90·51 per cent. within two years of marriage; that of women marrying at from 25 to 29 years, 12·41 per cent. were mothers within one, and 75·80 per cent. within two years of marriage; that of women marrying at from 30 to 34 years, 11·44 per cent. were mothers within one, and 62·93 per cent. within two years; that of women marrying at from 35 to 39 years 9·27 per cent. are mothers within one, and 40·97 per cent. within two years of marriage, from which age the percentage falls rapidly. Hence the initial fecundity reaches a climax at about the age of 25 years, and is very high from 20 to 34 years of age.

The conclusions at which our author arrives with respect to the influence of age on fecundity are:—1. That nearly all women married at from 20 to 25 years of age are fecund. 2. That the fecundity of very young wives, as from 15 to 20, is greater than that of wives married at from 25 to 29. 3. That there is a climax of fertility in women which is reached between 20 and 25 years of age. The variation of fecundity at different ages is singularly illustrated in the case of the domestic fowl. "A hen," says Mr. Geyelin, "during the whole of her life, cannot possibly lay more than 600 eggs, which, in a natural course, are distributed over nine years, in the following proportion:—

First year after birth,	15 to 20	Sixth year after birth,	50 to 60
Second ,, ,,	100 ,, 120	Seventh ,, ,,	35 ,, 40
Third ,, ,,	120 ,, 135	Eighth ,, ,,	15 ,, 20
Fourth ,, ,,	100 ,, 115	Ninth ,, ,,	1 ,, 10
Fifth ,, ,,	60 ,, 80		

In Part II., "On the Weight and Length of the Newly-born Child," the author shows that "the weight of the child gradually increases to its climax in the age of from 25 years to 29. After this the weight of the child declines, and the diminution goes on by very slow degrees." Thus, when the age of the mother is 15-19 years, the average weight of the child is 6 lbs. 15¾ ozs.; when the age of the mother is 25-29 years, the average weight of the child is very nearly 7 lbs. 6½ ozs. (the maximum), and when the mother's age is 45-49 years, the average weight of the child is only 6 lbs. 14⅜ ozs. (The average in the last case is, however, taken from only three children.) There is a general belief amongst midwives that an old primiparous woman passes through labour more easily than one somewhat younger, and Dr. Duncan suggests that the fact (if it is a fact) may be accounted for by the comparatively small size of children born in the latest periods of fecundity. As might have been expected, the average length of newly-born children bears the same relation as the weight to the maternal age. Thus in mothers aged 15-19 years the average length is 19·007 inches;

in mothers aged 25-29 years, the average length is 19·355 inches (the maximum); and in mothers aged 45-49 years the average length is 18·166 inches. Observations made on the eggs of the common fowl confirm Dr. Duncan's statistical results. The small eggs of the young hen are well known, and it is equally a fact that old hens during their eighth and ninth years lay comparatively small ones, which are sometimes entirely without yolk or with an imperfect one.

In the Third Part, "On the Production of Twins," we find the author drawing the following conclusions. In reference to the number of twins born of women of different ages, it appears —1. That the number born "increases with the age of the mother until the age from 25 to 29 inclusive is reached, and that after this age is passed the number of twins born regularly diminishes—a result which accords with what is observed of the fertility generally of the whole female population." 2. That "from the earliest child-bearing period till the age of 40 is reached—that is, till a period when the fecundity has become extraordinarily diminished—the fertility of mothers in twins gradually increases." Thus while of mothers from 15 to 19 years of age only every 189th had twins at a birth, every 45th mother between 35 and 39 years produced two at a birth, or fully four times as many as the women under 20. 3. That a woman has apparently an increased chance of bearing twins in her first pregnancy, but with this exception the proportional frequency of twins increases with the number of the pregnancy, up at least to the ninth, beyond which we have not sufficient data. Thus, the percentage of twins to children in 1st pregnancies is 1·21; in 2nd, 0·66; in 3rd, 0·94; in 4th, 0·96; in 5th, 1·23; in 6th, 1·67; in 7th, 2·00; in 8th, 2·18; and in 9th pregnancies 3·29 per cent. 4. That twins are not regularly distributed amongst births generally. 5. That the mean age of twin-bearing mothers is greater than that of mothers generally. 6. That the actual number of twins born of a mass of women in different pregnancies decreases as the number of the pregnancy increases. 7. That it is probable, though not proved, that twin-bearing women have larger families than women uniformly uniparous.

The Fourth Part, "On the Laws of the Fertility of Women," contains no less than fifteen chapters. We must confine ourselves to comparatively few gleanings from this important department of the volume. 1. The average number of children to an existing English family is, according to Major Graham, 2·26. 2. A fertile woman living in wedlock, from 15 to 45 years of age, bears on an average ten children. 3 A fertile woman, under the same conditions and bearing children periodically (*i.e.* about every two years) up to the end of that time, produces at least fifteen children. 4. The average interval between marriage and the birth of a first child is seventeen months; while the average interval between the births of successive children, however numerous, is a little under twenty months. 5. The number (surviving or not) of a fertile married woman's family is about a third of the number of years since her marriage; if, however, she has just had a child we may guess that the number of her family is about half the number of years since her marriage. 6. "Fertile women generally, living with husbands for sixteen years before the conclusion of child-bearing life, have an average family of about 4½; while persistently fertile wives—that is, wives bearing children at the end of their child-bearing lives—have an average family of 11¼. While fertile wives married twenty-one years before and up to the age of forty-five have an average family of about 6, persistently fertile wives have an average family of about 10½. While fertile wives married for twenty-six years before and up to the age of forty-five have an average family of 8, persistently fertile wives, in the same circumstances, have an average family of about 14. While fertile wives married for thirty-one years before and up to the age of forty-five years have an average family of 9, persistently fertile wives in the same circumstances have an average family that may be estimated at 16." (P. 124.) 7. With regard to the rate at which children succeed each other in families, it may be mentioned that, in opposition to the popular belief, continued lactation has no effect in retarding the occurrence of a new conception; that the mass of early or first children, up to the third or fourth, come into the world in more quick succession than those that immediately follow them; that the mass of children from the fourth or fifth on to the tenth succeed one another more slowly than those before or after them. 8. That the mass of children following the tenth hurry after one another into the world with a gradually increasing rapidity which excels that of all their predecessors—a circumstance which may, in part at least, account for the great mortality of women bearing children after the ninth (see p. 131). 9. There is a gradually diminishing amount of perseverance in fertility as age advances —thus, about half of all wives are fertile at the fifth year of married life, more than a third are fertile at the tenth year of married life, only a fifth part of the whole wives arrived at the fifteenth year of married life are fertile, and so on.

From the subject of fecundity we pass on to sterility, which occupies the Fifth Part of the work. According to Dr. Duncan's calculations, based on 4372 marriages of women between fifteen and forty-four inclusive, 1 in 6·6 or fifteen per cent. of the marriages are sterile. This is a higher ratio than other investigators have arrived at. Simpson, for example, found that the proportion of unproductive marriages in Grangemouth, Bathgate, and the British peerage, all taken together, was 1 in 8½, or 11·7 per cent. (This result is obtained from 210, 402, and 503, or, collectively, 1115 marriages); while West found the general average of sterile marriages amongst his patients to be 1 in 8·5, which only differs from Simpson's ratio by $\frac{1}{15}$. The main element in the expectation of sterility is the age of the woman at marriage. Thus, judging from 4447 marriages, about 7 per cent. of all marriages between 15 and 19 years of age inclusive are sterile; while those married at from 20 to 24 inclusive are almost all fertile; and after that age sterility gradually increases according to the greater age at the time of marriage. From the same data Dr. Duncan arrives at the laws:— "1. That the question of a woman's being probably sterile is decided in three years of married life. For, while a large number are fertile for a first time in each of the first three years of married life, only 7 per cent. of the fertile bear first children after three years of marriage, or about 1 in 13. 2. That when the expectation of fertility is greatest, the question of probable sterility is soonest decided, and *vice versâ*. For our tables show that of the wives married from 20 to 24, who are all fertile, only 6·2 per cent. begin to breed after three years of marriage, while at the other ages, with less fecundity, a greater percentage conceives after the completion of the third year of marriage." (P. 194.) With regard to relative sterility, our author lays it down as a law that "a wife who, having had children, has ceased for three years to exhibit fertility, has probably become relatively sterile—that is, will probably bear no more children, and the probability increases as time elapses."—P. 200.

The concluding sentence of the section on this subject cannot at the present time be too carefully taken to heart by our Professional brethren. "Besides being of evident intrinsic value, the conclusions here arrived at will afford to Medical men means of estimating the utility of the many vaunted methods of curing sterility which are now so much in vogue, and which, considering the nature of the condition to be cured, justly excite anxiety for the honour of the Profession in the minds of its best friends."—P. 202.

We pass without comment over Professor Tait's "Note on Formulæ representing the Fecundity and Fertility of Women," merely remarking that those who are not afraid of mathematical symbols will find in it an excellent example of the successful application of the most elementary mathematics to vital statistics. From the length to which this article has already run, we must pass very briefly over the remaining portions of the work. The questions discussed in the Eighth Part are—"Does the number of a woman's pregnancy regulate to any degree the mortality to be expected from lying-in? Does the age of the child-bearing woman regulate in any degree the mortality accompanying this function?"

With regard to the first question, Dr. Duncan regards the following laws as established:—"1. The mortality of first labours is about twice the mortality of all subsequent labours taken together. 2. The mortality from puerperal fever following first labours is about twice the mortality from puerperal fever following all subsequent labours taken together. 3. As the number of a woman's labour increases above nine, the risk of death follows with the number. 4. If a woman has a large family, she escapes extraordinary risk in surviving her first labour, to come again into extraordinary and increasing risk as she bears her ninth and subsequent children." (Pp. 246—7.) The chief conclusions bearing on the second question are— "1. Youthfulness has less influence in producing mortality from parturition than elderliness. 2. From the earliest age of child-bearing there is a climax of diminishing puerperal mortality, succeeded by an anti-climax of puerperal mortality, increasing till the end of child-bearing life. 3. The age of least mortality is near 25 years, and on either side of this age

mortality gradually increases with the diminution or increase of age. 4. Above 25 years, puerperal mortality increases at a much higher rate than it increases at corresponding periods below 25 years. 5. That the age of greatest safety in parturition coincides with the age of greatest fecundity, and that, during the whole of child-bearing life, safety in parturition appears to be directly as fecundity, and *vice versa*."—P. 275.

From the Eighth Part, "On the Age of Nubility," we shall only quote our author's concluding paragraph:—"In conclusion, it is almost useless to add that I consider the age of about from 20 to 25 the nubile age of woman. . . . . Below 20 years of age woman is immature; she runs considerable risk of proving sterile; and if she does bear a child, she runs a comparatively high risk of dying in childbed; besides, her early marriage brings other disadvantages which need not again be enumerated. The woman above 25 years of age is mature, but to counterbalance this she encounters some greater risks than the very young wife's, though of a similar nature."—P. 293.

The two remaining parts, "On the Doctrine of the Duration of Labour," and "On the Duration of Pregnancy," are of a more controversial character than the earlier portions of the volume, and, although full of interesting matter, call for no special remark.

Freely as we have extracted from the stores contained in this volume, we can yet assure our readers that the mine is far from exhausted; and we would strongly urge them to read it carefully for themselves. To Dr. Duncan, who is well known as one of the most distinguished Scottish Physicians of the present day, we tender in the name of this journal the thanks of the Profession for having presented us with a standard work in which the results of former inquiries in the same departments of knowledge are judiciously blended with a large mass of original matter.

FOREIGN CORRESPONDENCE.

FRANCE.

PARIS, July.

WHILE the great military powers of the globe are steadily bent upon improving their artillery, increasing the number of their iron-plated frigates, and bringing new implements of destruction into the field, it is at least some compensation to behold the laudable efforts of a few private individuals for alleviating the miseries of war, and giving relief to its most immediate victims.

From the philosophy of the nineteenth century we might have expected some better result than the absurd and lamentable system of deciding all doubtful questions by the power of the sword. But since the tide of human affairs is decidedly rolling in that direction—since both monarchies and republics, both free and absolute governments, seem to have imbibed that fatal frenzy—the philanthropist must feel a certain degree of satisfaction in reflecting that some of its worst consequences are probably on the point of disappearing for ever, and that the sufferings of the wounded at Solferino, so eloquently depicted by M. Henri Dunaut, will in all probability be avoided on future battle-fields.

But if the short and sharp Italian campaign of 1859 gave rise to the International Association for the Relief of the Wounded, the protracted civil struggle in America afforded still greater scope for the application of its principles. It is not, of course, my intention to dwell upon the history of that spontaneous movement which ultimately gave rise to such beneficial results during the Transatlantic war. I only wish to give a rapid sketch of the ambulance and military Hospital system which arose in America under the pressure of circumstances. It has been pronounced superior to any of the European systems by a special commission, and deserves, at all events, a certain degree of attention on account of its peculiar character—all the European models belonging, as they do, to one general type, from which the American appliances are widely different.

In the Old World, as compared with the New, distances are short, and roads are magnificent; such, at least, are the general characteristics of central Europe, that classical theatre of war, in which the most celebrated battles of modern times have been fought. As a natural consequence, more attention has been paid to the solidity than to the lightness of the conveyances intended for wounded soldiers. Four strong horses can easily drag along a solid, well-constructed road one of those heavy machines of which the English ambulance wagon placed in the military part of the Exhibition may be considered as the most perfect model.

In the United States the conditions of warfare are widely different. Vast distances, pathless solitudes, and roads of the most elementary description, are the leading features of a great part of that region in which the sanguinary struggles of the civil war took place. Lightness became, therefore, an indispensable requisite in the ambulance carts intended to pick up the men and convey them to a place of safety. Lightness is, therefore, the predominant characteristic of the various forms of carriages adopted during the course of the war, the most perfect of which, as we shall soon see, were invented towards its close, and scarcely ever came into use.

Of course, at first all kinds of clumsy contrivances were brought forward on the spur of the moment. Many an omnibus was devoted by some patriotic proprietor to this interesting branch of the military service; but these conveyances, of which samples are exhibited in the gardens of the building, are only valuable from an historical point of view.

In all the newly invented American wagons which we have had occasion to examine, the reduction of weight, or facility of traction, has been obtained by three distinct modifications. First and foremost is the arrangement of the *covering*. An American ambulance car bears a close resemblance in this respect to some English third-class railway carriages, which I remember seeing in former times. Instead of being built up with solid materials, its sides and roof consist of a slender wooden frame, which supports a thick covering made of cotton-duck, and said to be waterproof. In the second place, the carriage being in this manner rendered much lighter, all its component parts require a less solid and less heavy make. The wheels, in particular, are about half as thick as those of the English type. Lastly, the considerable diameter of the front wheels gives the horses a notable increase of power, by extending the length of the lever on which they act, in dragging the car along a level road. This latter arrangement is, however, open to a serious objection. The size of the front wheels renders the carriage almost incapable of turning. A slight deviation from the right line makes the wheels strike against the body of the wagon, which is not scooped out, as in most European vehicles. It appears, however, that American horses are quite accustomed to *backing*, and this improvement in their education palliates the inconvenience of not being able to turn at sharp angles.

All the American ambulance cars are drawn by a single pair of horses, although some of them carry eight persons besides the driver. In their interior disposition they do not exhibit any marked difference from the ordinary types; benches, with cushions, are disposed so as to accommodate sitting or recumbent persons. In Dr. Howard's system, which appears to be the most perfect, but only came into use at the end of the war, the wagon can accommodate six sitting patients, and two with the driver—in all nine persons; or two recumbent, and two with the driver. The frame rests on suspended springs. Under the seats are placed stretchers and mattresses; on one side lies a water-tank. A system of rollers allows the patient, when lying on a stretcher, to be *rolled* into the carriage with a sliding motion, a method equally acceptable to the bearers and to the wounded man.

The ordinary ambulance cart which was principally used during the war allows four patients to sit on one side and two to lie down on the other; but it was found difficult to load and unload, besides weighing unequally upon the springs. In all these respects Dr. Howard's model is a decided improvement.

The elasticity of india-rubber has in some cases been utilised in order to dispense with metallic springs. Such is the method adopted in the ambulance cart invented by Mr. T. Morris Perrot, which does not exhibit any other interesting peculiarity, and is therefore principally remarkable from a mechanical point of view. India-rubber has also been employed in the Hospital railway car, which is simply an ordinary American railway carriage with the seats removed, and three tiers of stretchers put in, these being suspended by means of india-rubber rings. This conveyance can accommodate thirty patients.

Medicine wagons of the same light type were also largely employed during the war. The bottles were locked up in a set of movable drawers with compartments. A small aperture at the top allowed the neck of the bottle to protrude, while a

spring pressed it down, so that the jolting of the cart never broke the bottles, which were kept fixed in this way. For medicines in large quantities another system of packing was adopted. They were put into paper boxes, with thick bands pasted round the upper and lower parts, so that any shock the boxes received was directed upon the bands, while the bottles were sure not to be touched. The Surgeon sits in the medicine wagon and dispenses his drugs; under the carriage lies the amputating table.

One amusing and prominent feature of these ambulating dispensaries is the enormous space reserved for *whisky*, a drug which appears to enter largely into American Medical practice, and probably suits well enough the taste of the patients.

A coffee-wagon, provided with three canisters, each containing twenty gallons, is used for the purpose of distributing hot liquids (broth, tea, coffee, etc.) on the road, or after a march. The fire is kept burning while the column advances, so that, as soon as there is a halt, the cooking part of the business is over, and the distribution commences at once.

Several models of temporary Hospitals are exhibited in the same collection. The principal of these represents the wooden building erected at Chestnut-hill, two miles from Philadelphia, and which was able to accommodate 3500 patients. An open space being reserved in the centre, a series of wooden constructions, each 147 feet long, radiated from this point like the spokes of a wheel. They had only one story, and were intended to contain sixty patients each. The inner extremity of each ward was connected with a corridor, which ran round the whole building, and contained a railway track, which facilitated the distribution of provisions and the transfer of patients from one place to another.

In the centre stood the principal building, containing the dispensary, chapel, kitchen, laundry, operating room, etc., besides lodgings for the Medical staff. A space was reserved for the band to perform in; and in this respect the Americans seem to have stood faithful to their principle of disregarding minorities, for if the majority of the patients enjoyed the music, it must truly have been torture to those whose wounds were of a more painful or severe description.

The ventilation system was also ingeniously contrived.

In summer, the shutters placed on the roof were opened, and free circulation of air allowed. In winter they were closed, and the air gaining admittance through small apertures in the sides of the building was drawn into a box under the stove, which existed in every ward; thence it escaped, and, coming up the sides of the stove, was let out by small openings into the room.

The bad air was expelled by aspiration, being sucked into a pipe which lay in contact with the chimney of the stove.

The building itself was slightly raised above the ground, so as to allow free circulation of air under it.

In the water-closets a stove lay behind a sheet of iron. The air was, by means of this apparatus, drawn through the seats, and passed into the *box*, after which it made its escape. The result was, that there never occurred any bad smell, and that the fæces were thoroughly dried up, which made it easy to dispose of them. This system might certainly be adopted with advantage in the French Hospitals, where a vile odour always prevails in certain places.

Dr. Crane, who kindly explained the whole system to me, asserted that no epidemic occurred in the Hospital from the time of its erection to the day of its suppression at the end of the war.

I cannot leave this subject without noticing an ingenious Hospital tent, arranged on a plan often adopted by Californian hunters and trappers. An open fireplace, which lies outside the tent, communicates by a covered ditch with a chimney that stands behind it. The ditch crosses the tent in its whole length, and the passage of the smoke and hot air in this subterranean channel creates a gentle and permanent heat, the ground being, after a certain time, thoroughly warmed.

Both the American and the Swiss Associations for the relief of the wounded have obtained a grand prize for their exertions, and truly no reward of this kind has ever been better deserved.

Introduction of Cholera into France.—M. Grimaud has sent in another statistical report, in which he proves beyond all doubt that the first introduction of the late epidemic into France occurred at Marseilles, and that it was due to the landing of a number of infected pilgrims who had come from Alexandria.

GENERAL CORRESPONDENCE.

SIR D. CORRIGAN'S CHARGES AGAINST THE GERMAN UNIVERSITIES.

Letter from Dr. Christian Bäumler.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been requested to transmit to you the following communication, the German original of which is in my hands, and quite at your disposal if you should wish to inspect it.

I am, &c.

Christian Bäumler, M.D., M.R.C.P. Lond.

10, Finsbury-place North, July 15.

"*Medical Faculty of the University of Erlangen.*

"At a meeting of the Faculty, held on July 8, the Dean produced a copy of the *Medical Times and Gazette* of June 22 (No. 886), and drew the attention of the members to a report, contained therein, of the proceedings of the General Council of Medical Education and Registration at their meeting on June 5, and more especially to the speech of Sir J. Dominic Corrigan. The following resolutions were then unanimously adopted:—1. 'That the Faculty have noticed with regret, and enter their protest against, the slighting remarks of Sir J. Dominic Corrigan on the German universities, especially mentioning that of Erlangen.' 2. 'That the Faculty take this opportunity to declare that, since the beginning of 1863, when, by a resolution of the Faculty, the *promotio in absentiâ* was for all time abolished, the degree of M.D. has not been conferred on any foreigner, and, consequently, on any Englishman, without his personally attending and passing an examination by written papers as well as *viva voce*. The admission to examination is, as already stated on a former occasion in the *Lancet* (1865, January 7), unalterably dependent upon the candidate submitting legal proofs of having acquired a licence to practise, and of being on the Medical Register. The derogatory statement of Sir J. Dominic Corrigan is therefore void of foundation in all its particulars.'

"In the name of the Medical Faculty,

"Joseph Gerlach, M.D."

PUBLIC VACCINATION.

Letter from Dr. Septimus Gibbon.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Edward Seaton, in one of your contemporaries, is in error in attributing to me the assertion that the public vaccinator would have to pay the postage of his certificates. What I did say was, that the public vaccinator will be required to transmit by post, or otherwise, the certificate to the Registrar who recorded the birth within twenty-one days, and that he will only be paid for such operations as have the certificates duly registered. My estimate as to the cost of transmission at a penny each may be too high, but I would tell public vaccinators and Dr. Seaton that it is made quite irrespective of the charge for postage. It must be considered that these certificates are, as Mr. Lowe terms it, raised to the importance of "title-deeds," requiring to be registered by a public department, constituted the only vouchers for payment of the doctors. When so registered this fact will, therefore, necessitate the vaccinator's keeping a ledger account of them, showing their numbers, destination, etc. This trouble, in addition to the time occupied in folding, directing, and sending to the post-office or the Registrar, will, I think, be poorly compensated at a penny each. The cost of postage is a separate question. The privilege of free post certainly is not granted by the Bill, and eminent lawyers and other members of Parliament say that either the Doctor, the Registrar, or their masters, the guardians, must pay it. Dr. Seaton's assurance on the point is satisfactory, but it would be more so if we knew who or what assured Dr. Seaton. Perhaps he intends to pay postage out of the prize money that he and Mr. Simon are to award to such vaccinators "as they consider have been sufficiently zealous and efficient in their office." The other assurance of Dr. Seaton is directly at variance with what Lord Robert Montagu told the House of Commons and our deputation. To the former he said the register of certificates will be used to check the demands of the public vaccinator; to us he said distinctly

the public vaccinator will only be paid according to his certificates entered on the register. I said, "Then, my lord, we are to understand the effect of your amendment to be that this register is to form the pay-sheet of the operator?" He replied, "Yes, it is." I grant Dr. Seaton that the language of the amendment (Clause 7) is not put in quite such plain English, but I pledge this to have been the authorised interpretation of it. This being so, I ask whether my inference, that in the case of large towns and even villages with floating populations the public vaccinator will lose about one-fourth of his fees unless a sort of "registration clearing-house for the United Kingdom" is established, is unfair. Dr. Seaton omits the proviso. I am no alarmist, and have no necessity to draw attention to imaginary faults when so many real ones exist in this Bill. My only desire is that the measure should be fair and honourable to the Profession and satisfactory to the public. This Bill appears to me to treat the public vaccinators like school children under one clause, and the whole Profession like "felons" and "ticket-of-leave men" under another. The public are certainly treated with less injustice than the Profession, but some clauses affecting them are unjust and absurdly restrictive and coercive. I fear, therefore, that if the measure pass without considerable modification an agitation will be at once commenced to do away with compulsory vaccination altogether. I am, &c.

July 16. SEPTIMUS GIBBON, M.B. Cantab.

MEDICO-LEGAL—A POSSIBLE DILEMMA.

LETTER FROM MR. W. B. KESTEVEN.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following case appears to me to present a point of Medico-legal interest. I will, therefore, ask the favour of its insertion in your journal.

A gentleman and his wife returning home late one evening from a dinner party, the husband sat down before his parlour fire, while his wife and the rest of his household retired to their several rooms. After some time had elapsed, her husband not joining her, the wife went downstairs to ascertain what detained her husband; she found that he had fallen into a doze. From the staircase, the parlour door being open, she could see her husband, and she leant over the banisters to call to him. In raising herself again from her bent position, she struck the top of her head against a point of the modern projecting banister-rail above, and her cries roused the sleeper. An incised wound was the consequence, the hæmorrhage from which was so considerable that the husband afterwards found it not very easy to stop it; an arterial branch had no doubt been wounded. The lady's garments were saturated with blood, which flowed down her face and head, leaving copious traces on the carpets and upon her husband's sleeves. The remarkable feature of the accident is that no blood was to be found on the point of the banister-rail, upon which she had struck her head; neither, through her having quickly descended the remainder of the flight of stairs, was any blood spilt where she had leant over the staircase.

The point of Medico-legal interest in this case to which I would direct attention is—Supposing that the wound thus inflicted had been deeper, and had caused injury to the cranium, and had ended fatally, quite within the limits both of probability and possibility, what might have been the position of the husband? Supposing that this couple had indulged in matrimonial jars, a seemingly sufficient motive could have been made out to support a grave accusation. The absence of the weapon could have been explained away, and it is pretty certain that a coroner's jury would have had no alternative but to charge the death upon the husband. Furthermore, it is most probable that at the Old Bailey he would have been found guilty of murder, or at least of manslaughter. If even he had escaped either of these extremes, a foul suspicion would for ever have attached itself to his name.

There is sufficient in this short narrative to teach caution in putting circumstances together. I am, &c.

W. B. KESTEVEN, F.R.C.S.

DR. DICKSON ON UNUSUAL FECUNDITY.

LETTER FROM DR. JOSEPH DICKSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The proportion of twin births in every hundred of labours varies very much, according to different obstetrical authors—from 1 in 62 cases (Collins), to 1 in 93 (Ramsbotham). M. Boivin makes the average 1 in 132. As it rarely falls to the lot of a Medical Practitioner to deliver the same woman of nine children, at the full time, in a period of six years, I send you the following particulars, which occurred in my own practice, thinking that they may be interesting to the Profession—more especially to those who are fond of collecting statistics.

I will first give the dates of the different births, and then the remarks on each case, as they appear in my note-book.

Mrs. L., aged 27, short and robust, was delivered of twins, both females, born dead; May 18, 1861. Again delivered of twins; both males, and alive; April 14, 1862. A single birth of a living female child; July 20, 1863. Again delivered of male twins, both alive; January 5, 1865. And again, of two living male children; June 16, 1867.

In the first delivery there was considerable œdema of the labia and legs; the os uteri was very slow in dilating; pains very lingering. Just as the os uteri was dilated she had several severe convulsions, which were checked by venesection. The first child presented by the head, and was delivered by forceps; the second was a footling. There was an interval of twenty minutes between each birth. There was one placenta, which was much softened.

In the second case I was not sent for till the os uteri was fully dilated, and the child was very low down. The first was born a quarter of an hour after my arrival, followed in another quarter of an hour by the second. Both were head presentations, and there was only one placenta.

The third case was a head presentation, and the pains were very lingering.

In the fourth delivery the pains were again lingering; the first child presented by the breech, and had the cord round the neck. The second, born twenty minutes after the first, was an arm presentation. There were two distinct placentæ, which came away separately.

In the last case, the os uteri was fully dilated when I arrived. The first was an arm presentation, and the second a footling. Again, on this occasion, the two placentæ were distinct, and followed each other. There was an interval of a quarter of an hour between the births of the two children.

The woman being healthy, and only 33 years of age, it is reasonable to suppose that she may bear other children. Should such be the case, I will let you hear further on the subject. I am, &c.

Jersey, July 1. JOSEPH DICKSON.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 1.

DR. HALL DAVIS, President

THE following gentlemen were elected Fellows:—Dr. Mitchell, Dr. Watts, Mr. Bennett, Mr. Neate, and Mr. Parker Young.

Dr. EASTLAKE exhibited a case of Complete Epispadias in a Male Infant, and drew attention to its extreme rarity. He remarked that instances of epispadias were so seldom met with in this country that but little mention was made of the subject in works on Surgery and Pathology, nor was any allusion to it found in Sir J. Simpson's memoir on Malformations, or in Dr. Beatty's paper on Doubtful Sex. Dr. Eastlake further stated that M. Dolbeau, who had written a very comprehensive treatise on the subject, in describing the difference between hypospadias and epispadias, had drawn attention to the interesting fact, that in the former, which consisted of a division in the corpus spongiosum, the urethra still retained its normal course; while in the latter, which consisted in a separation of the corpora cavernosa, the course of the urethra was misplaced. The peculiar features in the case exhibited were—firstly, there was no extroversion of the bladder, a condition generally associated with such malformations; secondly, the infant could retain its water; and, thirdly, the pubic bones were united.

Dr. GRAILY HEWITT then exhibited some specimens of a new form of Pessary which he had for some months past employed in the treatment of cases of anteversion or anteflexion of the uterus. It consists of a ring of copper wire covered with gutta-percha, and bent into a peculiar shape. The upper part of the ring passes behind the os uteri; the

lower part is just within the vulva. The middle part of the ring is bent upwards, so as to form two mamillary-shaped arms. When in position, the uterus cannot fall forwards, being supported by the arms in question. This instrument, which is worn without the slightest discomfort, must be adapted, as regards size, to the vaginal canal. It does not slip. Dr. Graily Hewitt stated that he had employed the instrument in a great number of cases, and had full reliance on it as a means of treating this very intractable form of displacement of the uterus. In cases of ante- with lateri-flexion, one arm of the instrument is made to project a little more backwards than the other, and the uterus can thus be kept in perfect position.

A paper, by Mr. R. Dunn, was read

ON A FATAL CASE OF RUPTURE OF THE UTERUS OCCURRING AT THE EIGHTH MONTH OF PREGNANCY.

On the evening of November 13, 1866, Mr. Dunn was called to Mrs. S., and on the evening of the following day she was delivered of a living child. It was her fourth pregnancy. The last confinement had occurred about twenty months previously, and the labour was natural and her recovery good; but in her first she had to be delivered by the forceps, and both in that and in the second had had adherent placenta and great hæmorrhage. During a visit to Margate in August of the previous year, she passed a dead fœtus of about five months; there was no flooding, and no placenta followed; but from that time she was subject to strange feelings about the womb. When Mr. Dunn was first called on the present occasion, the liquor amnii had been snddenly discharged, and there had passed a membranous substance resembling a piece of leather, and which Mr. Dunn took to be some relic of her former miscarriage. There were no labour pains, and the os uteri was closed. The next evening labour pains set in, and were attended with more than ordinary suffering. The os had become fully dilated, and the pains, though frequent and excruciating, were not effective. After waiting some time, there being no lack of room, but only of effective effort, half a drachm of ergot infused in boiling water with a dessert-spoonful of brandy was administered. Energetic expulsory pains soon followed, and after three or four such the child's head was suddenly expelled into the world, with severe pain and screaming. Some difficulty was experienced in extricating the cord from the child's neck, it being particularly short. No pain following, the child was assisted into the world, and the patient tightly bandaged up. She was faint and low, and after waiting some time, as no pains came on, the finger was passed along the cord to its insertion into the placenta, which was found to be firmly adherent. The hand was then passed through the os into the uterus, and a transverse rent in its posterior wall detected. Being extremely faint and exhausted, stimulants were freely administered, and Dr. Robert Lee was sent for. He thought her in a dying state, and that unless she rallied there was nothing to be done. On a further examination, a loop of bowel was found to be protruding from the vagina; this was gently put back by Dr. Lee, and a warm napkin applied to the external parts. She had some sickness, and remained in such a state of collapse that her case seemed hopeless. Mr. Dunn remained with her all night. In the morning the protrusion of bowel had much increased, and it was becoming black. About one o'clock she was seen by Dr. Tyler Smith, who pronounced the case hopeless, the protruded bowel being black and strangulated. She lingered for five days more, expelling between two and three yards of intestine before she succumbed. Dr. Tyler Smith was present at the autopsy, which revealed a transverse rent in the posterior wall of the uterus, in the interior of which the degenerated remains of a firmly adherent placenta were seen. No microscopical examination was made.

Dr. Barnes said the descent of intestine through the rent was not necessarily fatal. He had seen a case in which rupture took place during delivery of triplets; all the children and the separate placentæ were expelled. He saw and felt the fold of intestine. The woman was collapsed for some time, but she quite recovered. A few weeks ago he had seen a case, some miles from town, in which rupture had taken place the previous day, and the fœtus had escaped into the abdominal cavity. The woman had rallied a little from the shock, and gastrotomy, which was performed whilst the patient was under the influence of chloroform, seemed to add nothing to the prostration; but she sank in a few hours. He extracted a large child with hydrocephalus. With regard to the causes of rupture of the uterus, of course they were various; but one leading condition, he was of opinion, lay in the loss of relation between the strength of the muscular walls of the uterus and of the cervix. In most cases the cervix was not expanded, and the uterine wall gave way before the resistance offered. In a large number of instances there was no disproportion between child and pelvis. Rupture occurred in women whose strength had been reduced by preceding pregnancies—whose muscular system had lost its integrity. In two cases of this kind he had found the uterine tissue generally weak by degeneration. If ergot were given in such cases before the os uteri was dilated, of course the risk of laceration was much increased. Some further discussion ensued, in which Mr. Benson Baker, Dr. Cleveland, Dr. Hicks, Dr. Playfair, and Dr. Brunton took part.

A paper was read by Dr. W. S. Playfair

ON THE TREATMENT OF LABOUR COMPLICATED WITH OVARIAN TUMOUR.

The author commenced by relating the particulars of a case of labour obstructed by ovarian tumour which had come under his observation. The pelvis was occupied by a solid ovarian growth, which was not diminished by puncture, delivery being finally effected by craniotomy. He then proceeded to analyse the details of fifty-seven similar cases, collected from various sources, pointing out the results of various methods of treatment employed. He showed that nearly one-half of all the cases left to nature had proved fatal, probably on account of the bruising and contusion to which the tumour was necessarily subjected during the passage of the head. On the other hand, all the cases in which the tumour had been diminished in size by puncture recovered; and he strongly advocated this treatment, even when there was apparently sufficient room to admit of delivery without it. One-half of the cases in which craniotomy was resorted to had also ended fatally. In several of these cases perforation was only employed because the child was dead, although there was sufficient room for the passage of the head; so that the results of this treatment were also most unfavourable for the same reason as when the case was left to nature. Dr. Playfair concluded by briefly reviewing the history of the other methods of treatment employed, such as turning and the Cæsarian section.

Dr. Hicks considered that the use of chloroform in these cases was of great service by lessening the expulsive action of the uterus, which constituted one great obstruction to the return of the tumour.

Mr. Spencer Wells said that in the case alluded to in the paper, in which he had succeeded in pushing a tumour up from the pelvis into the abdomen, a trocar had been introduced by the vagina; and on his arrival he found the canula remaining in the tumour, but no fluid escaping. On making a freer opening, it became evident that the tumour was not ovarian, but a uterine fibroid. It was agreed that he should try to push it up before craniotomy or the Cæsarian section were discussed; and after the patient was well under the influence of chloroform the tumour was pushed up without much difficulty, and the accoucheur then readily delivered the child.

Dr. Barnes thought the paper one of great interest. He thought one subject of importance had not been sufficiently discussed—that was, the propriety of inducing labour when pregnancy was complicated with ovarian tumour. It might be laid down as a general law, that Nature would not tolerate the concurrent progress of these two conditions. Nature could hardly bear the simultaneous growth of two tumours like the pregnant uterus and an ovarian tumour. Something must give way. He had observed three orders of events, which all pointed to the truth of this law and to the practice he recommended. 1. He had seen the tumour burst and the patient die; and in another case he had seen the tumour rotated on its axis so that the pedicle was strangulated, leading to rupture of vessels, labour occurring prematurely under the agony of death: or the uterus may rupture. 2. He had seen repeatedly premature labour occur spontaneously with good result. 3. The distress in breathing and hectic induced may be so urgent as to compel the Physician to interfere. He had frequently acted in obedience to this law, and with the best results. The indication seemed to be clear in all serious complications with pregnancy to reduce the case to its simplest expression by eliminating one of the elements of complication. The most fitting element to remove was the pregnancy. This done, the ovarian tumour could be dealt with at a convenient time, according to its special circumstances. In reference to the remarks of

Mr. Spencer Wells, he asked whether, in some of the cases in which tapping had been resorted to, premature labour did not set in all the same? It was certainly incorrect to say that the child was necessarily lost by inducing labour.

Dr. Murray said that in a case of pregnancy complicated with ovarian disease which had come under his care, he had induced labour at the end of the eighth month, and, under chloroform, had delivered by means of the forceps. The child was living. This course he followed, fearing that the cyst might be ruptured during the process of labour at the full time. His patient had been pregnant before, and it appeared that whilst pregnancy was going on the development of the cyst ceased, and it only enlarged after and between the pregnancies. He considered that operations of any kind, however simple, performed during pregnancy, tended to produce abortion or bring on premature delivery.

Mr. Spencer Wells said the question had several times come before him, in consultation on cases where an ovarian cyst complicated pregnancy, whether the patient should be left alone, or tapped, or premature labour be induced. He would be glad to learn from some of the accoucheurs present what they had observed in such cases, and he would say that the result of his own experience was strongly in favour of tapping. If the cyst were left alone, there was a great risk that it might burst as the pregnancy advanced. He had known this to occur twice. He had repeatedly tapped ovarian cysts in pregnant women, and never saw anything unusual follow; and it appeared to him that inducing premature labour must be more hazardous to the mother than tapping a cyst, while certainly it injured, if it did not destroy, the child. In reply to Dr. Barnes's question, Mr. Wells said that he had only once seen labour speedily follow tapping, and in this case it was probably only a coincidence.

The President considered that if the contents of the tumour were fluid, tapping was preferable to the induction of premature labour.

Dr. Playfair said that, with reference to the question of premature labour mentioned by Dr. Barnes, in none of the cases he had collected was it stated that the child was born before the full period. He did not doubt, however, that premature labour frequently occurred where ovarian tumour existed; but the child being small, there would be little difficulty in the delivery, and, therefore, such cases had not been recorded. He believed that, as a rule, it was chiefly the smaller ovarian growths which were pushed down in front of the head. When the tumour was large it was more likely to remain within the abdomen, and would not be so likely to act as an obstruction. From this it resulted that such a complication would seldom be discovered until labour had actually commenced, and, therefore, there would be no opportunity for discussing the advisability of artificially inducing delivery.

NEW BOOKS, WITH SHORT CRITIQUES.

Journals.

The *British and Foreign Medico-Chirurgical Review* for July is good, as usual. Three long analytical and critical articles on cholera, sanitary matters, and cutaneous Medicine, are of the valuable character peculiar to this magazine, for, whilst apparently only reviews, they in reality constitute important original articles. Among the original communications we would notice one by Dr. Fraser, of Edinburgh, on the Akazga ordeal, as practised in West Africa.

The *New York Medical Journal*, in its improved form, abounds with valuable articles. In that for May there is one of much value on the use of concave glasses for asthenopia, whilst the June number contains some researches on a hitherto unstudied subject—the relation of heat to mental work. By an exceedingly delicate thermo-electric apparatus the author, Dr. Lombard, was able to detect a distinct rise in the temperature of the head, as contrasted with other parts of the body, whenever the brain was roused to activity, whether in study or more markedly still by emotion. Another valuable communication is from the pen of Dr. Hammond, on the subject of convulsive tremor as a distinct disease. He has found bromide of potassium, with the continuous galvanic current, and strengthening remedies if necessary, the best means of treatment.

We have now before us the second number of the *Journal of Cutaneous Medicine*; its contents are scarcely of so varied a nature as when it first appeared, there being no less than three papers from the pen of Erasmus Wilson. Dr. Tilbury Fox sends a paper on what he calls a parasitic fungus, what others call an alga. In reality we cannot see that it much matters, but for our own part we think with Dr. Fox. Mr. Jonathan Hutchinson sends a valuable collection of cases of a most interesting character.

The *Edinburgh Medical Journal* for July contains, among other matters, a very good case of pulsating tumour of the orbit completely cured by ligature of the common carotid, from the pen of Joseph Bell. But by far the most important communication is on dilatation of the bronchi, by Dr. Grainger Stewart (one of the most promising pathologists we know), wherein are reviewed all previous researches on the subject; in fact, the paper is, as nearly as possible, perfect.

We have already alluded to the great improvement which has taken place in the *Glasgow Medical Journal*. The number for July contains a paper by Dr. Gairdner on cardiac diagnosis, which is quite worth the year's subscription.

On the appearance of the *Laboratory* we spoke of it in no very eulogistic terms, but subsequent acquaintance has led us to modify our views, for, unlike some of our would-be contemporaries, it decidedly put its worst foot foremost. Were it only for Dr. Frankland's lectures on coal-gas, which are being brought out in its columns, the publication would be welcome; but to these many other papers of great scientific interest have been added. We would particularly invite our London readers, if they want to know Dr. Frankland's opinion of the gas with which they are supplied, and of the dodges which are employed to defraud them, to turn to these lectures. Among other things it turns out that the amount of sulphur contained in the various specimens of gas examined has been reckoned by Dr. Frankland at only one-half what it ought to be.

The *Journal of Mental Science* for July commences with an account of the mental conditions of Gabites, the boy who murdered his companion at Sheffield. There are also able papers on progressive locomotor ataxy, by Dr. Garquet, and clinical cases by Dr. Williams. The records from abroad are also of great interest.

Body and Mind. By G. Yeates Hunter, M.R.C.S. and L.S.A. London: John Churchill and Sons. Pp. 152.

*** We do not exactly understand what niche in the literary world this volume is intended to fill; as to its contents, it treats of pretty well everything connected with hygiene and Medicine. Notwithstanding, we have failed to find out anything of a very original cast in its production. It contains many of the commoner Latin and French phrases, as "ex gratiâ" (*sic*), "à fortiori" (*sic*), with many others, as well as the records of two cases, including that of the author. One great merit the work possesses—there is not much of it.

Elements of Chemistry. By W. Allen Miller, M.D., LL.D., V.P.R.S., Professor of Chemistry in King's College, London, etc., etc. Part I.—Chemical Physics. 4th Edition. London: Longmans. Pp. 643.

*** This part of Professor Miller's invaluable work has come to be looked upon as the established text-book for the subjects on which it treats, and the pains which have been taken to improve each edition as it came out has insured the maintenance of the position it at once assumed on its very first appearance. Considerable changes have been effected in this edition; the new system of atomic weights has been accepted, the barbarous letters have consequently been abandoned, and the metrical systems of weights and measures have been placed alongside of our recognised standards. Along with other additions, something has been added to the section on spectrum analysis, and the chapter on the Photographic Effects of Light has been transferred to this volume.

System of Obstetrics. By C. D. Meigs, M.D., lately Professor of Midwifery and Diseases of Women and Children in Jefferson Medical College, Philadelphia, etc, etc. 5th edition, revised. Philadelphia: H. C. Lea. Pp. 754.

*** This text-book is so highly valued in America, being, in fact, the recognised authority, that Americans need not be told of its excellence; but it is less known in this country, and we may therefore say that in some respects it is unequalled, in others, again, it is not so good. The plan of illustrating each practical point by a case given in detail is one which cannot be too highly commended, but we look upon the style in which the book is written as somewhat stilted—pleasant enough, perhaps, to listen to, but not so pleasant to read.

Surgical Observations, with Cases and Operations. By J. Mason Warren, M.D., Surgeon to the Massachusetts General Hospital, etc. Boston: Ticknor and Fields. Pp. 630.

*** The name of Warren is intimately connected with American Surgery, and the present volume will be to it a lasting memorial. Here are collected 375 cases of all sorts, the results of a life-long experience, carefully drawn up and commented on in a most instructive manner. Some of the cases have been already published, but their value is not thereby lessened; and they are now obtainable in a more compact and convenient form. It must not be forgotten to add that the book is beautiful y printed and illustrated.

On Diseases of the Lungs and Air-passages. By H. W. Fuller, M.D. Cantab., F.R.C.P., Physician to St. George's Hospital. London: John Churchill and Sons. Pp. 534.

*** Dr. Fuller's work on diseases of the chest was so favourably received, that to many who did not know the extent of his engagements, it was matter of wonder that it should be allowed to remain three years out of print. Determined, however, to improve it, Dr. Fuller would not consent to a mere reprint, and accordingly we have what might be with perfect justice styled an entirely new work from his pen, the portion of the volume treating of the heart and great vessels being excluded. Nevertheless, this volume is of almost equal size with the first.

Relevé des Conclusions adoptées par la Conférence Sanitaire Internationale, en Réponse aux Questions de son Programme.

List of the Conclusions adopted by the International Sanitary Conference held at Constantinople in 1866.

*** Although nearly a year has elapsed since this conference assembled and separated, the official report of their conclusions has only now reached us. These, however, have long been before our readers; but this report will give them greater permanency and accessibility.

Hospitals, Infirmaries, and Dispensaries. By F. Oppert, M.D., L.R.C.P., Physician to the City Dispensary, etc. London: John Churchill and Sons. Pp. 218.

*** With but few works on the subject, we gladly welcome the valuable results of Dr. Oppert's labours. Carefully got up and well illustrated, treating of the building, arranging, and management of Hospitals, etc., both at home and abroad, the work is one which should be consulted by every man who has an interest in the rearing or superintending of such institutions.

Sound; a Course of Eight Lectures delivered at the Royal Institution of Great Britain, by John Tyndall, LL.D., F.R.S., Professor of Natural Philosophy in the Royal Institution and in the Royal School of Mines. London: Longmans. Pp. 335.

*** Professor Tyndall is so justly celebrated for putting what other men might teach dogmatically in a most strikingly practical way before his audience, that we are sure this publication of his lectures will be most welcome to all. The work is most readable, yet minutely accurate and beautifully illustrated.

Half-yearly Abstract of the Medical Sciences. Vol. XLV January to June, 1867. London: John Churchill and Sons. Pp. 372.

Braithwaite's Retrospect of Medicine. Vol. LV. January to June, 1867. London: Simpkin and Co. Pp. 408.

*** These well-known and valued volumes are again before us. Comparisons are always odious, especially where the things compared are both good; but of these two we must express a sort of predilection for the former work. Their scope is, however, different, and the one hardly interferes with the other. We cannot fail to be gratified by the frequent references in them to our columns, whether to the original or editorial articles, or to our Hospital reports, observable on looking over them. Still, we cannot help regretting the absence in the English tongue of such a work as that now being brought out by Virchow, Gurlt, and Hirsch in place of the time-honoured Canstatt.

The State of the Medical Profession further Exemplified. By Edwin Lee, M.D., etc. London: Johnson.

*** Dr. Edwin Lee professes extreme anxiety for the regeneration of our Profession. Bearing in mind a recent work by the same gentleman, we are tempted to remind him that charity should begin at home.

An Explanation of the Popular Weather Prognostics of Scotland on Scientific Principles By the Rev. Charles Clouston, L.R.C.S., Minister of Sandwick. Edinburgh: Black. Pp. 53.

*** To explain all popular weather prognostics, such as that of the shepherd of Salisbury Plains, for instance, is no easy matter, nor do we think that Mr. Clouston has succeeded in dealing in a perfectly satisfactory manner with the old saws as to swine, cats, etc. But these are minor matters. As a whole, the work is most excellent, combining accurate science with careful observation and a lifelong accumulation of experience. To travellers and tourists in the North it will be of great value. We can vouch for the accuracy of many of the indications mentioned.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows held on Wednesday, July 17, the Director-General of the Medical Department of the Army was duly admitted a Fellow of the College. At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Benjamin Neale Dalton, Guy's Hospital; Arthur Bowes Elliott, Richmond, Yorkshire; Rowland Hill Coombs, Bedford; Martin Luther Heelas, Wokingham; John George Randall, St. Marylebone Infirmary; Arthur Evershed, Ampthill, Beds; Clarence Henry Massiah, Clifton; Charles George Edmonds, Cambridge; Samuel Freeman Bagnall, 16, Caroline-street, Bedford-square; George Francis de la Cour, Chatham; Thomas Cole, Bristol; Thomas Frederick Hopgood, Chipping Norton; John Reuben Bathurst Dove, Falfield, Gloucester-hire; Louis Marc le Grand de la Liraye, 2, Rutland-street, Hampstead-road; George Frederick Trotter, Holmfirth; William Fox Branch Pollard, British Guiana; William Keen, 209, King's-road, Chelsea; Edward Moore Little, Shaw, Melksham; John William Morris, Llanelly, Carmarthenshire; Augustin Le Rossignol, St. Helier's, Jersey; Frederick William Jackson, Broadstairs; Samuel John Truman, Nottingham; William Square, Plymouth; Atmaram Sadashiva Jayakar, Grant Medical College, Bombay; Alexander Wortmann, M.D. Giessen; Alfred Armstrong, M.D., Queen's College, Kingston, Canada; William Jerome Donor, M.D., Philadelphia, U.S.; Alexander Ferriani, M.D., Ferrara; Louis Hugh Franklyn, Chapple, Halstead; Samuel M. C. A. Anderson Smith, Kilburn; John Allen, M.D. St. Andrews, Longton, Staffordshire.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 16th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Messrs. T. Wells Hubbard, A. Conway Newman, Samuel Stickland, Richard Banks, E. Earnshaw Cass, and Alfred Gillingham, students of Guy's Hospital; George Stone, Frederick White, and L. Vincenzo Mapel, of Liverpool; J. Adolphus Smith, Richard Brocklesby, and James C. Skinner, of St. Mary's Hospital; Alexander Mitchell, George Eagland, and W. F. M. Jackson, of the Birmingham School; Thomas Taylor and William Davison, of the Newcastle School; Alfred Risdon and J. H. P. Wilson, of St. George's Hospital; Clement Godson and Frederick W. Langworthy, of St. Bartholomew's Hospital; J. B wer Wils n and Augustus T. V. Packman, of Sheffield; Thomas Whittington, of Manchester; Samuel J. Nooke, of Leeds; E. J. Hardy Booth, of St. Thomas's Hospital; Allen Sewell, of University College; Laurence Saunders, of Kingston, Canada West, and William C. Gasteen, of Dublin.

The following passed on the 17th inst., viz.:—

Messrs. Arthur C. Simon, Herbert Norton, William Bower, and S. Punnett Budd, students of St. Bartholomew's Hospital; William Roberts and John McMahon, of the Dublin School; A. Herbert Hackney and H. Herbert Mason, of University College; Antonio Simplicio Gomes and Atmarama Sodashiva Jayakar, of Bombay; George Robinson, of the London Hospital; William Douglas, of Belfast; Percival Kingsford, of Guy's Hospital; and Henry Walmsley, of St. Thomas's Hospital

It is stated that out of the fifty-seven candidates who offered themselves for examination, fourteen failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their studies for three months. The last "Pass" examination this session for the diploma of Membership will take place on Saturday next.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 11, 1867:—

Francis Henry Lovell, Aspley, Woburn, Bedfordshire; Robert Brennan, Croydon; Clifford Crewe, Guernsey; John Giles, Beaconsfield; Edward Sunderland, Thornton, Bradford, Yorkshire; Charles Hedley, Richmond, Yorkshire; Alexander Paull Fiddian, Bridgend, South Wales; John Frederic Codrington, Newcastle, Australia; Richard Ellery, St. Stephen's, Saltash, Cornwall.

As Assistants:—

Walter John Churchill, New-street, Birmingham; Arthur William Postans, Mill-hill, Newmarket.

The following gentlemen also, on the same day, passed their First Examination:—

Alfred Stanbanks Drew, St. Mary's Hospital; Augustus Aldridge, Guy's Hospital; Albert Frederick Field, St. Bartholomew's Hospital.

Pharmaceutical Society of Great Britain.—Names of Candidates who passed the major examination as Pharmaceutical Chemists on July 17:—

John Scoley Battle, Lincoln; John Butterworth, London; Walter John Churchill, Birmingham; Samuel James Gittoes, West Bromwich; Alfred Richard Hall, London; Henry Thomas Harwood, Yeovil; Archibald Kitchin, Whitehaven; John Knight, London; John Clements Perreas, Southampton; Arthur William Postans, Bury St. Edmunds; Henry Woolhouse Shaw, Oakham; Walter Tracy Walker, Maidstone.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BIRTHS.

Allen.—On July 6, at George-street, Hastings, the wife of Dr. Allen, of a son.

Horne.—On July 9, at Buckhurst-hill, Essex, the wife of Edward Horne, Esq., M.R.C.S.E., of a son.

Ramsbotham.—On July 10, at 16, Park-place, Leeds, the wife of S. Henry Ramsbotham, M.D., of a son.

Stewart.—On July 12, at West Dulwich, the wife of W. Stewart, M.D., of a son.

MARRIAGES.

Lamb—Edgar.—On July 16, at St. Mary's Church, Birkenhead, Joseph Lamb, Esq., M.R.C.S., to Mary Emily, only surviving child of Samuel Edgar, Esq., L.F.P. and S.G., both of Birkenhead.

Murray—Trimen.—On July 11, at St. Pancras Church, by the Right Rev. the Bishop of Antigua, assisted by the Rev. W. Mercer, William Berkeley Murray, M.D., of Tenbury, Worcestershire, eldest son of William Murray, Esq., of Barbados, to Elisabeth Helen, elder daughter of Richard Trimen, Esq., of 71, Guildford-street, Russell-square.

Smith—Hole.—On July 11, at St. Mary's, Bathwick, by the Rev. H. T. Hole, brother of the bride, assisted by the Rev. Clement Smith, brother of the bridegroom, Josiah Sydney Smith, M.D., of Tiverton, Devon, son of the late Josiah Smith, M.D., of Staines, Middlesex, to Helen, eldest daughter of the late Charles Hole, Esq., of Ebberly, North Devon.

DEATHS.

Andrews, John, F.R.C.P., at Wellesley-house, Brighton, on July 12, aged 65.

Haswell, Worthy, M.D., at Shaftorth-house, Eastbourne, Sussex, on July 14, in the 48th year of his age, much regretted by a large circle of friends.

Lilley, Sarah Anne, the beloved younger daughter of F. J. Lilley, M.D., at Cambridge-house, South Lambeth-road, on July 10, in her 21st year.

Locock, Amelia, wife of Sir Charles Locock, Bart., at Binstead, Isle of Wight, on July 14.

Monks, Edward, M.R.C.S., of 2, Norfolk terrace, Darnley-road, Hackney, late of 18, Arbor terrace, Commercial-road East, on July 15.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Halifax Union.—Mr. Macnab has resigned the Hipperholme District; area 2194; population 2778; salary £12 per annum.

Hea lington Union.—Dr. Joseph Cegan has resigned the Wheatley District; area 15,220; population 4018; salary £70 per annum.

APPOINTMENTS.

Market Harborough Union.—Alexander M'Ivor Tindall, M.R.C.S.E., L.S.A., to the Second District.

Neath Union.—Thomas Evans, M.R.C.S.E., L.R.C.P. Edin., to the Britonferry District. Francis M. Russell, M.R.C.S.E., L.S.A., to the Eastern District.

Portsea Island Union.—Owen Davies, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to Kingston District. Douglas Wills, M.R.C.S.E., L.S.A., to the Landport District.

Settle Union.—Edwin S. Green, L.R.C.P. Edin., L.R.C.S. Edin., L.M., to the Settle and Horton-in-Ribblesdale Districts and the Workhouse.

Tiverton Union.—Richard Bryden, M.R.C.S.E., L.S.A., to the Sampford Peverell District.

CHOLERA AT ADEN.—A Suez telegram states that all arrivals from Aden are submitted to a strict quarantine, on account of the cholera. It is strange, however, that arrivals from India are not so dealt with.

ELECTION OF M. WURTZ.—At a meeting of the French Academy on the 15th inst., M. Wurtz was elected to the place lately vacated by M. Pelouze in the Section of Chemistry.

THE NEW INFIRMARY AT LEEDS seems to be a structure of almost unexampled completeness. It is built of stone and red brick, and contains ten galleries; these are at least 28 feet wide, and have a length of from 110 to 125 feet. The central hall is 150 feet long and 65 feet wide. The building was designed by Mr. Gilbert Scott, R. A.

DEATH OF M. WEBER.—The death of M. Weber, of Heidelberg, which occurred quite recently, resulted from want of caution which he displayed whilst in attendance on a case of contagious disease. In performing tracheotomy, a clot escaped into the trachea, which he attempted, in common with his assistants, to remove by sucking with his mouth. Both he and his assistants caught the disease, and he died in six days.

THE QUEEN'S UNIVERSITY IN IRELAND.—At a meeting of the Senate of the above University, held in Dublin Castle, on Saturday, the 13th inst., the following Examiners were elected for the ensuing year:—In Medicine, B. G. McDowel, M.D.; in Surgery, M. Harry Stapleton, M.B.; in Midwifery, John A. Byrne, M.B.; in Materia Medica and Medical Jurisprudence, F. B. Quinlan, M.B.

INTERESTING SOUVENIR.—At the final disposition of the property of the late Mr. John Phillip, R.A., the very last work on which he was engaged, "The Race against Time," has appropriately been presented to Mr. Henry Thompson, Surgeon to University College Hospital, under the following circumstances. During an illness, says a popular writer in a morning contemporary, which shortly preceded his last attack, Mr. Thompson attended him, and was sitting with one hand on the artist's pulse while the other held his watch, which he was attentively regarding. Something in the *pose* and general effect struck the artist, who said, "If I live through this, I'll paint the subject and call it 'The Race against Time.'" He only lived to execute the preliminary sketch in chalk, which has deservedly been presented to Mr. Thompson.

A VERY gratifying testimonial was presented to James Somer, Esq., Surgeon, of Broad Clyst, at Camelford, on Thursday last by Captain Holder, in the name of Mr. Somer's friends, in recognition of the many kindnesses shown them during his eight years' practice among them. The testimonial consisted of a beautiful dining-room clock, bearing the following inscription:—"Presented to James Somer, Esq., M.R.C.S., etc., by his personal friends, on the occasion of his leaving Boscastle, as a slight testimony of their appreciation of his Medical services while among them: May, 1867."

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.—At the meeting of this Society on May 3—the President, Dr. Fuller, in the chair—Dr. Martyn read a paper "On the Cause of the Premature Decay of the Permanent Teeth." The author's view is, that teeth perish prematurely because they are faulty in structure, faulty in a too porous and fragile enamel (often marked by a chalky appearance) and dentine, and, their other structures being of no better quality, they yield more or less early to the wear and exposure to which they are subject. The defects of structure, he believes, are not due to delicacy of health—want of vital force, so to speak—but really to insufficient use during the formative process or development of the teeth. Human teeth are intended to grind grain, but in civilised life from the cradle upwards they have really little of their natural work to do; cookery does it for them. A crust of bread is nearly the chief *pièce de résistance* put to table. There is enough, doubtless, of tough meat, but this does not give grinding work. The supporting structures of the teeth—viz., the alveolar processes—suffer in a like degree from insufficient use. This is shown in any mouth from which a grinder has been removed. The opposing tooth soon projects from its bed into the space of the lost tooth, next its fangs become exposed, the tooth loosens, and ultimately drops out, or it may be that caries attacks the parts unsheltered by enamel, and the tooth is lost. What happens is, that the alveolar process connected with the unopposed tooth, losing its natural stimulus—grinding pressure—becomes absorbed, its lining periosteal membrane degenerates, probably becomes spongy, and so forces the tooth from its bed. The author has endeavoured for some time to carry his views into practice, and has selected the navy biscuit as a suitable article of diet in the place of bread.

RELATION OF THE ANT-EATER TO THE APE.—The researches which M. G. Pouchet has just laid before the French Academy show that the joints of the fore limb of the great ant-eater resemble closely those of the primates.

THE cause of tubercular disease, according to a memoir just published by M. Lebert, of Breslau, is simply a shortening of the pulmonary artery.

THE LATE DR. RANKING, OF NORWICH.—In the Address at the opening meeting of the Norfolk and Norwich Medico-Chirurgical Society, the President, Dr. Eade, said: I have just alluded to the most recent of our losses—that of Dr. Ranking—and now that after three years of illness he has at length passed away from among us, and has exchanged that state of mental death which had unhappily so long been his lot, for the real corporeal death which awaits us all, I think it will not be unbecoming in me to say a few words *in memoriam*, though, as he has so recently been living and practising amongst us, and was consequently as well known to you all as to me, these words need be but few. And of him I would say that, gifted with a fine appearance, learned and well read in his profession, generally sound and often acute in his judgment, his comparatively brief career was as brilliant and as successful as often falls to the lot of a provincial Physician, and certainly amongst her past celebrities it is long since Norwich has possessed one who combined so many gifts of mind and body with the aptitude for the lower gift of material professional success. His literary powers were considerable, and as the translator and editor of a standard work on Scrofula—as the originator, and for many years editor, of a half-yearly abstract of the Medical Sciences—as the editor, for a period, of the *British Medical Journal*—as the author of an able retrospective address, read at the annual meeting for 1846 of the Provincial Medical Association—and further, as the author of valuable papers and lectures on Diphtheria, on certain affections of the heart, and many minor subjects—it is not surprising that he stood high in the ranks of British provincial Medicine, or that he was selected, a few years ago, for the honour of the Fellowship of the Royal College of Physicians of London. When I add that he was keenly alive not only to his sense of personal dignity—some, indeed, may think even too much so—but to the honour and dignity of the Profession at large; and when I also say that in his professional career he not only held the best position, but derived, perhaps, larger emoluments from it than any of his recent predecessors (with probably one exception), I think I shall have shown that a man of mark has passed away from among us, and that not only has this Society lost a valuable member, but the Profession at large has lost a Physician of elevated character, of high tone of mind, and of great general acquirements—one of whom it may well be said, that whatever his minor faults of character or manner, yet that even these his "failings leaned to virtue's side."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. M—S.—The result has already been sent to the candidates. The list will be published next week.

An Old Subscriber.—Yes; generally. He would be eligible for every appointment except those under special regulations.

Forceps, King's College.—On inquiry it appears there will be a meeting of the Midwifery Board early in the ensuing month.

Mr. Cooper.—The baronetcy conferred on the late Sir William Lawrence descends to his only son, now Sir J. J. T. Lawrence, of the Queen's Indian Army, who was admitted a Member of the Royal College of Surgeons of England in 1853. He received his Professional education at St. Bartholomew's Hospital.

Chelsea Hospital.—On application to the Society of Apothecaries you will no doubt obtain admission to the gardens for the desired purpose.

A Fellow.—Two of the retiring members of the Council in July next will be Mr. Partridge and Mr. Hodgson; both have been Presidents. The vacancy occasioned by the decease of Sir William Lawrence will not be filled up until then.

Associate King's College.—We are unable to direct you to any account of the Sergeant-Surgeons. Richard Ferris filled the office under Queen Elizabeth; Mr. Cæsar Hawkins is one of the Sergeant-Surgeons to Queen Victoria.

Erratum.—It was a printer's error; the only representative of the College of Surgeons at the funeral of the late Sir William Lawrence was Mr. John Flint South.

Dr. Steele on the Use of the Forceps.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Permit me to correct a slight but important inaccuracy in your notice of my pamphlet on "The Use of the Forceps." The instrument I advocate is not, as you have stated, "*median*" in size, but the longest and largest which is used in this country—namely, Simpson's or Roberton's long double-curved forceps. I am, &c. A. B. Steele.

Liverpool, July 10.

Medical Mayors.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I observe that a member of our Profession has been chosen to fill the office of Lord Mayor of Dublin for the year 1868. Can any of your readers state how often the office of chief magistrate of our principal cities—London, Edinburgh, and Dublin, to which might perhaps be added York, Glasgow, and Aberdeen—these six cities giving to their chief magistrates the title of "Lord"—has been held by a Medical man? or whether the election of Dr. Carroll will furnish the first instance of such occupancy? I am, &c. Inquisitor.

A Lady who Never Perspires.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A friend of mine has informed me that his mother has never known herself to perspire, even in the hottest weather. Can any of your correspondents inform me whether this is unusual or not? I am, &c.

33, Mornington-road, N.W., July 15. H. L. Maysmor, M.D.

An Encouragement to Female Doctors.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to forward for your edification the following advertisement, inserted in the *Louth Gazette*, published Friday, 5th inst. By giving it due publicity in your widely circulated journal you will doubtless increase the reputation of this gentleman among his Professional brethren. I enclose my card, and remain, &c.

Louth, July 13. Rusticus.

Copy.

[A Card.]

MR. W. PATERSON, Surgeon and Accoucheur, No. 17, Baggeholme-road, Monks'-road, Lincoln. Midwifery fee, 7s. 6d.

COMMUNICATIONS have been received from—

Mr. Greening; Mr. Steele; An Old Subscriber; Dr. Baumler; Dr. Maysmor; Dr. Gibbon; Rusticus; Mr. Bellamy; Dr. Quinlan; Dr. Leathem; Mrs. Baines; Mr. McNicol; Mr. Bremridge; Dr. Macloughlin; Dr. C. H. Marston; Mr. Spencer Wells; Dr. Corfe; Mr. J. Chatto.

NEWSPAPERS RECEIVED—

Laboratory—Gazette Hebdomadaire—Gazette Médicale de Paris—Colonial Mail—London Scotsman—Exeter College—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 13, 1867.

BIRTHS.

Births of Boys, 1061; Girls, 1066; Total, 2127.
Average of 10 corresponding weeks, 1857-66, 1815·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	696	566	1262
Average of the ten years 1857-66	647·3	586·6	1233·9
Average corrected to increased population..	..	..	1357
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	..	4	1	5	7	12	..
North ..	618,210	3	1	6	1	8	16	35	..
Central	378,058	3	2	8	..	4	4	13	..
East ..	571,158	2		2	3	8	3	36	..
South ..	773,176	5	6	3	6	8	9	14	..
Total ..	2,803,989		11	23	11	33	44	115	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·951 in.
Mean temperature	60·0
Highest point of thermometer	75·3
Lowest point of thermometer	45·9
Mean dew-point temperature	51·7
General direction of wind	N.E., E., & S.E.
Whole amount of rain in the week	0·03

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 13, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending July 13.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending July 13.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London(Metropolis)	3082372	39·5	2127	1421	1262	75·3	45·0	60·0	0·03	3
Bristol (City) .	165572	35·3	114	74	166	78·2	49·6	62·5	0·01	1
Birmingham (Boro')	343948	43·9	283	167	118	80·3	44·3	62·0	0·00	0
Liverpool(Borough)	493439	96·4	321	285	247	81·9	50·5	65·4	0·28	28
Manchester (City) .	368823	80·9	246	205	‡232	86·6	42·0	63·7	0·05	5
Salford (Borough) .	115013	22·2	108	58	65	82·7	40·1	63·4	0·67	68
Sheffield(Borough).	225199	9·9	151	119	93	77·7	45·4	59·1	0·75	76
Leeds (Borough) .	232428	10·8	132	118	100	81·5	43·0	62·4	0·41	41
Hull (Borough) .	106740	90·0	88	49	39	..	..	..	..	..
Newcst-on-Tyne, do.	124960	23·4	74	66	55	69·0	46·0	59·2	0·34	34
Edinburgh (City) .	176081	39·3	120	85	90	76·7	47·0	62·2	0·10	10
Glasgow (City) .	440979	87·1	282	257	202	..	..	..	..	..
Dublin (City and some suburbs) .	319210	32·8	‖169	157	‖163	..	..	..	..	..
Total of 13 large Towns . . .	6187764	34·3	4215	3061	2702	80·6	40·1	62·0	0·26	26
					Week ending July 6.	Week ending July 6.				
Vienna (City) .	(1863) 560000	..	..	..	296	..	..	67·1	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·951 in. The barometrical pressure decreased from 30·16 in. on Monday, July 8, to 29·57 in. on Saturday, July 13.

The general direction of the wind was N.E., E., and S.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 61·9°.

‖ The return from Dublin not having been received in time for insertion, averages of the returns of the six previous weeks have been substituted for the correct numbers.

APPOINTMENTS FOR THE WEEK.

July 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

22. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

24. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

26. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture II.—Part I.

THE POWERS OF THE FORCEPS—THE FORCE BY WHICH IT HOLDS THE HEAD—THE COMPRESSIBILITY OF THE CHILD'S HEAD.

To arrive at a just idea as to the application of instruments in difficult midwifery, it is first of all necessary to study carefully what these instruments can do. What, for example, are the powers of the forceps, the lever, of the crotchet and craniotomy-forceps, and of the cephalotribe? When we know these, and have formed a correct idea of the nature of the labour—that is, of the difficulty to be overcome—we shall know which instrument to select, and how to use it. The powers of an instrument must obviously depend upon its construction; but this is true to an extent not often thoroughly appreciated. Take, for example, the noblest of all—the forceps. It is difficult to exaggerate the importance of developing to the fullest extent the powers of this instrument. The more perfect, the more powerful, we make it, the more lives we shall save, and the more we throw back into reserve those terrible weapons which only rescue the mother at the sacrifice of her offspring.

Three distinct powers or forces can be developed in the forceps. First, by simply grasping the head and drawing upon the handles, it is a *tractor*, supplementing a *vis à fronte* for the defective *vis à tergo*. Secondly, the forceps consisting of two blades having a common fulcrum at the joint or lock, we can by a certain manipulation use it as a *double lever*. Thirdly, if the blades and handles are long enough and strong enough, and otherwise duly shaped, the forceps becomes a *compressive power* capable of diminishing certain diameters of the child's head, so as to overcome minor degrees of disproportion.

Now, all these powers may be brought into use, and all may be in great measure lost, according to our choice of a good or a bad model. Thus, if we rest satisfied with the short forceps of Denman, we shall only have a feeble tractor, a feeble lever, and an instrument having almost absolutely no compressive force. It is obvious that such a forceps can have but a restricted application. It can only serve to deliver the child when the head is in the pelvis, when very little tractile power is required. Ask yourselves what this means. What are the consequences in practice? Simply this: you are driven in a multitude of cases to perforate, to destroy the child. Such an alternative may well make us reflect whether we cannot extend the powers and the application of the forceps. By simply lengthening the blades and shanks and giving the blades an additional curve adapted to the curved sacrum, we can reach the head detained at the brim of the pelvis. By moderately lengthening the handles and making the instrument stronger, we increase the leverage and tractile power, and we gain a moderate compressive power. Thus we bring within the saving help of the forceps a further number of children that must otherwise be given up to the perforator, or run the risk of turning. You ask, Why hesitate to endow the forceps with this great privilege? Why has the feeble forceps of Denman so long held its sway in this country? The reason is that there are limits beyond which we cannot push the saving powers of the forceps. If we pass beyond these limits, we run into danger of injuring the mother and of losing the child. Now, the great contest in all matters of strife is about boundary lines; and it is concerning these limits that authorities have differed. Some men are afraid of giving power, lest it should be abused. They are so terrified at the possible mischief which great power may work, that they would rather abandon the good which great power is equally capable of working. They tremble lest we should be unable to acquire the skill and the discretion necessary to direct that greater power. Such men virtually say, You shall not apply the forceps where the head has not descended into the pelvic cavity—an arbitrary limit dictated by fear, and fixed by ignorance that the forceps is just as capable of safely delivering a child whose head is arrested at the brim. For here, as is continually the case in Medicine, experience arbitrarily limited excludes progress in knowledge and bars improvement in practice. For example, how can a man acquire a just knowledge of the power of the forceps to deliver a head delayed by slight disproportion at the brim, if he always delivers under this difficulty by perforating? Clearly, he bars himself from acquiring that knowledge; and, giving up his intelligence to the delusive dictates of his wilfully limited experience, he refuses even to accept the evidence of those whose experience is greater, because it is directed by a freer spirit of research, by greater confidence in the resources of art.

Let us, then, go back to the study of the powers of the forceps, unshackled by any preconceived opinions as to what the instrument can do or can be permitted to do. First, as to its *tractile* powers. In order to draw, the instrument must take hold. How does it take hold? You may at first sight suppose that this is accomplished by grasping the handles. But in the case of the ordinary forceps, especially the short-handled forceps, there is little or no compressive power, so that the hold cannot be due to the handles. The hold is really due to the curvature of the blades, which fit more or less accurately upon the globular head, and the compression of the bows of the blades against the soft parts of the mother, supported by the bony ring of the pelvis. This may be made clear by a simple experiment. Take an india-rubber ball, slightly larger in diameter than a solid ring; place the ball upon the ring. Then seize the ball through the ring by the forceps. The blades will be opened out by the ball. Then drawing upon the handles, even without squeezing them together, you will see the blades pressed firmly upon the ball by gradual wedging, as the greatest diameter or equator of the ball comes down into the ring. Just so is it with the child's head and the pelvic brim and canal. The blades are held in close apposition to the head by the soft parts and the pelvis of the mother. In many cases this outward pressure upon the bows of the blades is enough to serve for traction. It is not necessary to tie the handles of the forceps. You may even do without handles altogether. Thus, one of the earliest attempts, stimulated by the desire to realise the concealed discovery of the Chamberlens—that of Palfyn—consisted in applying two opposed levers, which did not cross, and therefore could not exert any compressive force. Assalini's forceps was constructed on this principle. It is essentially a tractor, with slight leverage power. Professor Lazarewitch, of Charkoff, brought to the Obstetrical Exhibition a beautiful forceps constructed on Assalini's principle. This instrument I applied in two cases. It held admirably; but all its holding power is due to the pressure exerted by the mother's parts upon the blades.

Mattéi, of Paris, has made another instrument, whose blades do not cross, whose shanks parallel are set in a cross bar of wood to serve for traction; and quite recently Dr. Inglis has proposed a forceps in which the handles are done away with altogether, there being nothing but a short curve of the shank, representing the shoulders on the handles of Simpson's forceps, to serve for traction. I think this sacrifice of all compressive and leverage power, reducing the instrument to a weak tractor, is a retrograde movement. But it proves the proposition that the hold upon the child's head is the result of the adaptation of the curved blades and the outward wedge-pressure of the mother's parts upon the bows of the blades. Now, the strength of the hold depends mainly upon the degree of curvature of the blades and the width of the fenestræ. If the curve is one of large radius, so that the two blades, when in opposition, approach parallelism, and especially if the fenestræ be narrow, the hold will be feeble, and moderate traction will cause the forceps to slip, and this in spite of any compression you can exert upon short handles. But increase the curves so that the blades in opposition form nearly a circle, and the instrument will not slip. This increased head-curve is one feature of the French or Continental forceps. The hold is further strengthened by making the points approach nearer together. In the English patterns the points are generally distant from each other an inch or more. In the foreign forceps the distance is often much less than an inch. There is some danger from this proximity of pinching or abrading the skin of the face. So much for the grip and traction.

Let us now study the *compressive power*. This is inconsiderable in almost all the English forceps, but is an important feature in most of the foreign long forceps. The essential

condition for compression is, indeed, present in English and foreign. This consists in the crossing of the blades, and in the greatest divergence of the blades, when the handles are brought together, being less than the greatest transverse diameter of the child's head. This diameter is normally from 3¾ to 4 in.; the greatest divergence of the blades is rarely more than 3 in. Therefore, when the blades are sitting loosely on the head, the handles diverge. Practically, the head is rarely grasped exactly in its transverse diameter, but generally in one more or less oblique—something between the transverse and the longitudinal diameter. This, of course, is even longer than the transverse. Now, if we are to exert any direct compression upon the head, we can only do it by squeezing the handles together. For this purpose, the handles must be long and strong on one side of the lock, and the blades must be strong, but not much longer, on the other side of the lock, than are the handles. It would be useless to provide this compressing power if the head were not compressible. That the head is compressible—that is, that we may diminish some of its diameters by lengthening others—is easily proved.

Firstly. It is known that in normal pelves the head in passing, if the labour be protracted, undergoes elongation; from round it becomes conical; the greatest transverse diameter—the interparietal—becomes merged in the lesser or interauricular, whilst the longitudinal diameters are correspondingly increased.

These changes I have demonstrated by actual measurements and outlines.(a) These diagrams may be taken as types of the normal head and of the form impressed in protracted labour.

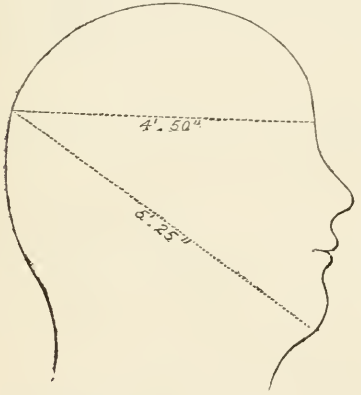


Fig. 1.—The original form of the head before being affected by labour.

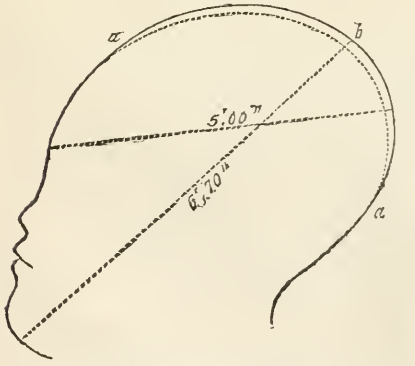


Fig. 2.—Head moulded by protracted labour.

(a) *Obstetrical Transactions*, vol. vii.

Thus, just as the pressure of the soft parts and the pelvis is a main agent in fixing the forceps upon the head, so it is in moulding the head to allow of its passing. Indeed, I think this pressure almost entirely accounts for the alteration of form the head undergoes when the English forceps is applied. I can show outlines of heads as strongly altered under the natural forces of labour as they often are under forceps delivery.

Secondly. Numerous experiments have been made with strong forceps upon dead children to determine this point. Baudelocque found that he could lessen the transverse diameter by a quarter to a third of an inch. Siebold gained half an inch. Osiander and Velpeau claim quite as much. More conclusive are the observations of M. Joulin and of M. Chassagny. These gentlemen, in experiments designed to demonstrate the utility of continuous compression and traction by powerful forceps upon the head in difficult labour, have completely proved that a degree of moulding may be effected much beyond that commonly observed. This moulding consists in the elongation of the head, the elongation being gained by the lessening of the equatorial diameter. The process resembles that of reducing wire by drawing it through holes in an iron plate.

Now, another question arises: the head is indeed compressible, but to what extent is it compressible without sacrificing the child's life? For if the maximum of plasticity compatible with life is represented by that degree which is common in severe first labours, then we ought to give the mother all the ease in our power by lessening the diameter of the child's head by perforating. It is very difficult to fix this limit with accuracy. Baudelocque thought compression to the extent of a quarter or a third of an inch was compatible with the safety of the child. The important fact is, that in many cases the child survives, although its head has undergone very great compression and moulding.

The following conditions influence the result:—The degree of development of the head as to size and ossification; and the mode in which the compressing force is applied. If this force be applied *gradually* and *continuously*, a much greater extent of moulding with less injury to the child may be obtained than what Baudelocque thought possible.

At one time it was the practice—more probably with the view of securing the hold than of compressing the head—to tie the handles together; and even now that tying is generally abandoned and condemned, the old custom asserts itself in the preservation of the grooves near the extremities of the handles made to receive the ligature. The objection to tying is this—the continuous compression is opposed to the course of Nature, which intermits the expulsive act, giving periods of rest during which it is presumed that the brain may better adapt itself, and its circulation be maintained. Hence the law that we ought in forceps labours, and, generally, in all operative labours, to imitate this intermitting action, by interposing intervals of rest, endeavouring so to time our efforts as to be simultaneous with, and in aid of, the natural expulsive efforts. The argument is good both in logic and in physiology. It is not wise to disregard it. But experience proves that there are cases where the moulding of the head can be accomplished more quickly, and without endangering the child, by continuous pressure. Some Practitioners, therefore, have recurred to the old practice. Dr. Gayton has adapted a clip to the handles of the forceps, which answers much better than the ligature. Whatever the mechanism resorted to, it is essential that it admit of being instantaneously removed, in order to allow the blades to be taken off. Delore, (b) who has made many dynamometric observations, concludes that pressure exerted either by the forceps or by the genital organs may be harmless to the head if spread over a large surface. It is limited and angular pressure that is dangerous. He has also shown that *the greater the traction the greater is the pressure.* The pressure is equal to about half the traction. Thus, if you exert a traction force of fifty pounds, the pressure upon the head is about twenty-five pounds.

To economise traction, then, is to economise pressure. How do we economise traction?

There are three principal rules.

First.—Take sufficient time to allow the head to mould.

Secondly.—Take care to draw in the axis of the brim—that is, traction must be perpendicular to the plane of the brim. If this is neglected, additional force is required, increasing with every degree of angular difference.

Thirdly.—To use slight movements of laterality or oscillation.

(b) *Gazette Hebdomadaire*, 1865.

This uncertainty and inconstancy in the degree to which compression may be carried with safety to the child, is a justification for tentative or experimental efforts with the forceps. It is the reason why in doubtful cases, where the disproportion in size between pelvis and head is not very decided, we are called upon to make a reasonable trial of the forceps before resorting to craniotomy. It appears to me quite certain that in this country we are yet far from having utilised the powers of the forceps to the highest legitimate extent. I might go further, and say that during Denman's time and until quite recently we had actually lost ground in this respect, and had reverted to the use of instruments scarcely better than the original rude forceps of the Chamberlens. More than one hundred years ago Smellie contrived and used the long forceps. Perfect used it, and it seems that in his time the long forceps was better known than it was at the beginning of the present century.

ORIGINAL COMMUNICATIONS.

AN HYPERTROPHIED CERVICAL GLAND TREATED BY INJECTIONS OF IODINE.

By C. H. MARSTON, M.D., L.R.C.P.Ed., M.R.C.S.E.

The following case may prove interesting as illustrating a new mode of treatment in a somewhat peculiar case, and as suggestive of a similar treatment in some cases which all Surgeons at times find troublesome and obstinate.

Miss N., a lady about 35 years of age, consulted me in January last in reference to an hypertrophied cervical gland which, from its situation and peculiar condition, had become very disagreeable to her. In early life she had suffered from strumous enlargement of the glands under the jaw and in the neck, and still showed a pretty considerable scar, which had some years ago been caused by an incision which had been made into a suppurating lymphatic in the cervical region. The tumour in question had slowly increased in size without any great amount of pain, until at length the integuments covering it had ulcerated, the diseased growth escaping through the opening thus made, while the skin retracted around its base, leaving it for its whole extent, from below upwards, completely denuded. The mass, in form and size closely resembling a large walnut, was rather hard, somewhat lobulated, and apparently infiltrated with plastic matter. The patient was put under the influence of cod-liver oil and iodide of iron, with external applications of iodine to the tumour, under which treatment the general health greatly improved, while, however, no effect was produced upon the local affection, which, from the disfigurement it produced, was a source of no small annoyance. Anxious though she naturally was to be freed from it, she yet had so great an aversion to the use of the knife that she was very unwilling to have it excised. I therefore determined to try the effect of injections of iodine into the substance of the gland, and for this purpose used an ordinary hypodermic syringe filled with the compound tincture of iodine. The needle being carried into the centre of the tumour, the fluid was slowly injected until it exuded from all parts of the surface, a considerable jet being thrown out, by the elasticity of the structure, when the needle was withdrawn. No pain whatever was caused by the operation, nor did any inflammatory action follow. Seen again a week afterwards, the tumour was found to have decreased to almost half its original size. The injection was repeated, and in the course of another fortnight it had diminished to the size of a small bean, while the new skin was fast filling up the opening. A third injection was made, followed in the course of a few days by the complete disappearance of the growth and the perfect healing of the wound, leaving an almost imperceptible scar. No symptoms of iodism occurred during or after the treatment.

I have not yet had occasion to try the same mode of treatment in cases in which the skin remains unbroken, but the result of this case warrants its employment in chronic hypertrophy of the glands which resists ordinary Medical treatment and external applications, especially as in such cases there would be a greater objection to excision, and the treatment would be attended with less risk of permanent disfigurement. It may also be a question whether such injections might not be employed in the case of other kinds of tumours. The risk of exciting inflammation might be reduced by using at first a less strong preparation.

Devizes, Wilts.

CLINICAL LECTURE

ON A CASE OF

LARGE CIRCUMSCRIBED TRAUMATIC ANEURISM OF THE SUPERFICIAL FEMORAL ARTERY,

RESULTING FROM A WOUND RECEIVED TEN YEARS AND A HALF BEFORE—ARTERIO-VENOUS COMMUNICATION—GREAT DILATATION OF THE FEMORAL AND ILIAC ARTERIES—COMPLETE OBLITERATION OF THE FEMORAL VEIN—THE ANEURISMAL SAC STUDDED WITH OSSEOUS PLATES—TREATMENT BY COMPRESSION OF THE ARTERY: ITS GOOD EFFECT FOR A TIME, BUT ULTIMATE FAILURE—DEATH FROM CHLOROFORM.

DELIVERED AT

The Toronto General Hospital, Canada,

By WILLIAM R. BEAUMONT, F.R.C.S. Eng.,

Senior and Consulting Surgeon to the Hospital.

The patient, John G., aged 45, to the particulars of whose case I am about to call your attention, was sent to me from Hamilton, on account of a very large aneurism seated in the upper part of the right thigh, extending upwards, at the time of his admission into Hospital, to within two inches of Poupart's ligament, its long diameter being fully six inches, and its transverse nearly as great. The tumour pulsated strongly, with a vibratory thrill on its outer side, and its size was diminished by compression of the artery on the proximal side of the sac—the best evidence of the tumour being aneurismal. There was the usual bruit of aneurism—*i.e.*, an interrupted whizzing sound, synchronous with the pulse. A small cicatrix in the skin, about the middle of the tumour, rather to its outer side, marked the site of a wound which he stated he had received about eleven years ago (on July 27, 1855). He had then been stabbed in the upper and front part of the right thigh with a small pocket-knife, in a quarrel about some very trivial matter. The hæmorrhage from this wound was so great that he nearly bled to death, being, he said, insensible, or almost so, for two nights and one day. The wound healed without any secondary hæmorrhage, but there remained for ten years and a half afterwards a whizzing sound, not interrupted, like an aneurismal bruit, but continuous, audible to himself and to others, the sound proceeding from the site of the wound. I questioned him many times as to the sound being continuous, and he was always positive that it was so, and imitated the kind of noise—a sort of continued whizzing or hissing sound: his wife also corroborated this statement. I concluded that a communication had been formed between the interior of the artery and that of the vein (the artery having been transfixed and the vein punctured), the continuous current of blood in the latter striking against the current of blood escaping from the artery into the vein. One could only refer to such a cause the continuous whizzing sound which he said had so long existed. He also stated, on my questioning him, that the sound, though continuous, was increased in intensity at each beat of the pulse, which would, of course, be caused by each influx of blood into the artery, and from the artery into the vein, at each contraction of the left ventricle of the heart. Such a continuous sound, increased in intensity at each beat of the pulse, I met with many years ago in a case of traumatic carotid aneurism, to which I shall again allude.

I will proceed, however, with the case of femoral aneurism. The patient stated that he had heard this continuous sound at the wounded part for about ten years and a half, until December 10, 1865, on which day, whilst on horseback, he felt a sudden pain in the site of the wound, so great as to oblige him to dismount and walk home, supporting himself by the stirrup, the whole thigh soon becoming much swollen. It was not, however, until three months afterwards, in March, 1866, that he observed any distinct circumscribed swelling near the wounded part, so that a period of ten years and a half, or more, intervened between the wound of the artery and the commencement of the aneurism—*i.e.*, before he was aware of any tumour at or near the wound.

He was admitted into Hospital under my care on November 16, 1866, being in good health, save the aneurism, and rather fat and muscular. I put him partially on Valsalva's treatment—*i.e.*, I ordered a spare diet; one pound of bread, one pint of milk, and one pint of gruel daily, with tincture of digitalis, fifteen minims three times a day.

On November 17 compression was commenced by a pad and weight, compressing the artery where it crosses the os pubis. In two or three days this was changed for Signorini's tourniquet, which very effectually stopped all pulsation and bruit in the aneurism.

30th (two weeks after admission).—He had borne the compression well, but not for many hours together. The aneurism seemed smaller, less prominent.

December 7 (three weeks after admission).—The tumour was decidedly smaller. He said that the thigh over the tumour measured an inch less in circumference.

14th.—The aneurism was still smaller; measurement round the thigh less.

24th (five and a half weeks after admission).—The tumour was about the same as on the 14th. He seemed to be gaining little or nothing after this time, not having sufficient endurance of pain to keep up the compression unremittingly for more than a very short time. The aneurism was, however, in progress of cure, for it had become smaller and very hard (except at a part on its outer side) from a large deposit of fibrin.

Towards the end of February (about three months after admission), the patient thought the aneurism had increased in size, and I thought so too.

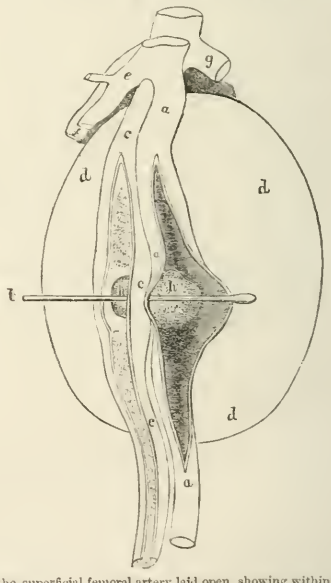
On March 7 I measured the thigh again. Round the right thigh over the tumour it was twenty-four inches, the same as just before his admission into Hospital; round the sound thigh, at a corresponding part, it was twenty inches.

13th.—I was on the point of commencing the operation of tying the external iliac, the patient being insensible from chloroform, when his pulse at the wrist suddenly became imperceptible, respiration feeble, and the face purplish. I dragged the tongue forwards with Liston's forceps; cold water was dashed on the face, ammonia applied to the nostrils, and electricity and artificial respiration were employed, but all without avail. The heart's action seemed to have stopped before respiration had entirely ceased. Chloroform had been administered carefully by one of my colleagues, who dropped it on a napkin placed over the patient's mouth and nostrils; and there was no sign of unusual danger until the moment when his pulse began suddenly to beat feebly, and his lips to become purplish, a few minutes after which he seemed past recovery.

At a post-mortem examination made twenty-four hours after death, the blood in all the large veins and in the heart was found quite fluid, and very dark, almost black. There were unusually many bleeding points in sections of the brain and medulla oblongata, and the pia mater was congested. The heart, lungs, and other viscera were healthy. The body was in good condition as regards muscle and fat, and the rigor mortis was well marked. I dissected the aneurism with a good deal of care. The superficial femoral artery was pushed by it very much to the outer side of the thigh. The artery on the proximal side of the sac was greatly dilated, admitting my index finger, but on the distal side it was much contracted. The common femoral and external iliac arteries, in their whole length, were equally dilated, and somewhat thinned, but healthy. The external iliac was also greatly lengthened, and thrown into a large curve. It measured five inches from the epigastric to the internal iliac. The superficial femoral vein was quite obliterated for several inches below the aneurism, and for about two above it, being much contracted, and filled with a firmly adhering pale reddish-brown fibrin; but at a part of the vein, at the seat of a large opening between it and the artery, there was no fibrin adhering to the interior of the vein, which here remained patent; but the opening of communication between the two vessels, and also the opening from the artery into the aneurismal sac, were plugged almost to occlusion by a firm, smooth, and seemingly organised mass of fibrin, adhering to the greater part of the margin of the latter opening, and being a small portion of a very large mass of dense, laminated, pale brown fibrin (the size of an ordinary orange) growing as it were (like a pedunculated tumour of the uterus) from the margin of this opening into the cavity of the aneurismal sac, surrounded by coagulated and fluid blood, connected with the sac only at its opening of communication with the artery. Thus the fibrin was not deposited, as is usual, on the walls of the sac, but holding a position in the central part of its cavity, surrounded by blood. Of course, no part of the coats of the artery formed any portion of the walls of the sac, which were everywhere well defined, and consisted, no doubt, of condensed connective tissue and lymph exudation, strengthened in places by the firm adhesion of surrounding muscular fibres. The interior of the sac is for the most part curiously, and very unusually, studded over with adhering plates of osseous or calcareous matter, some as large as a large finger nail. It must be of very rare occurrence, for I am not aware of any mention being made of such a deposit in the interior of an aneurismal sac. There was also a small deposit of calcareous matter in the central part of the laminated fibrin, but none in any of the arteries examined. The opening of communication between the artery and vein was about opposite the cicatrix on the skin, leaving no doubt that the opening was caused by the wound. A probe may be passed from the vein into the artery, and then onwards into the aneurismal sac, which is of very large size, measuring in circumference, longitudinally, fourteen and a half inches, and transversely twelve and a half inches. The vein was not dilated. There was no aneurismal varix or varicose aneurism, conditions which result at times from a punctured wound, the weapon transfixing vein or artery, and wounding both, so as to form an artificial communication between the two. The saphena vein was about the usual size, but tense and distended with fluid blood at its junction with the femoral vein. The profunda artery and vein, about four inches from their junction with the common femoral artery and vein, were so completely flattened by compression from this large aneurism that little or no blood could possibly pass through them. They looked like flat pieces of tape rather than cylindrical vessels.

CIRCUMSCRIBED TRAUMATIC ANEURISM OF THE SUPERFICIAL FEMORAL ARTERY—NATURAL SIZE OF THE ANEURISM AND VESSELS.

External Aspect of the Artery, Vein, and Aneurism, the latter being on the Inner Side of the Vessels.



a, a, a, the superficial femoral artery laid open, showing within it a mass of fibrin, *h* (marked by dots), plugging almost to occlusion the opening into the aneurismal sac, and also the opening between the artery and vein. A probe, *b*, is passed through the latter opening. This was no doubt the seat of the wound received about ten years and a half before the aneurism formed, being opposite the cicatrix in the integuments of the thigh.
c, c, c, the superficial femoral vein laid open, showing a mass of fibrin, *h* (part of that which projects into the artery), and also its interior obliterated by fibrin (marked by dots). Both vein and artery are seen to be much contracted on the distal side of the opening from the artery into the aneurism, and the artery much dilated on the proximal side.
d, d, d, the aneurismal sac.
e, the profunda artery.
f, the profunda vein.
g, the saphena interna.

Under all these adverse conditions, I believe that the poor man's death from chloroform was the most fortunate thing that could have happened to him; for had the artery been

tied, the limb must almost inevitably have mortified, even as a consequence of obliteration of the superficial femoral vein alone; but when, added to this, the profunda vein was also incapable of transmitting blood, we may be sure that the return of blood from the foot and leg would have been so impeded that mortification of the limb must have ensued after deligation of the artery—after the current of blood in the other veins had lost the *vis à tergo* which it ordinarily receives from the impulse given to the blood by the contractions of the left ventricle of the heart, and also by the arteries themselves when fully distended at each influx of blood from the heart, these vessels contracting on the blood within them, and alternately with the heart, urging it onwards into and through the veins. This, I believe, would have been one of the chief sources of danger; but there were others. There is at best but a scanty supply of blood to the lower extremity after deligation of the external iliac. It is not always sufficient to maintain the vitality of the limb, and in this case that scanty supply would have been diminished by the complete flattening of four or five inches of the profunda artery, so that blood received by its circumflex branches from the gluteal, ischiatic, and obturator arteries, could not have passed downwards towards the leg, but might, in a retrograde course, have passed upwards to the origin of the profunda, and thence through the superficial femoral artery, and partly into the aneurismal sac.

Thus there were two conditions, each adequate to cause mortification of the limb, had the external iliac been tied—the one being that which would have prevented a sufficient supply of blood to maintain its vitality; the other, that which would have so impeded the return of blood that its circulation would necessarily soon have ceased in the more distal portions of the limb.

Another source of danger was the greatly dilated state of the external iliac artery. A ligature placed around it, dividing its internal and middle coats, would have made an unusually large wound in them, one less likely to unite by adhesion in its whole extent than a similar wound in an artery of but one-half or one-third its size; and, moreover, an unusually large fibrinous plug on the proximal side of the ligature would have been required to assist in resisting the impulse of the blood against the newly-closed vessel when its external coat should begin to give way by ulcerative absorption; and in this way a fatal hæmorrhage would probably have taken place at the seat of deligation, had the patient not previously died from mortification of the limb.

A fourth source of danger was the very large size of the aneurismal sac, which would have been more likely to suppurate than an aneurism of more ordinary size; and although suppuration of the sac does not, as it appears from recorded cases, generally prove fatal, yet it is a condition under which many have died after having safely passed through the other dangers attendant on deligation of the main artery of a limb.

I do not know by what signs one could, *à priori*, have been led to suspect obliteration of the femoral vein. There was no marked œdema of the leg or foot to indicate venous obstruction, but, on the contrary, there was on the leg, when he came into Hospital, a large old ulcer, which healed completely merely from the influence of the patient's long continued recumbent position, showing that the supply of blood to the parts beyond the aneurism, and its return to the heart, were not so much interfered with as one would have expected from the condition of the femoral vessels; but it would have been far otherwise after stopping the current of blood through the external iliac artery. The limb, I think, must inevitably have perished, not only from the want of a sufficient supply of blood, but also from the want of a sufficient force to return the blood supplied.

One very unusual point in the history of the case is the long period which elapsed between the receipt of the wound and the formation of the aneurism. Traumatic aneurism usually follows almost immediately the wound of the artery. In the cast which I show you is represented a traumatic aneurism of the left common carotid, which commenced by a small swelling the day after the artery was wounded, the swelling gradually increasing for eight weeks, when the patient came under my care in this Hospital (in January, 1854). The aneurism being close to the clavicle, it would have been very difficult and very dangerous to tie the artery where wounded, or on the proximal side of the wound, so I adopted fully Valsalva's treatment, and in ten weeks there remained no vestige of this conical, very prominent, though not large aneurism. In this case I feel little or no doubt that there was also a permanent communication between the artery and vein—the internal jugular. The details of the case are in the *Lancet* of July 29, 1854, in a clinical lecture which that journal did me the favour to publish.

NOTES ON THE HISTORY OF SYPHILIS.

By GEORGE GASKOIN,
Surgeon, Chevalier of the Order of Christ, etc.

No. II.

The political condition of Spain about the time of the expedition of Columbus was as follows:—Grenada had been besieged and taken. Of the army lately assembled before its walls, containing, in unequal proportions, representatives of every European nation, a great part gradually found their way out of Spain, seeking for employment elsewhere. The Jews were expelled in the summer of the year 1492. Sicily belonged to Arragon, and was in close communication with Barcelona. An illegitimate branch of the Arragonese family reigned in Naples, which city, according to Diaz de Isla, had many Spanish families among its inhabitants. The national mind in Spain was at this time greatly stirred about the possession by the French of the northern fortresses in Cerdagne and Roussillon. The latter province was especially a subject of anxiety, as its possession opened the pathway into Catalonia, and in the mind of many its recovery was thought more important than the acquisition of Grenada. In the course of the year 1494, Charles VIII. of France was collecting troops on the frontier, which were really intended for the conquest of Naples, but which were ostensibly and ostentatiously recruited for service against the Turkish power. The opportunity seemed a good one to the wily Ferdinand to get back his provinces without repayment of the 200,000 crowns for which they were in pledge to France; and Charles, on his part, feared to leave an enemy in his rear when away on his path of conquest. The treaty of Barcelona was made and signed January 19, 1493. By this deed Charles delivered up the provinces, and Ferdinand concluded with him an alliance *offensive and defensive, promising to aid him with men and money to the extent of his power against all enemies, "the Vicar of Christ excepted."*

Diaz de Isla says, with cautious particularity, that, when Charles VIII. of France entered Italy, "there went many Spaniards in his host, and they infected the French camp, and they (the French) did not know whence it came, and thought the air of the country disagreed with them." The Milanese, who introduced Charles into Italy, were the most licentious people of that time. He was himself a licentious king, and he lay ill for a month at Asti, in Piedmont, detained by a venereal infirmity of otherwise uncertain character. Charles arrived in Rome at the close of the year, at a time when it was suffering deeply from a typhus brought into Italy by the Jews who got mixed up with the Moors in their later emigration; hence it was called "the plague of the Moriscoes," as described by Zurita, Infessura, and other historians. Naples had lost 20,000 inhabitants by the same plague in the year previous. The city of Genoa was in like condition. (The resemblance was perfect to the Circassian exodus which has happened in our times.) Many writers have managed to confuse this pestilence with syphilis. At Villetri, as Charles moved from Rome to Naples, Spanish ambassadors made their appearance in his camp, and, on being granted an audience, offered mediation between the contending nations, and this being rejected they warned the king from off Naples, as being a "fief of the Church," and with the greatest haughtiness tore up the treaty of Barcelona in his presence, at the same time commanding certain Spanish knights in the service of Charles to leave the camp forthwith, under penalties of treason.(a) According to this view, the French took syphilis in their ranks with them into Naples, and doubtless found it there, in each instance proceeding from the same source—that is, from the city of Barcelona.

The French army in possession of Naples subsequently divided in twain, and half of them returned through Italy to France, nor until shortly after their departure did a Spanish relieving army arrive in the Neapolitan territory in the month of May, 1495—that is, two full years after the return of Columbus from Haiti, and one year after the return of twelve ships under Antonio da Torrez from thence. At this time, according to Oviedo, not only common people, but even the

(a) See Prescott's "Life of Ferdinand and Isabella."

gentry of the Court of Spain were affected. Oviedo has been much criticised for asserting that this Spanish army, in which he was present, brought syphilis to Italy. What he says, and what is sufficient for our purpose, is as follows:—"This plague affected many of the Spaniards who came with the admiral to discover these countries, which, from its being a contagious disease, was likely to occur; and when they returned to Spain, and this complaint appeared, it passed from thence to Italy and to other parts.(b)

Dr. Bonifacio Montejo has rendered inestimable benefits to Medical science by the attention he has directed to the authentic copies of the work of Diaz de Isla, little known in Europe but by the faulty Latin translation of Welschius. Two editions of the work of Diaz are preserved in the royal library of Madrid; one of them dates A.D. 1539, the other A.D. 1542. They were published for the Hospital of All Saints at Lisbon; the last one at his own expense, at a time when De Isla was an inhabitant of Seville. The discovery of a Codex,(c) or first cast, in the royal library of Madrid, preserved with these editions, constitutes one of the most interesting and important biographical discoveries of the age. From the contents of this Codex, and marginal notes attached, it may be ascertained to have been completed at the latest in the year 1521, and probably no later than the year 1510, being so much the more interesting as it approaches nearer to the occurrences it describes; and, moreover, the important passages we have quoted (in our last paper), and others of importance, we may say vital, to the subject are contained, word for word, in this rough cast, and in both editions sometimes there are passages to one and the same purport, in the later edition with altered text, for merely stronger asseveration of the truth. The writings of this honoured and conscientious man afford the best proof of his sincerity. In concluding his prefaee he says, "And I ask indulgence of my readers if an error should have slipped in; it will not have proceeded from any want of sincerity, for my intention is wholly good." And in the licence accorded him by the King we read the words, "The following sheets having been brought under notice of our Council, they committed the same to our proto-medicos, so as to have a just opinion, and in *certain passages they have amended it.*" So that this work reaches us with the approval of many Physicians of that time. His evidence is direct enough; he says in the second edition, "Because of all these things my experience is complete, for I had under treatment persons who suffered from the disease in that fleet before they arrived to land, in which fleet there were other persons suffering besides themselves, and I treated persons in Barcelona who suffered from the disease before the King of France went to Naples, and many are the proofs I could have given which now are not available." In the first edition the words are to the same effect, but the allusion to the King of France is omitted.

(b) Oviedo, lib. ii., cap. iii., page 50

(c) For ampler details on this subject consult the *Siglo Medico* A.D. 1857, page 71, corresponding to March 1 of that year; also "La Sifilis y las enfermedades que se han confundidos con olla," by Dr. B. Montejo, now under publication in the library of the Pabellon Medico, Madrid, A.D. 1863-4.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

Since our last report on the practice of this Hospital several alterations have been projected; thus, Dr. Jenner has resigned the chair of Practice of Physic in the College, but has retained his post as Physician to the Hospital, whilst Dr. Hare has resigned his post as Physician to the Hospital. By these changes Dr. Reynolds has become Professor of the Practice of Medicine, and Dr. Wilson Fox will probably succeed him as Professor of Clinical Medicine, all the Assistant-Physicians getting an upward step, and a vacancy being formed for a new appointment. The probable candidates we have not yet heard named.

On the occasion of one of our recent visits we had the great pleasure of seeing a post-mortem examination conducted by Dr. Jenner, who is justly famed for his powers of rendering even an ordinary investigation very profitable to the on-lookers. This case happened to be one of unusual interest. One often hears of cases of so-called acute tuberculosis, but the term is most frequently applied to instances of what our forefathers used to call "galloping consumption," when patients die with all the appearances of advanced phthisis after six or eight weeks' illness; but the case of which we have to speak is of a much more uncommon east.

A servant girl, aged 25, was on June 6 rather out of sorts, but nothing particularly wrong was noticed; even on the 9th she only complained of headache, but on the 10th she felt so ill that she was obliged to keep her bed. On the 14th she was brought to the Hospital. When admitted, she complained of little beyond a slight frontal headache; yet it was evident that something unusual ailed her, from her pale face, dull eyes, dry, brown, and tremulous tongue, and the sordes on the lips and teeth. But what was it? The condition of the chest was normal, but the abdomen seemed rather full and tender on deep pressure. There were no spots on the surface, whilst the pulse was full, regular, and only beating 72 a minute. The diagnosis lay between tuberculosis and typhoid fever. By evening all aid to be derived from the patient's sensations was removed, for she became totally insensible. The thermometer, also, which might have given some indication, was at fault, the temperature being 103·2°—the temperature of fever rather than of tuberculosis. On the evening of the 15th her pulse was quicker—120—regular, and of fair strength, but otherwise she was extremely prostrate, and died on the morning of the 16th, exactly ten days from the time she first felt out of health, and six from the time she took to bed. The mystery which surrounded the case in life was removed by a post-mortem examination, which showed the whole peritoneum thickly studded with tubercles, and the omentum thickened by a deposit of the same kind. The mesenteric glands were enlarged, and the peritoneum round them somewhat vascular; but there was only a small quantity of fluid in the cavity of the abdomen. There were tubercles in the stomach, tubercles in the kidneys, tubercles in the pleura, and many tubercles in the lungs. Tubercles there were also in the pia mater of the brain, about the fissure of Sylvius, and the cerebral ventricles contained an unusual quantity of fluid, whilst the brain matter around was somewhat softened. In fact, it was apparent that the whole body was tubercular, and that the patient had died of acute tuberculosis.(a) This interesting case, being in the wards along with a case of typhoid fever, afforded Dr. Jenner an opportunity of making some valuable remarks on the subject of the latter complaint, which we are sure our readers will thank us for making more public.

Of all rapid and acute diseases, Dr. Jenner thinks that typhoid is the one which commits the greatest ravages among young people, and that, too, in a guise not very easily detected at all times, for the eruption is far from constant. But there is one clue, which may be often available when no others are. This, says Dr. Jenner, is enlargement of the spleen, which commonly occurs in this form of disease. A case in point fell under his notice not long ago. A boy fell ill of typhoid, but gradually recovered, and was sent on a visit to another part of the country. He did not, however, seem to thrive, and the question arose whether his complaint—for it practically amounted to that—was the result of dietetic irregularity, or was a distinct relapse of the fever. There were no spots, and there was no diarrhœa, but the enlarged spleen enabled Dr. Jenner to make a positive diagnosis of relapse of the fever. Of all the facts he has been able to make out in connexion with this important disease, Dr. Jenner himself looks upon two as being the most valuable—viz., the limitation of the abdominal complication to the glandular system, and the fact that if headache prevail throughout the disease, this is due to cerebral mischief, not to the disease itself. With regard to treatment, nobody now-a-days attempts to avert or to cure a fever, yet there are probably few diseases in which a skilful Physician can do more for the benefit of his patient, and this in various ways. In the first place it is known that, provided we can keep a patient alive a certain time, the disorder will pass away; hence, by studying the tendencies to death, and by obviating these, the patient may be enabled to tide over this critical period, and so be restored to health. But it is not with these tendencies alone that the Physician has to deal, for throughout the whole of the disease complications of various kinds are liable to spring up, and these also must be combated. At the bottom of the whole matter, however, Dr. Jenner thinks, there is the intense prostration

(a) We are indebted for the notes of this case to Mr. Tempest Anderson, Dr. Jenner's clinical clerk.

produced by the fever, tending to cut off the patient by pure weakness. This is to be neutralised by the exhibition of stimuli and such food as can be digested. The bowels are also apt to be attacked, as is well known, and as bleeding frequently follows the ulceration of Peyer's patches, the patient may be thus directly weakened, as well as indirectly by the diarrhœa; but the Physician steps in, and an enema of a little starch water may save the patient. Opium, as tending to increase the depression of the disease, should be avoided as far as possible, although it may be necessary to exhibit a small quantity of laudanum along with the starch. Bronchitis is another common complication, and here also opium is to be avoided, its effect being to obscure sensibility, to allow the secretion of the mucous membrane to accumulate, and thus still further to deteriorate the blood by impeding respiration; rather should the disorder be treated with stimulants. Again, as the heart is paralysed by the poison in the system, as well as the other organs of the body, its beat is but feeble, and can drive the blood with but little force; hence, in big-chested people, there may be some difficulty in forcing the blood through the lungs, so that congestions and pneumonia are apt to supervene. Whatever, therefore, will tend towards improving the condition of the heart will tend to obviate this, which is one of the most untoward events likely to occur in the course of the fever. But there is one other complication which Dr. Jenner thinks is more frequently overlooked than most, and which is more than ordinarily fatal—it is congestion of the kidneys, resulting from the impaired strength of the circulation, and from their ordinary dependent position, just as is the case with the skin of the back. This occurs more especially towards the end of the fever, and is to be carefully treated, or albuminuria and uræmia will soon carry off the patient. Dr. Jenner thinks that gentle local stimulation, as by warm poulticing and hot fomentations, not by such powerful agents as cantharides, is the best remedy.

In a former report we alluded to the value of salines in the treatment of eczema, and a better illustration could scarcely be had than a case recently under the care of Dr. Jenner. The patient came in covered from head to foot with the eruption, but after a short time the alkaline purgatives effectually dispelled it.

Of late considerable attention has been paid to a disease of the bones known as osteo-myelitis. It is most commonly seen in camps and military Hospitals after gunshot wounds, especially where the bones have been comminuted, but it is occasionally seen in civil practice. This disease was very prevalent among the wounded in the French campaign in Italy, and still more so during the late American war, causing, in fact, a large proportion of deaths. It almost invariably ended in pyæmia. This, however, is not always the termination, as a case we noticed under the care of Mr. Erichsen will show. The patient, a boy, had been operated on for malignant disease of the leg, his limb having been removed at the middle of the thigh, but he did not do well, the stump became enlarged, and the glands in the groin swelled up; the wound assumed an unhealthy aspect, and fears were entertained lest the disease had returned But no. Gradually, under soothing treatment, his condition ameliorated, until no marks of disease remained, except the fungus-like protrusion from the divided bone, so characteristic of the disease referred to. No symptoms of pyæmia were, however, observed, showing that it is not an infallible result of osteo-myelitis, notwithstanding that the vessels in the diseased bone, being prevented from contraction by their attachments, are open to the reception of the morbid pus.

No deformities are, we think, more painful to the beholder than those produced by contractions of the cicatrices left after extensive destruction of the surface by burns or scalds, more especially as these so frequently occur in connexion with the face, neck, or upper extremities. Under Mr. Erichsen's care we noticed several little sufferers from this cause; in one, incisions had been made into the cicatrix, but this mode of treatment is not invariably followed by permanent improvement, except in situations where extension can be kept up for a length of time. The same child had also been burned in front of the elbow-joint, and the contracting cicatrix produced permanent flexion of the forearm; to remedy this, Mr. Erichson had recourse to a jointed splint, with a rack and pinion movement, by which he ultimately succeeded in effecting complete extension of the limb, without any great inconvenience to the patient.

This case recalls to our recollection another of great interest which we observed under the care of Mr. Marshall, illustrating those "cases which bone-setters cure." A labourer, some seventeen weeks before admission into the Hospital, was working at an embankment, when a mass of earth gave way and struck him on the shoulder. For seventeen weeks he had been unable to move his arm at that joint, and all attempts at doing so on the part of another were accompanied with intense pain at the ordinary situation —the insertion of the deltoid. When he came under Mr. Marshall's care it was impossible to say whether there had been any fracture or not; if there had been there was no displacement, union was complete, and the head of the bone was in its proper position. Whence, then, the fixture of the joint? No doubt from adhesions in its interior which had been thrown out immediately after the injury, gluing one portion to another. Such a case as this is a godsend to a bone-setter: he twists the limb about, produces excruciating pain, but breaks up the adhesions and frees the joint. Often the rupture of these new formations is audible, and this goes for the snap of a replaced bone, when the triumph of the bone-setter and the discomfiture of the Medical man—supposing one to have been engaged in the case—is complete. What, then, is to be done with such joints? Mr. Marshall's procedure supplies us with a ready answer. Essentially the practice must be the same as the bone-setter's, but we have a powerful auxiliary in chloroform, which not only renders the patient insensible to pain, but does away with the tense and resisting condition of the disused muscles. After this, though there may be some pain at first on attempting movement, owing to the irritation set up afresh within the joint, perseverance in passive followed by active movements will, as in the case before us, ultimately effect a perfect cure.

Under Dr. Reynolds's care was a woman labouring under incessant and most obstinate vomiting. Sarcinæ existed in large numbers in the vomited matters. For these vegetable growths the sulphite, bisulphite, or hyposulphite of soda is commonly used, but Dr. Reynolds prefers using the pure sulphurous acid. He recommends the sulphurous acid to be made in the ordinary way, and to be passed through water until the latter has dissolved up as much as it will take. This saturated solution is to be diluted until the acid is no longer disagreeable to swallow, when an ounce should be given before each meal. The sarcinæ may be thus destroyed; yet they are apt to return, as will other parasites, until the conditions on which their presence depends have been removed.

Every one knows how vexatious are the cases which follow railway accidents, and how difficult it is to separate the true from the sham injuries. With all such cases there is mixed up the question of remuneration or damages—a complication very much to be deprecated in the interests of Medicine. It is therefore a matter of some little consequence when purely accidental injuries of a like nature turn up, and such a case was recently under the care of Mr. Erichsen. The great attention this gentleman has paid to injuries of the kind is well known, and the results of his experience as to treatment are consequently of great importance. The patient referred to was a shipwright, and, along with three companions, was carrying a heavy log of wood, when the two at the end farthest from this man allowed it to fall, thus giving a severe jar to the two at the opposite extremity, especially to the patient, who was taller than his comrade. He felt ill at the time, but was able to walk home; but he was unable to pass water for some days, and his stools were slightly bloody. At no time previous to coming under Mr. Erichsen's care had he any paralysis of his lower extremities, although he complained of a feeling of numbness in them. When he came into Hospital some weeks after this accident, his sight was slightly affected, and he complained of occipital pains, whilst his back was painful on pressure from the ninth or tenth dorsal to the sacral vertebræ. The pain also extended around the lower ribs and upper part of the abdomen, and he had great difficulty in walking. This was in the month of May. He was ordered dry cupping over the loins, which relieved him immensely, and calomel and opium were given by the mouth. At first his limbs did not improve much, but when his gums became affected he got better very fast. After a time blisters were applied along the line of the spine, and within a month he left the Hospital comparatively well, although he was almost helpless when he entered it. In this case we have a favourable instance of spinal meningitis following a severe jar, and we see the case uncomplicated by any desire on the part of the patient to make himself out worse than he really is. He is still improving, but is far from well;

as a rule, says Mr. Erichsen, those who do not recover within a twelvemonth will never do so at all. We were particularly struck with the rapidity with which the symptoms disappeared under the above treatment.

Under Mr. Thompson's care are several cases of unusual interest, from which, more especially with the aid of Mr. Thompson's experience, the visitor may learn much. One patient (a case of supposed stone in the bladder) came under Mr. Thompson's care some time ago, with a bladder so irritable that he could not retain his urine even for a few minutes at a time, passing it as often as twenty-four times in the daytime, sometimes two or three times in the course of a meal. Mental influences had considerable effect upon it; if the patient became at all excited, it came oftener. Yet there was no pain in the penis, no blood in the urine, and seldom any pain in the back. When sounded no stone could be felt, and with all this the urine was perfectly natural and healthy in every respect — in fact, no cause could be assigned for the complaint. The remedy, however, was more apparent, for belladonna, exhibited as suppository and given by the mouth, speedily improved his condition amazingly, but he is not yet well. A hint *apropos* of this case may not come amiss to some of our readers, who have, doubtless, been troubled with cases of unhealthy urine containing much mucus mixed, it may be, with pus—consequently apt to decompose, become ammoniacal, deposit its phosphates, and irritate still more the already irritated bladder. They may have tried all the recognised and time-honoured remedies, including Brodie's favourite, Pareira, and yet have done no good. Under such circumstances, let them not forget a remedy sometimes ordered by Mr. Thompson — a common field plant, *Alchemilla arvensis*, or parsley-piot, an infusion of which (one ounce to one pint) will often succeed where more pretentious remedies have failed.

Another case was one of stricture, but in a not very common situation, being about two inches from the extremity of the urethra, dense and impermeable as they are apt to be in this situation if not early treated. These Mr. Thompson dilates until he can introduce a urethrotome, he then divides the structure, and introduces a No. 10 catheter for some forty-eight hours. Dilatation in this situation is useless. There is too much fibrous tissue and too little of the spongy texture; whereas further back, and nearer the bulb, where the reverse is the case, dilatation, forcible or otherwise, is the preferable operation. Under the care of Mr. Marshall is a case which was operated on many years ago—indeed, it was one of the first in which Syme's operation was performed; but, as is well understood now, this operation is not equally adapted to all strictures, and in this instance it did not suit well, for abscesses formed, symptoms of pyæmia set in, and it was only by dint of large doses of quinine that the patient got over it. But although he recovered for the time being, the stricture was not removed, or rather it returned, a fistulous opening formed behind it, and he had to return to the Hospital. The stricture was got over by gradual dilatation, and the opening was closed by the galvanic cautery; but neither was it this time permanently cured, and the whole process has even now to be repeated from time to time.

Speaking of the galvanic cautery reminds us of a case under the care of Mr. Thompson. The man had been successfully operated on for stone—by the median way and with bilateral section of the prostate, a plan of which Mr. Thompson is fond—but the wound did not entirely close, so Mr. Thompson resolved to make use of Mr. Bruce's new gas cautery. A description of this ingenious little instrument has already been given in these columns, so we need say nothing on that score. Suffice it to say that it is extremely valuable where it can be applied directly to the spot. It does not seem to be so handy, when it has to be introduced into a cavity like the rectum or vagina, as the galvanic cautery, but its comparative cheapness and accessibility are strong counterbalancing advantages.

We also observed a man who had been suffering from varicocele on whom Mr. Marshall had operated in what appeared to us a very ingenious manner. The enlarged vessels were carefully separated from the vas deferens, and a needle threaded with silver wire introduced between the two, the needle pushed back, and the ends of the wire cut so as to leave a loop at one side and a couple of projecting ends at the other. A similar process was gone through at the same spot, only in the second operation the loop was left at the side on which the ends were in the former case, and *vice versâ*; also, instead of passing behind the swollen vessels, it passed in front of them, the veins thus separating the parallel wires. The ends of the wires were then passed through the corresponding loops and drawn tight, so as to strangulate the veins. The free ends were then brought together over a roll of lint, for the protection of the skin. When ready for removal a little pushing causes the stout wires to separate at the point where they strangulate the vessels, so that each can be drawn out by its loop. Two, three, or four of these pairs of wires may be used, as the case may require, and the result is satisfactory in the extreme.

In the way of diagnosis, again, we observed Dr. Hare make use of a remarkably useful little apparatus, for it is often a matter of very great importance in the case of abdominal tumours to ascertain *exactly* how rapidly they increase, and in what direction they chiefly do so. Under Dr. Hare there are at present several most instructive instances of this. Not satisfied with mere outline figures and rough guesses at dimensions, he makes use of a square framework crossed by elastic threads, subdividing this large square into a number of spaces, each four inches square, whilst on a drawing pad he has a paper also subdivided into squares, having a certain given relation ($\frac{1}{2}$th or $\frac{1}{4}$th the size) to the squares of elastic. The frame is placed on the abdomen, and he is then enabled to draw the exact size of the abdomen on the small card. By careful palpation and percussion he makes out the outline of the tumour, and marks it off on the skin by a lithographer's crayon (by far the best means of marking on the skin—a thing not readily managed), whence, by the aid of the squares aforesaid, he can readily and exactly transfer his dimensions to his outline figure, and by the same means compare the two at any subsequent date.

A curious case from a diagnostic point of view was recently under the care of Mr. Marshall. A woman came into Hospital complaining of intense and incessant pain in the loins, extending down her legs, but with no other symptoms. She had been treated for neuralgia—she had been treated for uterine disease—but all to no purpose, when, suspecting some bone mischief, she was put under iodide of potassium with speedy and marked improvement, and left the Hospital greatly benefited by her treatment. In no very long time, however, she returned, this time with nodes in various parts of her body, and periosteal inflammation of the metacarpal bones. The case was now clear, and it turned out on inquiry that she had a syphilitic history. The use of iodide of potassium *in large doses* has already been repeatedly advocated in these columns in the management of syphilitic subjects, and one well-marked illustration of the value of this mode of treatment is at present in Mr. Thompson's wards. The young man came into Hospital with horrible rupia of the face, and was rapidly put under the influence of iodide of potassium, at the rate of sixty grains a day. In no long time he was better, and able to go out, but returned with one of his lower eyelids nearly gone. Again he was put upon these large doses of the iodide, and in a few days the ulceration was stopped and the eyelid nearly healed. A similar line of treatment has been adopted with great benefit in the case of a man who for eight years has laboured under gonorrhœal rheumatism, now better and now worse; but when he gets worse the large doses of the iodide never fail to relieve him.

Finally, in taking our leave of this Hospital for a time, we must express our admiration of the results obtained with its comparatively limited resources in the way of beds; for the amount of information to be there acquired would surprise some who have been accustomed to more extensive institutions. We also beg leave to tender our thanks to the various officials for their kindness and courtesy.

THE prizes of the year will be distributed publicly, in the theatre of St. Mary's Hospital Medical School, on Monday, July 29, at 3 p.m, by Dr. Alderson, F.R.S., President of the College of Physicians, and Consulting Physician to the Hospital. Dr. Alderson has been connected with the Hospital and School, as Senior Physician and Lecturer on Clinical Medicine, from their commencement. A numerous attendance is expected of the friends of the School and Hospital, and neighbouring Practitioners, to greet Dr. Alderson on taking his place perhaps for the last time officially in the theatre. In accordance with precedent, he resigned his Hospital appointments on becoming President of the London College of Physicians.

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Medical Times and Gazette.

SATURDAY, JULY 27, 1867.

WATER ANALYSIS..

As we said in our last number, the existing methods of analysis do not afford sufficient test of the wholesomeness of water. It is notorious that just during the months when the "organic" constituents of Thames water are at their highest, diarrhœa is at its lowest, and *vice versâ*. The eminent chemists to whom we are indebted for the monthly analyses have evidently been aiming for some time at determinations of the *quality* of this organic matter. The chemical staff also of the London Institution, in honourable rivalry, are aiming at more searching methods of analysis.

It is suggested that the analyses of Drs. Frankland and Letheby are liable to serious errors, which render their use as sanitary prognostics unsatisfactory. Let us, in the first place, glance at the method of analysis pursued in Dr. Frankland's laboratory. It is that which was some years since suggested by Drs. Hofmann and Blyth to the Board of Health for the estimation of the "putrescible organic matter" which renders water poisonous. This consists in the determination of the total amount of nitrogen in a water and the subtraction from it of the amount of nitrogen present in the form of nitrates, nitrites, and ammonia, the difference being supposed to give the amount of nitrogen in organic combination. Such, we say, have been the data upon which Dr. Frankland has drawn his conclusions as to the existence of sewage matter in Thames water; and the fact that he affirms that the water supplied by most of the companies was slightly contaminated by sewage in February, free from sewage in March, and was tainted in May, has led many of his *confrères* to suspect the accuracy of his process. But, apart from this, two objections are raised to the "subtraction" method. Firstly, the difference between the nitrogen present in inorganic forms in combination and the whole of the contained nitrogen is all but unattainable in practice; and, secondly, the organic matter in water undergoes decomposition during evaporation to dryness. For these reasons it is said that Dr. Frankland's analyses are imperfect indications of the hygienic qualities of the water submitted to them.

As for the other method;—"loss by ignition," no doubt, constitutes a rough estimate of volatile organic matters, ammonia and nitrates and nitrites, but beyond this it has little value; and further, it is liable to the same error as Dr. Frankland's process—viz., that during evaporation and ignition a certain proportion of the "putrescible" organic matters may undergo decomposition and be lost. Respecting the method of estimating organic matter by the permanganate of potass test;—in the first place, there is the alleged difficulty of keeping a standard solution of potassic permanganate, and the uncertainty of any corroborative test, such as ocular examination of the water through tubes. These, however, are trifling obstacles compared with what we must now regard as proven—viz., that potassic permanganate is an extremely uncertain oxidiser, and that, while in some cases it completely oxidises organic matter, in others it hardly affects it, and that its effects may be diminished or increased by altering the character of the solution. In fact, the readers of the *Chemical News* will remember that a few weeks since Professor Frankland published in that journal, and recited in his lecture at the Royal Institution, a list of substances all of which were to a very slight extent affected by the oxidising power of the permanganate.

Since, then, neither of the processes we have referred to is adeqnate to the necessities of public hygiene, it is satisfactory to find that Messrs. Wanklyn, Chapman, and Smith are proposing a plan which aims at perfection, if it does not reach it, and which, as Dr. Thudichum said at the meeting of the Chemical Society, may one day throw "light on the constitution of rice-water evacuations." The new method consists in distilling the water to be examined with sodic carbonate (*alias* carbonate of soda), potassic hydrate, and potassic permanganate. The process is divided into parts. In the first the water is treated with sodic carbonate, and submitted to several rapid distillations. By this means all the free ammonia and the ammonia derived from urea passes into the receiver, and is then readily estimated. In the second part the water is successively treated and distilled with potassic carbonate and potassic permanganate, and by this means all the albuminoid organic matter is converted into ammonia and passes into the receivers, and is estimated in the usual manner. Hence we have in this plan a reliable means not only of determining the whole quantity of organic matter present in a sample of water, but of drawing a tolerably valuable distinction between the percentages of inert and poisonous matter. Although Professor Wanklyn's plan was not described to the Chemical Society till June 20 last, it has since that date been put extensively in operation, and we have been favoured with analyses of the waters of the several London pumps, of the water of the Thames at various points of its source, and of the water of the Bala Lake, from which it is proposed to supply future London. It appears from these returns that the Thames water near Hampton is far from possessing that purity which is often attributed to it, and, further, that the water from the Bala Lake is quite as bad as that of the Thames. We subjoin the tabular results as given in our excellent contemporary the *Laboratory*, July 20:—

Thames near Hampton Court.

Source.	Parts in 1,000,000. Ammonia as such and as urea.	Ammonia from albuminoid matter.
Above the weir, unfiltered . .	0·045	0·280
Below the weir, unfiltered . .	0·015	0·230
Water of the Bala Lake, unfiltered .	0·01	0·21

In this condition of things we must look to the chemists for some cheap and more certain method of filtration and oxidation; for if we implicitly accept their inferences as well as their analyses of our present supply we shall be compelled to exclaim with the "ancient mariner"—

"Water, water everywhere, but not a drop to drink."

CLAUDE BERNARD'S RECENT WORKS.

There is probably no living physiologist who has contributed so largely to the advancement of scientific Medicine during the last sixteen years as Claude Bernard. As early as 1851 he established his reputation as a physiologist by his "Experimental Researches on the Functions of the Spinal Accessory Nerve." This memoir, which was published under the auspices of the Academy of Sciences, was followed in 1853 by his celebrated essay on "A New Function of the Liver," in which the sugar-forming property of

that organ in man and animals was first announced, and although his views have been somewhat modified by the later researches of Pavy, McDonnell of Dublin, and others, the discovery (even if incomplete) will ever form a well-marked epoch in the records of physiology. In 1856 he brought out his "Memoir on the Pancreas," in which he maintains that the essential purpose of the secretion of that gland is to promote the absorption of fatty matters by reducing them to the state of an emulsion which is capable of finding its way into the lacteals. In addition to these special memoirs, he has published at least six portly octavo volumes of lectures between the years 1855 and 1859 on "Experimental Physiology applied to Medicine," "On Poisons and Medicines," "On the Physiology and Pathology of the Nervous System," and "On the Physiological Properties and Morbid Changes of the Liquids of the Organism;" and besides these collective lectures, edited by himself, several of the Medical and scientific journals have published *verbatim* reports of various of his most important courses. For example, an admirable course of lectures(a) "On Experimental Pathology" was specially reported for this journal in the years 1859-60, and must be still fresh in the memories of most of our readers; and the *Revue des Cours Scientifiques* has recently published twenty-five lectures delivered in 1864, "On the Properties of the Living Tissues," which have since appeared in a separate volume under the editorship of M. Emile Alglave.(b) M. Bernard's latest work (if we except the last-named course of lectures, for the publication of which he is not responsible) is his "Introduction to the Study of Experimental Medicine," which is to be considered as a first instalment of a large work on "The Principles of Experimental Medicine," which is now in the press. Our author, in this introduction, lays it down as an universally admitted principle that the great problem which it is the object of scientific Medicine to solve, is the *preservation of the health and the cure of diseases.* Experimental Medicine embraces, according to his views, three fundamental parts—physiology, pathology, and therapeutics. The knowledge of the causes of vital phenomena in the normal state, or *physiology*, leads us to maintain the normal condition of life; in other words, teaches us how to preserve the body in a state of health. The knowledge of diseases, and of the causes which induce them, or *pathology*, leads us, on the one hand, to anticipate the development of these morbid conditions, and, on the other, to attack morbid processes by the due application of medicinal agents, and thus, as far as possible, to accomplish the cure of diseases. The three great departments of scientific Medicine, physiology, pathology, and therapeutics, can no longer advance in separate and independent courses, as was the case in the empirical period of Medicine, but they must naturally assist and react on one another. Scientific Medicine, according to our author, can only be established by the method of comparison. Its base is physiology; and the sound knowlege of pathology can only be obtained by a previous knowledge of physiology, in just the same manner as the therapeutic action of abnormal agents or medicines can only be properly understood by the previous study of the physiological action of the normal agents which maintain the ordinary vital phenomena. From these general ideas M. Bernard proceeds to the consideration of the three following subjects:—(1) Experimental reasoning; (2) on experiments made on living beings; and (3) the application of the experimental method to the study of vital phenomena. The second of these subjects naturally includes the consideration of vivisection; and, although one who has "slain his thousands and tens of thousands" can scarcely be deemed an impartial judge, we must admit that it would be no easy task to controvert the arguments which he advances in its favour. "Without this mode of investigation," he observes, "physiology and scientific medicine would be impossibilities. In order to comprehend how man and animals live, it is indispensable to watch many of them dying, since the mechanism of life can only be revealed and understood by the knowledge of the mechanism of death." After recapitulating the historical evidence that the vivisection of condemned criminals had been practised with general approval by the Alexandrian school three hundred years before the Christian era, and occasionally in later times, he refers to Galen as "the founder of vivisection of animals," and mentions his experiments on the destruction of the spinal cord at different heights; on the perforation of one and both sides of the chest; on the section of the recurrent and intercostal nerves; on the mechanism of deglutition, etc. He quotes the names De Graaf, Harvey, Aselli, Pecquet, and Haller as "eminent vivisectors," and refers with pride to his countryman, Magendie, whose influence has led to the definite recognition of vivisection as a constant and indispensable part of the study of physiology and Medicine. He then discusses the questions—Have we the right to practise experiments and vivisections on man? Are experiments or vivisections on condemned criminals justifiable? Have we the right to make experiments and vivisections on animals? We must refer our readers to his work for answers to the first two questions. To the last question he replies:—"For my part I believe that we possess this right to the fullest and most absolute degree. It would, indeed, be strange that, while man has the universally-admitted right of employing animals for all the purposes of life—for domestic services and for food—he should be prohibited from employing them as a means of instruction in a science which contributes more than any other to the welfare of mankind. This is a question that admits of no hesitation. The science of life can only be established by experiments, and we can only learn how to save living beings from death by the sacrifice of other animals." Experiments must be made both on men and on animals. He proceeds to add that Physicians should never try a dangerous experiment or a poisonous drug on their patients until they had previously made the same experiment, or tried the same drug on dogs, for a skilled experimenter can always draw conclusions from his observations on animals which in all respects apply to the human subject. He deems it superfluous to follow the example of Le Gallois and other experimentalists in defending physiologists against the charge of cruelty. "It is the *idea* which gives to facts their value and significance. The vile assassin, the hero, and the warrior, equally plunge the dagger into the breast of their fellow-creatures; but they materially differ from one another in the idea which directs the blow. The Surgeon, the physiologist, and the blood-thirsty tyrant are equally mutilators of their living fellow-creatures, but how completely are they distinguished by their different actuating ideas!"

There is much that we should gladly quote if space permitted from his chapters on normal and pathological anatomy in their relation to vivisection; on the diversity of animals submitted to experiment, and on the selection of the most appropriate animal; and on the physiological laboratory and the different means necessary for the study of experimental Medicine.

The third and concluding part of the volume is by no means the least interesting; and we would especially recommend to those of our younger readers who may be commencing their studies in the physiological laboratories which have been recently established in our best Medical schools, the careful study of the chapters headed "Examples of Experimental Physiological Investigation," and "The Philosophical Obstacles which oppose the Progress of Experimental Medicine."

As we have already remarked, the present work is only an

(a) As at the commencement of his "Introduction to the Study of Experimental Medicine," 1865, M. Bernard gives the following reference—viz., *Cours de Pathologie Expérimentale* (*Medical Times and Gazette*, 1859-60)—it is obvious that he considers ours as the only authorised edition of this course of lectures.

(b) "Leçons sur les Propriétés des Tissus Vivants," par M. Claude Bernard. Recueillies, rédigées et publiées par M. Emile Alglave. Paris, 1866. Our copies of this work and of Bernard's "Introduction à l'Etude de la Médecine Expérimentale," Paris, 1865, have been forwarded to us by Messrs. Williams and Norgate.

introduction to two volumes now in the press, entitled "*Principes de la Médecine*," and devoted to the development of experimental investigation in its applications to physiology, pathology and therapeutics; but it is well worthy of careful study on its independent merits. We cannot say more in its praise than that it will, if possible, elevate Bernard's already high reputation as a Medical writer.

Of the "Lectures on the Properties of the Living Tissues" we will only remark that, so far as they go, they form an admirable treatise on physiology. Five lectures are devoted to *irritability*, eight to *the contractile element*, and twelve to *the nervous element*; and, as a supplement, there is a lecture on "*The Physiology of the Heart, and its Relation to the Brain.*" They are written in a clear and very intelligible style, are well illustrated by diagrams, and we should be glad to see them translated into English.

THE WEEK.

TOPICS OF THE DAY.

THE health of the Princess of Wales is, we are glad to hear, rapidly improving, and great hope is entertained that the power of movement will be ultimately restored in the affected joint. It is believed that her Royal Highness will be sufficiently restored to undertake the journey to Germany early in August.

It is rumoured that the coming election of a representative in Parliament for the University of Dublin will be a matter of some Professional interest. The promotion of the Attorney-General, Mr. Chatterton, to a Vice-Chancellorship will create a vacancy in the representation, for which it is said there will be two candidates—Mr. Warren, the present Solicitor-General, and the Rev. Professor Haughton, M.D. Many members of the University object to making its representation a mere step to the Bench, and would gladly support a candidate who was not a lawyer. On this ground, as well as on those of his public and private merits and world-wide scientific reputation, it is believed that Professor Haughton would meet with considerable support. The representation of the University by Dr. Haughton would undoubtedly be a great gain to science. His general scientific attainments would qualify him as a leader on all the great scientific questions of the day, whilst his Medical and biological knowledge renders him especially fitted to express an authoritative opinion on matters relating to public health. It would be a matter of great congratulation if the University of Dublin elected him. We only hope that the fact of his being a member of the clerical profession as well as of our own will not be held to present an impassable barrier to his becoming a candidate. It is well known that a distinguished clerical member of the University of Oxford is prepared to raise this question at the next election for the City of Oxford; and if it enable Professor Haughton to sit for the University of Dublin, we should gladly see it settled in the affirmative.

The rejection, by the casting vote of the Speaker, of Mr. Fawcett's motion for opening Trinity College, Dublin, to students of all religions, is a shadow thrown before by the coming event. Whether for good or evil, the day of religious tests and qualifications in the educational institutions of the country seems rapidly on the wane. We hear that Professor Miller's friends entertain considerable hope of interesting a large number of Medical graduates in his favour at the coming election for the University of London.

The rapidity with which the Scottish Reform Bill has passed into Committee is probably only an allegro prelude to a debate marked by all the deliberation and caution for which our Northern friends are distinguished. It is evident that, unless the Scottish members are prepared to discuss it, the English are too thoroughly tired of the subject of Reform to enter very minutely into its details. There will, however, be ample opportunity for impressing on the House the injustice with which the Bill in its present state deals with the Medical graduates of St. Andrew's. The absurdity of excluding a set of graduates from the Scottish University franchise, on a plea of non-residence, whilst the privilege has just been bestowed on a similar institution in England, which requires no residence, must strike the House of Commons. Especially should it be remembered that when these gentlemen obtained their degrees the University of St. Andrews had deliberately adopted the principle of not requiring their Medical graduates to obtain their education at any one particular seat of learning, and that an opposite practice was only forced on the unwilling authorities of that University by the Scottish University Commissioners.

Amongst the innocents massacred by Mr. Disraeli on Monday was the Murder Law Amendment Act. This is probably not to be regretted, as there was little chance of its receiving the amount of attention this Session which the introduction of so radical a change in the criminal law of the country would deserve. Of course a similar Bill, based on the recommendation of the Commissioners on Capital Punishment, will be introduced next year.

The first *conversazione* given by the new President and the Fellows of the College of Physicians was pretty numerously attended, although it is a fact that a large proportion of the Members of the College were conspicuous by their absence. The principal object of attraction was the portrait of Sir Thomas Watson, by George Richmond, R.A., a work worthy both of the sitter and of the artist. The readers of the *Medical Times and Gazette* will be glad to hear that Dr. Bence Jones had sufficiently recovered from his late illness to be present.

Are foul smells injurious to health? We think that the Medical Profession would generally say "yes," if only on the ground that they nauseate, and impair the appetite. So apparently does not think Mr. Eaton, the Lecturer on Chemistry at Charing-cross Hospital, who recently gave evidence at the Thames Police-office in favour of M. de Brion's indianite works at Poplar. "Indianite" is composed of india-rubber, pitch, and resin, and is used for protecting metals from rust. The inhabitants of the neighbourhood where the manufacture is carried on complain that they are poisoned by the horrible fumes of this mixture, but Mr. Eaton assures them that they are entirely mistaken, and that the odours, which are almost identical with those of pitch, cannot be injurious to health. *Quære*: Is it fair to consult chemists on the subject of smells? Does not the apprenticeship which they undergo in the laboratory render their noses and stomachs invulnerable?

Mr. Frank Buckland's report on the salmon fisheries is reassuring. 4000 salmon caught in the Exe against 490 last year, and 9000 taken in the Ribble and Hodder against 90 in 1859, are instances of what has already been done by pisciculture. In such a country as England, with its numerous rivers and extensive seaboard, fish, instead of being an expensive luxury in the large towns, should form a large portion of the food of the people. Mr. Buckland thinks that the preservation of fish need not necessarily interfere with paper mills and other manufactures, and recommends that polluted waters should be chemically purified before being returned to the rivers. On any showing, we think that an increase in this kind of animal food would be well purchased by some increase in the price of paper.

The death of Madame Musurus, which has thrown such a gloom over the late festivities, was, we are informed, the result of long-standing disease, and presents an instance of the danger of extra physical or mental excitement in organic cardiac affection. When seized at the India-house, the deceased lady was in the act of rapidly ascending a staircase, and she had been just warned not to exert herself by a member of her family, who was aware of the danger exertion involved.

The fever in the Mauritius is said to be subsiding. A large

importation of quinine has taken place, and the price of that drug has fallen from £7 to £1 an ounce. It is calculated that 21,000 persons have been killed by this pestilence. Cholera, by the last advices from India, was disappearing from amongst the troops at Peshawur, although in the native city from 30 to 100 natives were dying a day. The report of the *Hamadryad* Hospital ship, moored at Cardiff for the last year, states that, of the Medical patients admitted, 11 per cent. were cases of scurvy.

There is a vacancy for an Assistant-Physician at St. Mary's Hospital. The candidates at present in the field, we believe, are Dr. Fenwick, of Harley-street, and Dr. Cheadle, of Hyde-park-place.

CHOLERA NOTES.

We have been informed that the number of pilgrims congregated together at the last great annual fair at Hurdwar (at the point where the Ganges leaves the hills) was close upon 3,000,000. Our readers may remember that cholera followed in the track of these people on their dispersion. It is a curious fact that, since Peshawur has been occupied by the British, no cases of cholera had appeared before 1862. On May 20 last this disease broke out among the 42nd Highlanders, and has proved fatal in no less than sixty-two cases. Other regiments in different stations have suffered, but to a small extent. The troops at Peshawur were at once broken up into small detachments and encamped; and there is every reason to hope that the progress of the disease may be stayed. The Lazaretto at Malta, writes one of our correspondents, contains a great many persons (about 300) placed in quarantine on account of the prevalence of cholera in Sicily and elsewhere. The Maltese are firm believers in the efficacy of quarantine restrictions, and they do not lose an opportunity of making their creed known to the local authorities. This is not to be wondered at, considering how terribly Malta has suffered at times from epidemic disease. A few deaths from diarrhœa have occurred among the Maltese, and a soldier has been, here and there, attacked with symptoms simulating, but not by any means identical with, those of Asiatic cholera. The military Medical officers did not appear to consider them examples of cholera, and the patients, it is believed, recovered.

CHOLERA IN MONTENEGRO.

The Austrian journals give us the most melancholy accounts of the progress of cholera in Montenegro. The whole country has been seized with panic, and the inhabitants have assumed a position of defence, which is not unlike what has been witnessed during the plague. Prince Nicholas and his family and Physician have fled to Venice or Paris, and the archimandrite has followed in his sovereign's footsteps. Meanwhile the unfortunate inhabitants have lost their harvest through a season of intense drought and heat, and are being swept away with terrible rapidity by cholera. Pestilence and famine have assailed them simultaneously. Unaffected villages are surrounded with sentries, and infected intruders are instantly shot. In the district of Herzegovina, with a population of 32,000 inhabitants, there have been no less than 1800 cases of cholera. The dead are thrown out into the highways, and become the prey of ravenous dogs; and as yet little has been done to stay the epidemic or to reassure the people. One is horror-struck to think that scenes such as these are occurring within a few thousand miles of our shores, and that nothing is being done either to abate the pestilence or to prevent its extension. Already one of the terrified inhabitants has carried the cholera into Trieste, and no doubt there will be other instances of a similar nature. The picture is a painful one, and it ought to be a warning to us to watch the progress of cholera now in Europe, and to exercise an adequately protective quarantine over all vessels arriving from infected ports.

SIR FREDERICK POLLOCK AT CHARING-CROSS HOSPITAL.

On Friday, the 19th, the ex-Lord Chief Baron took the chair at Charing-Cross Hospital for the distribution of prizes to the students of the Medical school. The vivacity and sprightliness of one so advanced in years, and who has accomplished such an amount of work, was something surprising, whilst his venerable character and the success which has attended his exertions were calculated to enforce the words of advice he gave the students. It is the custom of the school for each student to select a motto for his paper; the whimsical yet appropriate comments Sir Frederick made on these were received with great applause by a large and brilliant audience. In his concluding remarks Sir Frederick made one statement which particularly struck us, and which will, we doubt not, be heartily endorsed by our readers; speaking of the relative delights of law and Medicine, he remarked that, were he to chose a career in every way suited to his predilections, *he would practise law, but study Medicine*. The rewards which attend the former are something to be contrasted with those to which even the most successful Medical man can ever aspire. In his further remarks Sir Frederick had but one key-note—labour, and you are sure to succeed. At the conclusion a vote of thanks to the chairman was proposed by Mr. Hancock, and carried with tumultuous applause.

THE FRENCH PHARMACEUTICAL CONFERENCE.

The congress of French and foreign pharmaceutists held their sittings at Paris on the 4th, 5th, and 6th inst. at the amphitheatre of the Conservatoire des Arts et Métiers, under the presidency of M. Furnouge. Several Continental and English chemists were present. The first question discussed, and upon which a report has been prepared by M. Fournier, was the following:—"Is the law regulating French pharmacy in harmony with the customs and constitution of the country, and with the exigencies of the Profession?" The congress unanimously answered the question in the negative. Many other questions were discussed, this one in particular being of importance—"Is it not in accordance with the interests of the people that the sale and preparation of medicines should be limited to chemists possessing a proper diploma, thus securing the public from danger?" The other points discussed possess a higher interest for French chemists than for our readers, inasmuch as they apply to certain restrictions placed upon apothecaries by the French laws, and which have hardly an existence in these countries.

TROOPS FROM MAURITIUS.

We note that the steam troop-ship *Himalaya* arrived at Queenstown on Monday, the 22nd inst., from the Mauritius, with the head-quarters of the 2nd Battalion of the 13th Light Infantry. It will be remembered that this regiment suffered severely in that island during the recent epidemic of malarious fever, from which 22,000 of the civil population are said to have died. Although still in a very weakly state, the health of the officers, men, women, and children has materially improved. There were frequent recurrences of intermittent fever among all classes during the voyage; four deaths occurred among the men (one, however, was from drowning), and two deaths among the children. Many of the cases of fever were relapses in the same individuals, in whose system the malarious poison had effected a more permanent standing. Anæmia, intestinal irregularities of dysenteric tendency, and enlargements of the liver and spleen are present in a large number of cases, and must for some time leave the regiment in a very weak-handed state. It is to be hoped, however, that the genial influences of the home climate, assisted by a judicious mitigation of all avoidable fatigues, will soon re-establish the *physique* of the regiment. And from all we have heard, if

the sanitary recommendations of the Director-General of the Army Medical Department be carried out—namely, the almost total exemption of the men from military duties (which implies "every night in bed") and their being housed immediately in the Verne Fort, an airy and unobjectionable position—these objects will be attained. The rooms in this fort are casemated, it is true, but the grand object was to house the men as quickly and with as little fatigue as possible.

GASKOIN ON CHOLERA AND SYPHILIS.

Well acquainted with the language and literature of the Peninsula, Mr. Gaskoin is introducing us to hitherto unwrought mines of information—the accumulation of the Medical writers of Spain and Portugal in their palmy days of prosperity. In the last number of the *British and Foreign Medico-Chirurgical Review*, Mr. Gaskoin draws attention to the fact that cholera in India is no new disorder—that, in fact, it has existed there, in a more or less malignant form, from time immemorial. Portuguese writers were acquainted with it, spoke of it clearly and unmistakably, and showed a knowledge of all the most important points of modern treatment, soon after the discovery of India. They knew the value of astringents during the incubatory stages of the complaint, the necessity for supporting the system by giving easily digestible food, and so on. These writings date from the earlier portion of the fourteenth century. Again, in the matter of syphilis, Mr. Gaskoin shows, in the papers now appearing in these columns, that, at a period previous to that which is generally supposed to have witnessed the outbreak of syphilis, the disease was known in Spain, and was distinctly spoken of as having been introduced from the West Indies. In addition, some important facts as to the journey of Columbus from Palos to Barcelona are brought out, altogether rendering the communication one of unusual value and interest. The writer from whose works most of the facts have been taken lived at the time of Columbus' return, and speaks of having treated men for the disease before they landed. If not settling the dispute as to the origin of syphilis, these papers go very far towards it, and may lead to even more important discoveries.

FROM ABROAD.—VACCINE LYMPH DILUTED WITH GLYCERINE—INOCULATION OF TUBERCLE.

In a former volume (May 19, 1866, p. 529) we reported the great success which had attended Geh. Medicinalrath E. Müller, Director of the Berlin Vaccine Institution, in his employment of a mixture of glycerine and lymph for vaccinating. In a recent number of the *Berlin klinische Wochenschrift* he gives an account of another year's experience, which is quite confirmatory of his former statement. He employs chemically pure glycerine and distilled water in equal parts, as this secures a sufficient amount of limpidity to allow of the fluid easily passing into the capillary tubes, in which it is preserved. This diluted glycerine is thoroughly mixed with the vaccine lymph in a watch-glass or other receptacle by means of a fine pencil, the proportion of one part of lymph to ten of diluted glycerine securing a good inoculable material. After a little practice these proportions can be measured sufficiently near by the eye. If immediate vaccination is intended, the inoculating needle or lancet should be charged by means of the pencil, which it can be much more effectually than by dipping it into the mixture. If it is desired to preserve the lymph for future use, it may be introduced into capillary tubes, or it may be placed in a small phial capable of holding half or a whole dram. This bottle need not be completely filled, and requires only to be secured by a cork. The lymph may be so kept quite unaltered, and the vaccinator may go from place to place always secure of having a good supply of lymph with him. Supplied with such bottles, the military Surgeons have revaccinated hundreds of recruits as they arrived. As the lymph is only in part dissolved, and in part suspended in the glycerine mixture, this should be well rubbed up with the pencil before vaccinating or filling the bottles with it. All the vaccinations performed at the Berlin Institution with this mixed lymph have succeeded equally well with those performed by means of unmixed lymph; and the reports received concerning its effects from those persons to whom it has been forwarded are for the most part very favourable. Some have not succeeded with it, but on examination of their accounts of their want of success this has generally been found to be due to inattention and want of care on their part. Yet there are instances of failure where every precaution in vaccinating has been taken, and this has been thought to be due to the capillary tubes sent not being sufficiently charged. The larger tubes should alone be used, and the mixture well rubbed up with the pencil before charging them. As to the power of preservation of the lymph by the glycerine, this has been so great that it has retained all its efficacy, without any protection from changes of temperature, for more than a year.

M. Villemin's experiments on the inoculation of tubercle have excited considerable attention in this country; and at a late meeting of the Académie de Médecine, Professor Colin, of Alfort, Secretary to the Committee of the Academy appointed to take them into consideration, read a valuable and elaborate report upon M. Villemin's two communications, and which has been printed *in extenso* in the *Gazette Médicale* of the 20th inst. It is indeed no ordinary report, submitting, as it does, the whole question to a searching re-examination, based upon numerous additional experiments. The result is, that while the report confirms the general conclusions arrived at by M. Villemin as to the inoculability of tubercle, it shows that some of these were too hastily formed and defective in precision. For example, the exclusive inoculability of tubercular granulation, maintained by M. Villemin after Virchow, has been found by M. Colin to be inexact; for after having experimented with a mixture of the various matters found in the lungs of a patient suffering from tubercle, he afterwards successively inoculated with miliary granulations, caseous matter, the hard tuberculous matter found in the calcareous phthisis of the ox, yellow tuberculous matter in process of so-called retrogressive metamorphosis, and sections of a tumour filled with living strongyli taken from a sheep suffering under verminous phthisis. In all these cases precisely the same results ensued, the generation of tubercle following the inoculation—these various morbid products usually represented as only the results of inflammatory action or retrogressive metamorphosis, producing, in fact, precisely the same effects as those which result from inoculation of grey granulations. Matter which had become entirely calcareous alone gave no results. The reporter, therefore, regards these various products as only successive stages of the same pathological process. It is possible that under a common identity there may be shades of difference which comparative investigations will elucidate. One point remarked was that the pus found associated with the products of *ramollissement* of tubercle, seems to modify the aspect of the results of the inoculation, giving rise to the formation in the glands, the liver, and the lungs of little deposits which mingle with the true tubercles, and very closely imitate them.

The reporter enters at considerable length into an exposition of the manner in which this inoculated matter is absorbed by the lymphatics and capillaries entering the glands, and eventually the central organs, there locally exciting irritation. Even in spontaneous phthisis, tuberculous matter at first purely local—torpid, as it were, in some unimportant organ—may become disaggregated, undergo absorption, and thus be conveyed to vital organs.

PARLIAMENTARY.—THE MURDER AMENDMENT LAW BILL—THE EXPENSES OF THE CHOLERA COMMISSION AT CONSTANTINOPLE—THE DISTRICT LUNATICS' ASYLUM OFFICERS BILL—TRINITY COLLEGE, DUBLIN—MR. FAWCETT'S MOTION.

In the House of Commons, on Monday, July 22, amongst the

Bills withdrawn by the Chancellor of the Exchequer was that for amending the law in reference to the crime of murder.

The second reading of the Scottish Reform Bill was carried without discussion.

In Committee of Supply, Sir J. Jervoise moved to reduce the vote for special missions by the item of £1728 9s. 9d., the expenses of the "British Medical Commission on Cholera at Constantinople." It was very doubtful whether it was wise to appoint this Commission, and as they had made no report, the House had no knowledge from any results whether they had been to Constantinople at all.

Lord Stanley said the Commission was appointed before he came into office. As the East was the part of the world from which the cholera always proceeded to Western Europe, it was only natural to suppose that a sanitary commission to Constantinople would be useful. The Commission had not been idle, for he had received from time to time voluminous reports from it. Before the end of the session he should be prepared to lay everything on the table. At all events, the members of the Commission who had been sent out had done their work, and it would be absurd now to refuse to pay what had been promised them.

The clauses of the District Lunatic Asylums' Officers (Ireland) Bill were agreed to with some verbal amendments.

The greater part of Wednesday's sitting of the House of Commons was taken up by the question of Irish University Education, on the adjourned debate on Mr. Fawcett's motion for opening Trinity College, Dublin, to students of all religions. It was discussed at some length on June 18, when Mr. Monsell moved as an amendment that the constitution of the University of Dublin ought to be altered so as to include affiliated colleges for all religious denominations, the members of which shall be entitled to all the benefits of Trinity College. The debate was resumed by

Mr. H. Bruce, who stated that though he should have voted for the original motion standing by itself, he preferred the amendment as the most practical solution of the question, but urged the Government to take it up next Session.

Mr. O'Reilly and Mr. Pim also supported Mr. Monsell's plan; but

Mr. Graves, while asserting that Mr. Fawcett displayed great ignorance of Ireland by the proposal he had made, argued, from the experience of other mixed educational boards in Ireland, that Mr. Monsell's idea of a number of affiliated colleges regulated by one central board composed of different religious bodies would be a failure, and doubted whether either of the proposals before the House would satisfy the Roman Catholic gentry or priesthood.

Mr. M'Laren stated his objections to sectarian Universities, relying on the example of Scotland, and

Mr. C. Fortescue maintained that the settlement of the difficulty must be based on two principles—perfect equality between all classes of religionists, and a consultation of the wishes of the Irish people. There was room in Ireland both for the collegiate system and the system of a central examining Board, and he denied that a University on the model of London was unsuitable for that country, and lamented the action of the Irish Executive which had frustrated the success of the supplemental charter.

The Attorney-General for Ireland dwelt at length on the non-exclusive character of Trinity College, and, asserting that the revenue of the College had been grossly exaggerated, urged the injustice of depriving the members of the Established Church of the benefit of endowments to which they had as good a title as nine-tenths of Irish landowners.

Mr. Goschen supported the original motion in preference to the amendment, and, after some remarks from Mr. Newdegate, Mr. Maguire, Mr. Bentinck, and Mr. Whalley, Mr. Monsell withdrew his amendment.

On a division, the votes for and against the motion were equal—108 on each side; and the Speaker giving his voice with the Noes, the motion was rejected.

The Paris International Congress.—We again remind our readers that the meeting of this body, which promises to be of great interest, is fixed for August 16 and following days. We believe that Dr. Beigel, Finsbury-square, is enabled to afford every information respecting it. The anniversary assembly of the Paris Faculty, at which Professor Béhier will deliver an *éloge* on Rostan, is fixed for the 14th, and members of the Congress are to be admitted on presenting their cards.

NOTES ON MEDICAL EDUCATION.

The System of Medical Education in England and France Compared.

We have already seen that the French system of Medical education differs from our own, chiefly in the very perfect development of the principle of centralisation which it presents—a centralisation which we should lose no time in attempting to imitate, if we are in earnest, as we pretend to be, in our desire for an improved system of Medical education in this country. For centralisation means increased strength, authority, and influence; it means a concentration of power, energy, and talent; it means an economy of time, effort, and resources. This is illustrated in a striking manner by a comparison of the limited *personnel* of the Medical Faculty of Paris, with the absurdly disproportionate number of teachers to pupils which we find in our own Medical Schools.

If our readers will take the trouble to turn to one of the early numbers of the *Medical Times and Gazette* of this year,(a) they will find, in an article entitled "Facts and Figures," some remarkable statements as to the amount of professorial labour expended in teaching the Medical students of this metropolis. It is there shown that under our present system, in order to teach a yearly average number of 363 students, we employ eleven different Medical Schools, attached to eleven different Hospitals; that these eleven schools have an aggregate staff of 132 professors or lecturers, and 110 supernumeraries; that nearly 9000 lectures are delivered every year at all the schools, and that the average proportion of professors to students is one to four and a third—*a professor to every four and a third students!* But even this fact does not touch the climax of absurdity, for we learn further on that in the small schools *every two students get a professor to themselves!* Then there follow some calculations to show how far this system is found to pay as a commercial speculation. It appears that each lecturer gives, on an average, 36½ lectures as his share of the annual labour, and that he gets paid at the rate of one pound, sixteen shillings, and sixpence for each lecture; and, as this is the average, it follows that at the small schools the emolument does not reach this magnificent sum.

Nothing can show more forcibly than these few figures do the absurd and indefensible waste of energy, time, and material which is involved in the wretchedly clumsy system of Medical education in this country. Let us turn from this picture to another, refreshing by its remarkable contrast, and we shall find that, under a more centralised system, a much greater amount of educational work is done with less than one-fifth the number of teachers.

The professorial staff of the Faculty of Medicine of Paris, consists of twenty-six professors and twenty-six *agrégés*; (b) an *agrégé* being a kind of deputy-professor, who takes the place and work of a professor, when he is absent. The *agrégés* are also frequently charged with the delivery of supplementary courses. It must be remembered that the duties of the professors are not limited merely to the composition and delivery of lectures; but that they, in conjunction with the *agrégés*, conduct *all the examinations* of the Faculty; and as these examinations are numerous, and at some periods of the year of almost daily occurrence, this forms by no means an unimportant part of their function. This arrangement, by which the *teachers* are made the *examiners*, has much to recommend it. In the first place, it insures that the teaching and the examining shall be much on the same level. It tends to prevent the possibility of an occurrence, which, unhappily, is not unknown with us. We allude to the very awkward circumstance of a student finding his examiner entirely at variance, as to matters of fact and opinion, with his teacher. Here the examiners are not always *en rapport* with the progress of the schools; so that the teachers, and therefore the students, occasionally get a little in advance of the examiners. Secondly, it increases the confidence of the student in his teachers and in

(a) February 2, 1867.
(b) There are really thirty-nine *agrégés*, but only twenty-six are engaged in active work.

his examiners, and heightens his respect for both ; and thirdly, it tends to promote a diligent attendance on lectures ; for when it is known that the professor of to-day may be the examiner of to-morrow, it is generally felt that it will in all probability "pay" not only to attend, but to listen to his lectures.

The stipend which each professor receives, if not excessively liberal, is at any rate a fair one, and is very much in excess of the miserable pittance which some of our lecturers get. The salary attached to each of the Professorial Chairs in the Faculty of Medicine of Paris, is about four hundred pounds a year. That of an *agrégé en exercice* (that is, in active work), a hundred and twenty pounds a year. All the courses of lectures are perfectly free, in this as in the other Faculties of Paris. The expenses of the school are provided for, partly by a grant from the Government, and partly by the fees received from the students for their inscriptions or registrations, for their examinations, and for their diplomas and certificates.

Such, then, is the composition of the professorial staff in this great Medical school. Let us, in the next place, examine how the work is distributed among the members of this staff. Thirty-three courses of lectures, including the clinical courses, are delivered annually during the winter and summer sessions. Each of the following subjects has a special professor, who is charged to deliver a course of lectures annually on the subject which he professes :—Anatomy, Physiology, Histology, Medical Physics, Medical Natural History, Medical Chemistry, Pharmacology, Hygiene, Pathological Anatomy, General Pathology and Therapeutics (equivalent to our "Principles of Medicine"), Operative Surgery and Surgical Appliances, Materia Medica and Therapeutics, Legal Medicine, Obstetrics and Diseases of Parturient Women and Newly-born Children.

Medical Pathology (Practice of Medicine) and Surgical Pathology (Practice of Surgery) have each *two* professors ; one charged to give a course in the winter, the other in the summer session ; so that every year there are *two* courses of lectures delivered on Medicine and Surgery, and to these, the two most important subjects of Medical education, a just pre-eminence is given. But in addition to these courses, the "Principles of Medicine" (General Pathology and Therapeutics), which in our curriculum forms part of the course in "Medicine," is the subject of a distinct course, and has a separate professor. In the same manner the Professor of Surgery is lightened of a portion of his burden by the establishment of a distinct and separate Chair of "Operative Surgery and Surgical Appliances." Ample provision is also made for the teaching of clinical subjects, by the appointment of four regular Professors of Clinical Medicine and four regular Professors of Clinical Surgery, besides a Professor of Clinical Obstetrics.

Let us now examine in what important particulars this list of subjects and professors differs from the regular courses delivered by the professorial staff in our own Medical schools. In the first place, we notice the absence, in the preceding list, of the subjects of botany, comparative anatomy, and general chemistry. They are removed, we think wisely, from the course of Medical studies, and they are taught at the Faculty of Sciences at the Sorbonne. In any logical and well-arranged scheme of Medical education, the study of the elements of physics, of chemistry, and of biology, should precede the study of the strictly Professional subjects of Medical education. No man should be permitted to approach the study of Medicine—a study which is essentially concerned with the highest and most subtle deductions and generalisations from the observations of the laws and operations of nature—until he has given proof of an acquaintance with the more general principles of the natural sciences. Nothing can be more futile, illogical, and vicious ; nothing less likely to be fruitful of good results, than the ridiculous plan which is followed in the curriculum which we adopt in this country—that is, of directing the attention of the student in Medicine to a great number of different and but remotely allied subjects of study at one and the same time, and for a period far too brief to master any one of them. The student who commences the study of Medicine in London is directed in his *first* year to begin the study of the practice of Surgery by attendance on clinical lectures, and on the Surgical practice of a Hospital ; at the same time, he has to make an acquaintance, probably for the first time in his life, with the sciences of chemistry, physiology, and anatomy. Scarcely has he recovered from the bewilderment produced in his mind by the indigestible mass of facts and principles which have been launched at him by the Surgeons at his Hospital and the Professors at his College, when he is seized upon by the Professors of Botany, of Zoology, and of Materia Medica, and pressed into a joint struggle to cram into the short space of ten weeks as many facts in each subject as it would take any man a year to digest, however vigorous and active might be his power of appropriating and assimilating mental pabulum. What is the practical result of all this confusion — this mixing up of Hospital work, laboratory work, anatomical work, natural history work, etc.? The result is that at the beginning of the second year the majority of students find themselves much as they were at the beginning of the first year. They have attended, it is true, courses of lectures on chemistry, on botany, and on Materia Medica ; but of all these they retain no scrap of useful information, but only a sense of having been infinitely bored by being compelled to attend lectures which it was impossible they could intelligently follow. Therefore, we say we approve of the principle adopted in the French school of separating the general consideration of the subjects of botany, chemistry, and comparative anatomy from the regular curriculum of Medical studies. Not that the study of these subjects is neglected or dispensed with, as we shall hereafter see, but they are relegated to their proper place, while the consideration of these sciences in their *application* to Medicine receives a much greater development than with us.

Medical chemistry has a professor to itself, and two courses are given annually on this important subject—a winter course on the general application of chemistry to Medicine, and a summer course on the metallic substances used in Medicine. No corresponding courses are given in our schools. Then, again, applied botany is represented by a course of lectures on "Medical Natural History"—on the plants used in Medicine, most of which, indigenous or tropical, are placed before the class ; weekly herborising excursions are also made in the summer. But, perhaps, the most striking difference in the treatment of the same subject is to be observed in the manner in which the joint subject of Materia Medica and Therapeutics is treated in the two Medical schools whose arrangements we are comparing. What does the Professor of Materia Medica and Therapeutics in a London Medical school undertake to do? To teach in a period of about ten weeks the three following tolerably distinct subjects:—1st. The natural history of the substances used in Medicine. 2nd. Pharmaceutical chemistry and pharmaceutical processes. 3rd. Therapeutics, or the application of Medicines to the cure of disease. How is the same subject treated in the Faculty of Medicine in Paris? Three distinct Professors deliver three distinct courses ; one, as we have already seen, on "Medical Natural History," another on "Pharmacology," and a third on "Therapeutics." We have listened to lectures in each of these three courses and we were struck with astonishment at the amount of interest which they derived from this logical method of separate treatment ; and from the increased scope for the development of the subject which this arrangement afforded, remembering, as we did, how utterly dry, uninteresting, and unattractive are the courses of Materia Medica which our students have to listen to, most of them being very little more than *catalogues raisonnés* of the articles used in Medicine. Indeed, it is not an exaggeration to state that no attempt is made in *our* Medical schools to teach therapeutics in a manner at all adequate to the importance of the subject. Two deplorable evils result from this neglect ; the first is a very prevalent ignorance amongst our younger Medical men of the action and influence of medicines generally, and the second is the existence of a wide-spread contempt, consequent on this ignorance, for the study of therapeutics and an unfounded scepticism in the beneficial influence of Medicines over disease.

Pathological anatomy is another subject which is much neglected in our Medical schools, but which has a decidedly prominent place in the teaching of the Medical school of Paris. There, this subject claims the services of a separate Professor, and affords material for a six months' course of lectures, and we can bear personal testimony to the success of this course ; for, although the Professor whom we heard, was new, and his antecedent reputation as a lecturer unfavourable, yet the interest attached to the subject was so great that he had an audience which crowded an amphitheatre capable of holding some 2000 persons, and this, it must be remembered, in a school where attendance on lectures is voluntary.

Two other subjects, unrepresented in the curriculum of our schools—the one "Hygiene," the other "Medical Physics"—claim each a professor, and each a course of lectures. Hygiene

is a subject which well deserves more consideration than it gets with us. Physics, we consider, for reasons we have stated above, should form part of a preparatory course of teaching, and not be introduced into the curriculum of strictly Medical studies. Physiology is treated somewhat differently in the two schools. In Paris it is divided between two Chairs—one professor taking the subject of "Histology" for a winter course, and another professor taking physiology proper, or functional physiology, for a summer course.

Another point worthy of notice and of imitation is the length of the courses. Since the winter session begins in November and ends in March, and the summer session begins in March and ends in August, all the courses of lectures are of much the same length. There is no attempt made to cram six months' work into ten weeks—a feat which our professors often attempt to achieve. Again, when the time is insufficient to treat of the subject as a whole, some definite portion of the subject is selected and treated thoroughly. We regard this plan as far preferable to that which requires our own professors to hurry over the latter part of their courses with unseemly precipitation, in order to conclude the consideration of their subjects within the prescribed time.

We have yet to speak of the mode of appointment of the professors and *agrégés*, and of the very important subject of clinical teaching. We shall do this in our next article.

REGISTRATION OF DEATHS IN ITALY.

(*From a Correspondent.*)

There is a certain looseness in the working of the Registration Act in England, much complained of, and much to be deplored. They manage these things differently in Italy. Are we too old or too conceited to learn? The subjoined will perhaps give you a few useful hints; it is perhaps a *leetle* too complicated, but it is a specimen of the general style of public administration. We have nothing to do with the economy of time or expense displayed in the proceeding, and it appears here to meet with as little consideration. The following is a true and circumstantial account of the paternal concern of the Government to insure the public against all possibility of fraudulent sepulture:—

A child dies. 1st Step. Certificate of the Medical man who attended. This must be delivered to the Medico Fiscale, who proceeds to verify the fact and the particulars thereof, which completed, he writes his certificate. 2nd Step. The said certificate is then taken by two witnesses cognisant of the death to the Registration Bureau. They are introduced into a room occupied by several officials. Business being stated, a large printed form is produced. The following is a condensed form of the cross-examination to which each witness is subjected:—State Christian and surname, age, profession, and religion; married or single, where born and where living; if any children, give their respective Christian names and ages; state Christian name and religion of your father and mother, where born, maiden name of your mother; state Christian name, age, profession, religion of your wife. The question of age of wife, being a delicate one, is not strictly obligatory. These preliminaries being completed, a certificate is given. 3rd Step. Witnesses, in company with their certificate, are ushered into another room, containing two officials, each armed with a huge folio. Same questions; answers extracted with rather more care and minuteness, then entered into the huge folio by one clerk, then copied into a second by another clerk, the two written accounts then strictly compared, and correctness verified. After stating, as before mentioned, all particulars about past and present belongings, male and female, we pass on to the deceased—name, age, religion, etc., etc.; then name, age, profession, religion, place of birth, etc., etc., of father and mother; then of their fathers and mothers, with the maiden names of the latter; the witnesses being probably ignorant of the latter, it is not strictly insisted upon. The subject being now tolerably exhausted to the satisfaction of the examiners, a certificate for interment is granted. Of course, the signatures of the witnesses are appended to the statements in the big book; the weary cross-questioned witnesses imagine their duty terminated; but the cemetery is outside the city. The permission only refers to interment; another permission must be obtained to pass the gates (Charon and the Styx are mild affairs). The second certificate must be carried to a third bureau, ushering in Step 4. Here a milder form of interrogation prevails, and the necessary document is obtained; but this must be carried to a fourth bureau, to receive the signature of the syndic. Finally, the two certificates are consigned to the undertaker. The whole procedure occupies an entire hour; five officials are engaged thereon, who perform their duty with a degree of self-complacency and consciousness of importance highly commendable. Questions are not thrown at you in the loose slipslop fashion which obtains with English officials, but every step conducted with the greatest courtesy, gravity, and decorum. Any little natural hesitation in divulging the age of the partner of your joys and sorrows is delicately appreciated, and the mild inquiry as to what connexion the maiden names of the mothers of all the parties concerned could have with the death of a stranger, or the names, ages, and religion of the respective children of the witnesses, politely explained by the desire of the authorities that all possible errors of identity are thereby in all human probability obviated. We should cast no depreciatory reflections on the institutions of our beloved country, but does not the above prove that there is room for improvement?

ON THE FORMATION OF HIPPURIC ACID IN THE ANIMAL ORGANISM.

Since Liebig announced about a quarter of a century ago that hippuric acid was a normal ingredient of human urine, few subjects have attracted more attention amongst physiological chemists than the origin of this acid in the human and in the animal organism generally, the quantity in which it occurs in human urine, and whether or not this quantity bears a direct or inverse ratio to the quantity of uric acid that is excreted. Amongst the chief investigators of this subject may be mentioned Duchek, Hallwachs, Weismann, Haughton, and Bence Jones; and although much has been written on the subject, it is still involved in great obscurity. Thus, all that one of our most distinguished recent writers on physiological chemistry, Gorup-Besanez, can tell us regarding the excretion of this acid in the human urine is that "its amount is dependent on the nature of the food. Its excretion is increased after the administration of benzoic acid, benzoic ether, cinnamic acid, and after the free use of vegetables and fruits as food, even those fruits which contain little or no benzoic acid having this effect. A diminution of the acid, extending to its entire disappearance, takes place during an exclusive flesh diet."

Drs. Meissner and Shepard(a) have now taken up the subject, and although their investigations have reference chiefly to herbivorous animals, a brief notice of their labours is deserving of record in these pages. They divide their subject into three heads:—

1. *The Investigation of the Normal Blood of Herbivorous Animals, and of the Blood and Secretions after the Ingestion of Benzoic Acid.*—In rabbits, goats, oxen, and horses, they found a large quantity of hippuric acid in the urine, but neither hippuric acid nor benzoic acid in the normal blood, while succinic acid was always present. After the administration of benzoic acid, the blood, saliva, and sweat of rabbits, men, and dogs, contained benzoic and succinic acids, but no hippuric acid. Hence they infer that the hippuric acid of the urine is not separated in that form by the kidneys from the blood, but that it must be originally formed in the kidneys. This, however, seems to be in opposition to another of their observations—viz., that after destroying the activity of the kidneys by tying the renal vessels, the ingestion of benzoate of soda into the stomach of rabbits caused much benzoic acid and a moderate quantity of hippuric acid to be found in the blood. This obvious difficulty they try to get over by assuming that an abnormal condition is here set up, which gives rise to abnormal chemical processes, amongst which may be reckoned that of the blood taking upon itself the action of the kidneys. What nitrogenous body contributes to the formation of hippuric acid in the kidneys is not determined by the authors, but they prove that it is not the urea.

2. *Investigations regarding Quinic Acid in the Bodies of Various Animals.*—The authors confirm Lautemann's observation that quinic acid ($C_{11}H_{10}O_{10}.2HO$) is converted in the human organism into hippuric acid. The ingestion of fifteen grammes of quinate of soda or lime into the stomach of rabbits was followed by an increase of hippuric acid, carbonic acid,

(a) *Untersuchungen über das Entstehen der Hippursäure in thierischen Organismus.* Hanover; Hahn. London; Williams and Norgate.

and succinic acid in the urine. In carnivorous animals (dogs and cats) similar doses gave rise to no augmentation of hippuric acid. In the conversion of quinic acid into hippuric acid a process of deoxidation or reduction is necessary, which does not seem to exist in the bodies of carnivorous animals; while the conversion of benzoic acid, oil of bitter almonds, and cinnamic acid into hippuric acid is due to a process which both classes of animals are capable of effecting.

3. *Investigations regarding Succinic Acid in the Organism.*—It has been maintained by Kühne, and denied by Hallwachs and others, that the use of this acid increases the quantity of hippuric acid in human urine. The authors found that in man, carnivora (dogs), and herbivora (rabbits), the ingestion of succinic acid produced no augmentation of hippuric acid, but aconsiderable increase of succinic acid (up to 1·2 grammes of succinate of soda in the daily human urine) above the normal quantity (which we believe to be a mere trace), and an increase of carbonic acid. Hence the original statement of Wöhler is confirmed.

4. *Origin of Hippuric Acid in the Urine of Herbivorous Animals.*—From a very large number of experiments on rabbits which were fed with various constituents of vegetables, seeds, and fruits, they arrive at the conclusion that the substance yielding hippuric acid must be contained in some perfectly insoluble vegetable tissue. They prove that this cannot be cellulose, starch, the incrusting substance of Payen, ligmine, or pectose; and there only remains the *cuticular substance* described long ago by Mulder as investing the epidermic cells. Thus roots beneath the soil, possessing no cuticular substance, can yield no hippuric acid; and while a peeled apple yields none, the skin and seeds yield it freely. The cabbages form a singular and unaccountable exception. They are provided with apparently similar cuticular substance to other plants, but neither the outer covering nor the whole plant has any effect in producing hippuric acid. This rule does not extend to the whole family of *Crucif-ræ*, for young cress (*Lepidium sativum*) yielded hippuric acid. They assign to cuticular substance the formula $C_{14}H_{14}O_{10}$, or possibly $C_{14}H_{12}O_{10}$. It is worthy of note that the latter formula differs by only two atoms of oxygen from quinic acid, $C_{14}H_{10}O_{10},2HO$, which, as we previously mentioned, is converted by vegetable feeders into hippuric acid. The authors admit that other parts of the food modify the excretion of hippuric acid, and they confirm the statements of Henneberg, who found that when horses fed on straw and hay, and yielding a urine rich in hippuric acid, had a considerable quantity of readily digestible non-nitrogenous matter, as starch or sugar, added to their food, the hippuric acid decreased, while the quantity of urea simultaneously increased.

According to our authors, the normal daily excretion of hippuric acid in an average man living on a nourishing but not exclusively animal diet does not exceed 0·1 of a gramme; (b) and they have not satisfied themselves that the use of such vegetables as increase the acid in the herbivora has any similar effect on man. In this respect they differ from most previous observers. The fact that in the vegetable food of man the cuticular substance is for the most part absent, or artificially removed, may explain this discrepancy between the human subject and herbivorous animals.

In the above paragraphs we have endeavoured to give the pith of an elaborate essay extending over 200 pages. The numerous experiments which are related in it are well arranged, and appear to have been carefully executed; and although we cannot consider that the authors have removed all the difficulties which surround this mysterious acid, they have done much to clear the way for other observers, and have produced one of the most valuable physiologico-chemical essays that have appeared for some time. As a supplementary remark we may add that F. Oehren (*Pharm. Zeitsch. f. Russland*, Sept. 1866) has just discovered that quinic acid, which, as we know, is one source of hippuric acid, occurs in all plants of the order *Rubiaceæ*; and since the various species of Galium abound freely on pasture lands, and are eaten by the herbivora, we have here another probable source of the hippuric acid in the urine of these animals.

At the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 9th instant (Sir Edward Hilditch, Inspector-General, in the chair), the sum of £85 was distributed among the various claimants.

(b) Weismann, on the other hand, found, in experiments made upon himself, that on a mixed diet he excreted no less than 2·17 grammes, and on a purely animal diet 1·79 grammes. The truth probably lies between these extremes.

REVIEWS.

Disease, a Part of the Plan of Creation. By Benjamin E. Cotting, M.D. Boston: Clapp and Son. 1865. Pp. 39.

An Essay on the Beneficent Distribution of the Sense of Pain. Second edition. By G. A. Rowell, Assistant in the Oxford Museum. London: Williams and Norgate. 1862. Pp. 61.

The Mystery of Pain; a Book for the Sorrowful. London: Smith, Elder, and Co. 1866. Pp. 101.

These treatises are written to prove that pain and disease constitute a part of the plan of creation, and, so far from in any degree affecting our conception of the Divine wisdom and goodness, tend rather towards their fuller and grander display. That pain and disease existed on the surface of the earth long before the fall of man, is now universally admitted on geological evidence. The animals existing ages before the globe was fit for human habitation were, if possible (the fishes in particular), more completely armed for offensive operations against their prey than those of our own times, and we have abundant proof of their liability to organic and structural disease. "Extensive enlargements by ossific inflammation," says Dr. Cotting, "have been discovered, as also cavities and outgrowths produced by abscesses. Specimens of caries and necrosis are not infrequent; other marks of scrofuloid disease are also recorded. Instances of anchylosis have been noticed; and re-union of fractured bones, with exostosis at the points of junction, have been described and figured. And, more than this, evidences have been found of recovery from the most extensive lacerations, involving bony structures, by the fangs of other animals, where the individual must have lived long enough afterwards to allow the injuries to be repaired, as far as is ever possible after great loss of structure." (P. 7.) Thus it is evident that from the beginning life has been subject to the same kinds of pain, injury, and disease as at the present day. Until comparatively lately the diseases of animals (even of those in a domesticated state) have not received from pathologists anything like the amount of attention they deserve; but during the last few years more especially, the severe epidemics from which our sheep and cattle have suffered have, as it were, forced upon us the study of comparative pathology. Thus it appears that disease has from the earliest times to the present day been a part of the universal experience of animals, and must thus have formed a portion of the preordained plan of creation. The ultimate purpose of the introduction of diseases (especially in the case of animals) it is not for us to determine. The discussion of this subject would lead us into the consideration of the far more general question, "the origin of evil," on which Lord Brougham has written an excellent essay,(a) to which we would refer those of our readers who wish for further information on a metaphysical topic which has troubled the minds of men from the time of Plato to the present day.

Mr. Rowell, in his very ingenious essay, attempts to show "that the sense of pain is not an infliction, but one of the most useful and important senses we possess; that it is given to animals only in as great a degree as is necessary; and that no creature has a higher sense of pain than is required for the preservation of the class to which it belongs." The following is his line of argument in a very condensed form. Man, from being exposed to numerous injuries from which the lower animals are exempt, requires more protection than the lower animals, and this is given to him in his possessing the sense of pain in a higher degree. His body is enveloped in a membrane susceptible of the slightest injury, while the internal organs are comparatively insensible to pain. Many of these internal parts – as, for example, the ligaments and tendons—are, however, extremely sensitive when injured or diseased, and thus, like the healthy skin, afford useful indications of danger. Thus, the rest necessary for the cure of a bad sprain (as of the ankle, for example) is almost enforced by the pain occasioned by attempting to use the injured part. The exterior of the eye affords another good illustration of our author's argument. The conjunctiva being extremely sensitive, the eyelids close by reflex action when the surface of the eye is threatened with any injury, while the back of the eye, being less exposed to danger, is almost insensible to pain. He gives various instances of the importance of pain, not so much in cases of severe injury (when the shock may deaden the sense of pain) as in our daily occupations, as a warning against injury.

(a) "Dissertations on Subjects of Science connected with Natural Theology," vol. ii. p. 80.

"Every one," he observes, "must see how much our well-being depends on the possession of the sense of pain. But for this sense we should be in perpetual danger of burning or scalding the mouth or throat; we might have lime blown into our eyes, and thus lose our sight, if not warned by the pain; we should have no knowledge of our internal ailments, and therefore be unable to apply remedies, or avoid the causes producing them. In fact, there would be no end of our dangers if not possessed of this useful monitor, which is *a guard against injury* and *a check to excesses*." In his attempt to show the various degrees in which various classes of animals suffer pain, he adduces, amongst others, the following cases. While mankind, horses, dogs, etc., are painfully affected by the sting of a wasp or bee, frogs and toads will swallow these insects alive, and badgers dig out their nests, and devour both them and their larvæ. Horses with their legs broken and their bones protruding, will stand and walk on the ends of the broken bones and quietly go on grazing in the erect attitude, instead of going on their knees to feed, as it might be supposed they would more probably do. Dormice, rats, and many kinds of monkeys will eat their own tails when kept in confinement, sometimes possibly from hunger, but often for sheer amusement. In rabbits and hares there is strong reason for believing that the cries they utter when pursued or caught are due rather to an instinctive feeling of fear than to a sense of pain.

"I saw a rabbit caught," he observes, "which had but one leg, having lost one hind leg apparently some time, and the two fore legs very recently; but although the poor animal had been obliged to go along on its one leg and the bare stumps of the others, it was in good condition and healthy." If we except the hero of Chevy Chase, who,

> "When both his legs were smitten off,
> Still fought upon his stumps,"

we cannot conceive that a human being could safely bear such a mutilation; and, as we may fairly conclude that in such a case that pain was proportional to the injuries, we may infer that the rabbit's capacity for suffering pain must be very slight. Independently of our present argument, the case of this rabbit is very instructive as illustrating the reparative powers of nature. It suggests the curious question—To what *minimum* extent could we cut down a human being without affecting his life? Many striking illustrations of the comparative absence of pain in reptiles and the various classes of invertebrates are given, which we have not space to notice. We cannot conclude our remarks on this essay without remarking that it is rich in physiological and natural-history facts; and we would especially recommend our readers to study Note E, in which the two following questions are discussed:—1. May not the beneficent distribution of the sense of pain be the result of natural selection in accordance with Darwin's theory? 2. Does not the instinct which leads the young cuckoo to destroy its foster brethren tell against the theory of beneficent design?

The last of the works whose titles stand at the head of this article, "The Mystery of Pain," is a very thoughtful little essay, in which pain is considered solely from a theological point of view. The view of the anonymous author is that all pain is capable of being regarded and interpreted as a sacrifice for the good of others, and that, thus regarded and interpreted, it becomes an indispensable element in the highest possible joy, and is transformed from something hurtful and deadly into something life-giving. Although we heartily commend this essay to all thoughtful readers who take an interest in such subjects, we cannot entirely adopt all the author's views. A discussion upon its merits or demerits would, however, hardly find a suitable place in our columns.

The Elements; an Investigation of the Forces which Determine the Position and Movements of the Ocean and Atmosphere. By William Leighton Jordan. London: 1866-7. Vol. i. pp. 108. Vol. ii. pp. 60.

The most intelligible parts of Mr. Jordan's work are his prefaces. From the preface which is appended to the second volume we infer that while, on the whole, the author thinks highly of Sir Isaac Newton as a natural philosopher, he feels that a greater philosopher has risen up in our own day, called forth apparently by the recent progress of knowledge. From the preface to the first volume we are somewhat consoled to learn that "the theory of counter-attraction suggested in the following pages does not supplement the Newtonian theory of centripetal and centrifugal forces, but simply defines the nature of the latter force, maintaining that the former is attraction proceeding from solar gravitation, and the latter attraction proceeding from astral gravitation." We can only select a single paragraph as an illustration of our author's style:—

"When any component more or less evenly diffused through a body evanishes, then not only is a motion of the evanishing particles necessitated by their evanishment, but also gravitation causes a motion of the remaining particles, for the attraction proceeding from gravitation causes contraction, and without motion there can be no contraction.—Vol. i. p. 76.

If our readers wish for further information regarding Mr. Jordan's views, we recommend them to read his volumes.

FOREIGN CORRESPONDENCE.

ITALY.

Rome, July 14.

As much misapprehension exists regarding the recent appearance of cholera in Rome, I send you a report of what has actually taken place here. You will find that it differs a good deal from what has hitherto been published about it; for some persons have denied that there ever was cholera here at all, partly from fear, partly from pecuniary considerations, while others have considerably exaggerated the extent of the epidemic, partly from ignorance, and partly out of malice.

Since the commencement of May last cases of cholera have occurred here, but they were "few and far between." They increased in number during the month of June, as then seldom a day went by without a case occurring in some part of the town or another. Special wards were therefore set apart for cholera cases—viz., one in the S. Spirito Hospital, which is for the reception of males, and another in the S. Giovanni Hospital, which is for females. The ward in S. Spirito received on the average three patients daily, but on on some days none, the maximum on a single day being ten cases. Within the last few weeks there has been a diminution in these numbers, for at present there are only about five or six cases under treatment altogether. As all the male cases out of a population of 170,000 are sent to this Hospital, the numbers mentioned give a fair idea of the extent of the epidemic. The S. Giovanni Hospital for Women has fewer beds than the S. Spirito, and also received fewer cholera cases, while the other Hospitals of Rome did not receive any of these latter at all. The health of the military has even been better than that of the civil population. The entire number of cases admitted into the military Hospital from May 1 to July 10 was 1717; amongst those, 22 were put down as "suspected of cholera." The entire number of deaths in the 1717 cases was 39, amongst which there were 5 of cholera. The number of cases which occurred in private houses, and which were not transferred into the Hospitals, was about the same as that of those publicly treated. This gives an average of about 7 cases daily for the second half of June and the first week of July. Within the last week or two there has been a decided decrease in the number of cases. Although no official bulletins have been published on the progress of the epidemic, the numbers just given may be taken as substantially correct. The daily number of deaths from all causes is at present double the ordinary proportion—viz., 30 instead of 15; but such increase is not solely due to cholera, since fevers amongst the field- and harvest-labourers are always more numerous and fatal in July and August than at other seasons of the year.

Now, considering that there were about 100,000 strangers in Rome during the month from June 10 to July 10, these being attracted by the centenary of St. Peter, and that, nevertheless, there has not been any considerable spread of cholera, but, on the contrary, rather a falling off, we may indulge the hope that, this year at least, we need not expect any further inroads from this scourge—at all events not on any large scale. It is a favourable sign that the nature of the recent cases is much milder than that of those which occurred a month or two ago.

It is a curious fact that in 1865, when cholera was so severe in Ancona and Naples, there was not a single case in Rome; in 1866, likewise, there were only very few of them here; while in 1837 and in 1854 we had most severe epidemics. The only explanation of this that seems to be possible can be derived from Pettenkofer's principles. The soil of Rome has not been thoroughly moistened for the last three years, during

the whole of which the rainfall has been very slight indeed. The Tiber has never risen to any extent, and most of the time its stand has been exceptionally low; the subsoil water, therefore, is at present unusually low. In the neighbouring mountains there is the same dryness. The wells in Albano and Arriccia gave only a very scanty supply last summer, and this year even the perennial springs are completely dried up. Last summer the charming fountain of the piazza of Ancio, and the town well, had no water at all, and the women and girls used to go in procession, with their copper buckets on their heads, to the spring of Genzano, where many a weary traveller has rested and refreshed himself, sitting under its tall elms, on his return from Monte Cavo or Neviso. This year even the marble bucket of that otherwise most continuous spring is in vain looked to for a refreshing draught. As thus even the deeper strata of the subsoil appear to be quite deprived of water, this ought, according to Pettenkofer's theory, give protection against a cholera epidemic. And up to the present time Pettenkofer certainly seems to be right; for, although there have been instances of cholera at Rome, there has been no epidemic; the cases have been isolated, and only very rarely has there been found any real focus of infection. Two or three such small foci have been observed at Trastevere, and in the Piazza della Consolazione, but there were only three or four cases in each focus, nor did the disease spread at all beyond them.

As it could not be the intention of the government to strike terror into the hearts of their visitors, who were just then arriving in large numbers, no official intimation of the prevalence of cholera was given, but sanitary measures were taken for preventing its spreading. On the whole, we have in Rome always believed in the contagious nature of the disorder, and have seen with satisfaction how, in course of time, many of the greatest adversaries of this theory have come round to our belief. Of course, we do not mean to say that cholera is contagious in the way of small-pox, measles, or scarlet fever, but we entertain no doubt that the excrements, when in contact with other organic and putrescent matter, do reproduce the poison, and thus become contagious.

Of our treatment of cholera I can say but little. Signor Cadet, our Professor of Physiology, has lately recommended the use of Æthiops mineralis (sulphuret of mercury), not only as a preventive, but also as a curative, and the Doctors eagerly welcomed his suggestion; but the new remedy is already gone to that limbo where so many others have gone previously. Signor Cadet recommended a dose of ten grains and more; and where the disease had actually broken out the dose was to be repeated every half-hour. Sulphur was also fashionable for a short time. As disinfectant we generally use chloride of lime, but carbolic acid seems gradually to rise in the estimation of the Profession. It evidently was a mistake to put the cholera patients into general Hospitals, since, amongst the other inmates of these, cholera took some victims who might otherwise have been spared. In case the disease should attain larger proportions, the Villa Mattei, a large and lonely building on Monte Celio, will be used for the reception of the patients, and has, indeed, been fitted up for that special purpose several years ago; but up to the present time the authorities have not thought it necessary to use it. Fumigations are strictly practised, especially where people pass into or out of the Papal States. As a matter of course, the priestly Government give double doses of chlorine to any Liberals who may happen to cross the frontier; while, on the other hand, the royal authorities retaliate by furiously stirring the chloride of lime pots whenever they find some bishop or other ecclesiastic coming from Rome in their clutches—on the principle that it is more creditable to do good to one's enemies than to one's friends. Just let me mention, in conclusion, that an English artist, Mr. Davy, lately died here of cholera, after having suffered from diarrhœa for a considerable time previously: while, amongst the American residents, Mr. Rogers, the celebrated sculptor, who has done the bronze doors of the Capitol at Washington, lost two of his children by the disease.

A Strange Fact in Meteorology!—A correspondent writes to the *Standard* to say that in coming out of a house in Lancaster-gate, on the 16th inst., he became distinctly aware of the smell of the sea. He considers that the breeze left Brighton, passed into the upper regions, and then descended somewhat precipitously in the neighbourhood of the park.

GENERAL CORRESPONDENCE.

THE LATE SIR WM. LAWRENCE, BART.

Letter from Mr. John Churchill.

[To the Editor of the Medical Times and Gazette.]

Sir,—A question strongly affecting the integrity of the late Sir William Lawrence has attracted public attention from the publicity given to it both by the medical and general press—viz., that Sir W. Lawrence, after suppressing the sale of his celebrated work "Lectures on Man," afterwards sold the withdrawn copies to Carlile, the bookseller.

Having purchased in 1832 the whole of the copyrights of the late Mr. Callow, the publisher of the original edition, and having published the subsequent works of Mr. Lawrence, I feel called upon to contradict this assertion.

Mr. Lawrence withdrew the whole edition at once, and acted throughout with perfect good faith. The sheets remained in his possession, and were taken charge of, for him, by a late treasurer of Guy's Hospital, his friend and adviser throughout, on the authority of whose family I make this statement. In this custody they remained nearly forty years, and eventually they were destroyed.

Carlile, knowing the interest the work had excited, took advantage of the law as laid down by Lord Eldon, and brought out an unauthorised, or, as the trade denominate it, a spurious edition, just as Lord Byron and his publisher lost all control over the copyright of "Don Juan."

A visit to the British Museum places it in the power of any inquirer to examine the two editions. The original edition, from the difficulty of obtaining a copy, soon commanded a premium on the published price. I have now before me a catalogue of second-hand books, dated 1841, in which the price is marked £1 11s. 6d., while the spurious edition was easily obtainable at the cost of a few shillings.

I am, &c. John Churchill.

11, New Burlington-street, London, W., July 22.

CORRESPONDENCE BETWEEN THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND REGARDING REJECTED CANDIDATES.

Letter from Mr. Alexander Duncan.

[To the Editor of the Medical Times and Gazette.]

Sir,—The Council of this Faculty will feel much obliged by your publishing the accompanying correspondence in your next number. I am, &c.

Alexander Duncan, Secretary.

Faculty of Physicians and Surgeons, Glasgow, July 19.

No. 1.

"Faculty of Physicians and Surgeons, Glasgow,
"June 27, 1867.

"Sir,—The attention of the Council of this Faculty has been directed to an editorial paragraph in the *British Medical Journal* for May 25, page 612, in which it is stated that 'candidates who have been rejected four, five, or even six times successively' at your College have re-orted to this Faculty, whence they have been known 'many times to return at once under such circumstances with their diplomas, fully equipped for practice, etc.' In the number of the same journal for June 8, page 684, the editor states that the officers of the College of Surgeons 'unquestionably entertain the belief' of the accuracy of the above allegation, and it is evident that his information was derived from some official of your College. I have therefore been directed by the Council to request you to furnish me in confidence with the names of the candidates who you believe have been admitted Licentiates of this Faculty after having been rejected at your College, with the dates of their various rejections.

"I am, Sir, your obedient servant,

(Signed) "Alexander Duncan, Secretary.

"Edward Trimmer, Esq., Secretary of the Royal College of Surgeons of England."

No. 2.

"Royal College of Surgeons of England, London, W.C.,
"July 4, 1867.

"Sir,—I have to acknowledge the receipt of your letter of

the 27th ult., quoting certain paragraphs from the *British Medical Journal* of May 25 last and 8th ult., to which the attention of the Council of the Faculty of Physicians and Surgeons of Glasgow has been directed in reference to candidates rejected at this College subsequently obtaining the licence of the Faculty, stating that it is evident that the information on which the paragraphs were based was derived from some official at this College, and requesting, by direction of the Council of the Faculty, that you may be furnished in confidence with the names of candidates whom I believe to have been admitted Licentiates of the Faculty, after having been rejected at this College, with the dates of their various rejections.

"Having submitted your letter to the President, I am directed to acquaint you that this College is not in any way responsible for the statements contained in the paragraphs quoted by you, and that as it has been determined by the General Medical Council and the Council of this College that the numbers only, and not the names, of rejected candidates should be announced, he must decline complying with your request, as he feels that he could not do so, even in confidence, without a violation of what, in his opinion, is a most wholesome regulation.

"I am, Sir, your obedient servant,
(Signed) "Edward Trimmer, Secretary.
"Alexander Duncan, Esq., Secretary Faculty of Physicians and Surgeons of Glasgow."

No. 3.

"Faculty of Physicians and Surgeons, Glasgow,
"July 10, 1867.

"Sir,—Your letter of the 4th inst. has been submitted to the Council of this Faculty. In reply, I am instructed to direct the attention of your College to the fact that by the editorial note at page 684 of the *British Medical Journal* of June 8, it is placed beyond doubt that the editor of that journal, in the imputation made against the Faculty, proceeded on information derived from 'the officers of the London College;' and in that note he expressly requests me to place myself in communication with you relative to the matter. Under these circumstances, the Council consider that they are quite entitled to be furnished officially, in confidence, with the date on which the imputation was founded, or, if such cannot be given, with a retractation of it.

"This Council cannot admit that a public body is not responsible for information of the nature complained of, when furnished by its officials to the editor of a public journal. The regulation by which the numbers only, and not the names of rejected candidates are announced, in regard to the end it legitimately subserves, is 'a most wholesome' one; but it will become quite the opposite if it be interposed by one of the licensing bodies as a barrier to the production of the data on which their officers have made an imputation against another corporation. Without the names and dates, it is evident that no reference for verification can be made to our Register.

"What the Council of the Faculty seek, is to give you an opportunity of substantiating the statement, or of furnishing them with the means of demonstrating its inaccuracy.

"I am, Sir, your obedient servant,
(Signed) "Alexander Duncan, Secretary.
"Edward Trimmer, Esq., Secretary of the Royal College of Surgeons of England."

No. 4.

"Royal College of Surgeons of England, London, W.C.,
"July 16, 1867.

"Sir,—I have laid before the President your letter of the 10th inst. further in reference to the subject of your letter of the 27th ult., and I am directed to acquaint you that he cannot admit the conclusions arrived at by the Council of your Faculty, and that he must repeat that this College is not in any way responsible for the statements contained in the *British Medical Journal*.

"This College, therefore, cannot have any retractation to make in respect of statements for which it is not responsible.

"I am to add that for these and the other reasons mentioned in my letter of the 4th inst., the President must still decline to furnish you with the information you request, and to express his opinion that, as the matter under discussion lies between the Faculty and the editor of the journal publishing the statement complained of, it cannot be attended with any advantage that the correspondence on the subject should be continued between the Faculty and this College.

"I am, Sir, your obedient servant,
(Signed) "Edward Trimmer, Secretary.
"Alexander Duncan, Esq."

No. 5.

"Faculty of Physicians and Surgeons, Glasgow,
"July 19, 1867.

"Sir,—I have to acknowledge receipt of your letter of the 16th inst.

"However desirous your College may be to avoid further correspondence on the subject to which it refers, I am instructed to state that the Council of this Faculty were quite aware, when, at the request of the editor of the journal in which the attack on the Faculty appeared, I put myself in communication with you, that it would be impossible for you to make good the statement. It may have been that in a rare instance an individual candidate rejected by your College may subsequently have been licensed by this Faculty, as assuredly candidates rejected here have shortly afterwards been passed by you; but the Council have no hesitation in denying the truth of the statement as furnished to the *British Medical Journal* by the officers of your College. I am to add that it is intended to publish this correspondence, and thus to give the Profession an opportunity of forming its own opinion as to the validity of an imputation which the Faculty could not allow to pass unchallenged, and which its authors have been unable to substantiate.

"I am, Sir, your obedient servant,
(Signed) "Alexander Duncan, Secretary.
"Edward Trimmer, Esq."

*** The poets feign that Rumour hath as rapid a growth as Jonah's gourd. Equally rapid is its collapse. The "art of sinking" could no further go than the drop from the assertion of the fact that candidates "many times rejected" return with diplomas from Glasgow, to the much humbler statement that the officials of the College of Surgeons unquestionably entertain the belief. Whatever the value of the original assertion, we can but wish that the facts had been inquired into, and substantiated or refuted.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 11, 1867.

C. H. Moore, F.R.C.S., Vice-President, in the Chair.

A paper, by Mr. Erasmus Wilson, was read on

AN ORGANIC CHANGE OF STRUCTURE OF THE HAIR PRODUCED BY SYPHILIS.

The diseases of the hair at present known to us are chiefly such as result from an excess or deficiency of nutrition. Only one instance has been heretofore distinguished as being due to alteration of structure—namely, tinea or phytosis; but to this the author proposes to add another, in which the cause of disturbance is syphilis, or rather the syphilitic cachexia. In a case of constitutional syphilis, accompanied with trichorrhœa of the hair of the head and alopecia, the hairs of the beard presented some remarkable phenomena. The shaft was blackened and nodulated from point to point, and at these spots broke through with the most moderate force. Under the microscope the diseased parts were found to be some constricted and some enlarged into a kind of fusiform bulb; they consisted of a dark cylinder enclosed in a transparent cortical envelope, the dark cylinder being composed of nucleated cells, pigmentary matter, air cavities, and crystalline fragments, and being continuous above and below with the medulla, of which it seemed to be an enlarged expansion; while the transparent envelope was a thin layer, which represented the fibrous portion and the cuticle of the hair. The dark cylinder was, in fact, an arrest of development of the hair at its cellular stage, and constituted the chief bulk of the diseased portion of the shaft, the fibrous portion

being reduced to a mere shell. The soft cellular structure now described explains the brittleness of the hair, its tendency to break easily and to split in a longitudinal direction, many of the diseased hairs being fissured to a considerable extent. As in other syphilitic affections of the cutaneous surface, the accumulation of pigment was remarkable, while the whole of the pathological change may be referred to exhaustion of power and function consequent upon the syphilitic cachexia.

A paper, by Messrs. James R. Lane and Geo. G. Gascoyen, was read, entitled a

RECORD OF CASES TREATED IN THE LOCK HOSPITAL BY SYPHILISATION.

In the autumn of 1865, the treatment of constitutional syphilis by repeated inoculation or syphilisation was commenced by Dr. Boëck, of Christiania, on certain patients selected by himself at the Lock Hospital, for which purpose some beds were placed at his disposal by the governors of that institution at the request of the authors of this paper, by whom, also, other cases have since been undertaken. A *résumé* of Dr. Boëck's opinion is given as to the manner in which he considers this treatment influences the syphilitic disease, the method in which he performs it, and some of the more striking phenomena observed during its progress. The details of twenty-seven cases are reported in which syphilisation was more or less fully carried out; twenty-two of these had not been previously treated, whilst the remaining five had been submitted to a mercurial course. All the patients were adults suffering from unmistakable constitutional syphilis, and in some the primary sore was still unhealed. According to Dr. Boëck's experience, the administration of mercury interferes with the regular progress of syphilitic inoculation, and therefore with the efficacy of syphilisation as a remedial agent; the prevalent use of this drug will account for the limited number of cases chosen by him as suitable for his method of treatment. Of the group of cases in which mercury had not been employed, the treatment by inoculation was persevered with in sixteen patients until the syphilitic symptoms had disappeared, and an approximate immunity to inoculation was obtained. The average time in which this was accomplished was four months; the longest case extended over eight months, the shortest occupied six weeks. The average stay of each patient in Hospital, after the inoculations were commenced, was five months and eighteen days. Eight of these patients entered the asylum, and have remained in good health up to a recent period. Six have not been seen since their discharge. The other two have again applied at the Hospital with slight relapses. The other six cases belonging to this same group completely recovered from their constitutional symptoms; but four left the Hospital before immunity to inoculation was attained, and the treatment was discontinued in the other two on account of sloughing. Both these latter patients were originally admitted with sloughing sores on and about the vulva, which having healed were followed by secondary disease; in both, the sloughing recommenced in the cicatrix and not in the artificial ulcers. One died, and although the phagedænic ulceration was in close proximity with the inoculations, they were never involved. In the other case the inoculated sores were affected to a very limited extent; she recovered, and has continued in good health up to the present time. Of the five cases which had undergone a mercurial treatment, in three only was the syphilisation completed, averaging a period of four months and twenty-five days for each, with a residence in Hospital of five months and six days. Two have since had relapses; the third has not been seen. The other two patients of this group died; one from disease of the liver, the other from sloughing of the dura mater and brain after the separation of a piece of bone. The former was a very remarkable case, for although inoculated with matter from every available source, the result was almost invariably negative. The latter had severe tertiary disease, and in her also the inoculations did not succeed until iodide of potassium was administered and her general health improved, after which they took freely. In none of these fatal cases do the authors think that the syphilisation could be charged with the unfortunate result, as in one case the inoculations altogether failed, and about the time that the other two were attacked several sloughing sores had been admitted into the wards. The method of practising the inoculations was that recommended by Dr. Boëck. The appearance and progress of the ulcers are described. Their average duration was about three weeks, and the cicatrices resulting from them resembled those left by vaccination. The positive results did not average more than two-thirds of the punctures made. The smallest number of pustules obtained in any one case was sixty-six, the largest 254, and the susceptibility of the patient was by no means exhausted when the inoculations were discontinued. The average number of pustules required to complete the syphilisation was 150 to 160. No prejudicial effect was produced upon the health of the patients by the inoculations; on the contrary, the majority of them gained flesh and strength during the treatment. The questions to be decided are—Whether syphilisation exercises any appreciable influence on the evolution and progress of the disease? or whether the favourable result may not be attributed to lapse of time and the natural tendency to recovery in persons otherwise healthy? Whether, if it be admitted to exercise a beneficial effect, its influence is of a specific character, as claimed for it by Dr. Böeck; or should it be ascribed, as it has been by others, solely to the depuratory and excretory action of the ulcers? The authors are agreed that any beneficial effects which may attend the treatment by syphilisation do not depend in any appreciable degree upon its depurative action. But they are not in accord upon the other questions. Mr. James Lane is of opinion that the inoculations do exert an influence upon the disease, and this influence he believes to be of a specific character; with regard to their mode of action, he is disposed to adopt the theory of Professor Boeck. Mr. Gascoyen, on the contrary, does not consider that syphilisation exercises any influence whatever upon the disease; he attributes the recovery of the patients entirely to the improved hygienic conditions in which they are placed, and the tendency which syphilitic persons, otherwise free from disease, have to get well with the lapse of time. With regard to the practical view of the question, the authors entirely concur; they do not consider that syphilisation is a treatment which should be recommended for adoption. Even admitting that it has the advantages claimed for it by its advocates, they are of opinion that these are quite insufficient to compensate for the loss of time, personal discomfort, and indelible traces which it entails upon the patient. Although the practical value of syphilisation can be doubted, the importance of the pathological facts derived from the observation of the process cannot be overrated. The matter employed for inoculation was taken sometimes from a hard and sometimes from a soft sore; but that from an indurated chancre was preferred, as Dr. Boëck has found it to be more efficacious and rapid in its general action, and less irritating locally. There was a great difference in the inoculability of these matters. That from a soft sore generally produced pustules, but by no means invariably. Our experience would tend to show that there are certain conditions which cause the inoculations almost constantly to fail; some of these have reference to the persons inoculated, while others depend upon the condition of the purulent fluid. The consideration of the cases detailed in the paper shows that the inoculability of the soft sore has been much exaggerated, and its capacity of reproduction greatly overstated. In only two cases could a series of inoculations be made to reach twenty generations—a large number, truly, but nearly equalled by some of the series of inoculations originating from the matter of a hard sore; and many instances can be referred to where the matter of a soft sore, specially selected, failed to take. When the secretion of an indurated chancre was used, it seldom succeeded in producing pustules unless the sore had been previously stimulated by some irritant application, so that its ordinary serous secretion had become purulent. The matter was then readily inoculable, passed through a long series of generations, and was transferable from one person to another without difficulty. The authors have a strong conviction that the difference in the inoculability of the two forms of sores depends entirely upon the different character of the secretion ordinarily afforded by them, since, when an indurated chancre was made to secrete pus resembling that of a soft sore, this matter was inoculable. Five typically indurated sores, carefully chosen for the purpose, and made to suppurate by the application of savine powder or ointment, furnished the matter of this description, which was employed during the syphilising process. In two cases these chancres were successfully inoculated upon the bearers; one of them, a patient under the care of Mr. Walter Coulson, having a well-marked roseola at the time, and the other had since had secondary disease. Many interesting pathological facts observed during the syphilisation are also related; amongst others, two cases are mentioned in which, after matter from every available source had failed to take for some time, the House-

Surgeon inoculated them with the secretion of a commencing phagedænic sore, and, in both, phagedænic ulceration resulted and spread to a considerable extent. The observation of these experiments has convinced the authors that the repeated inoculation of syphilitic matter does destroy, for a time at any rate, the receptivity or susceptibility of a person to its action, and establish a condition of immunity more or less complete. In fourteen of the cases reported, at the close of the treatment, matter from every procurable source was inoculated, and nearly always with a negative result; or, if a pustule were produced, it was small and abortive, and could not be reinoculated. The poison had evidently lost its power over these persons; for, although it was in full activity upon others, and passing through long series of generations, in these it produced no other result than slight local irritation, such as the simple pus of an ordinary abcess would excite, and it had no capacity whatever of reproduction. This condition may, therefore, fairly be considered one of *immunity* to the syphilitic virus. How long it lasts we are not able to state, not having tested it, but probably only for a short period. The same immunity was produced whether the matter employed during the syphilisation was taken from hard or soft sores; and it was found that inoculation with matter from a hard sore destroyed susceptibility to the action of the soft, and *vice versâ*. The same result followed also when the patient had been treated partly with one and partly with the other kind of matter.

Mr. Henry Lee said that the thanks of the meeting were universally due to the authors of the paper, who had accomplished a labour of no small magnitude. The facts reported had upon their face the impress of truth, and they should be received as well-observed facts. As, however, the authors of the paper had in some instances differed with regard to the interpretation of those facts, the same liberty would readily be accorded to other members of the Society. One of the subjects of the greatest interest, and which lay at the root of the whole subject, was the inoculability of the hard chancre upon a syphilitic patient. There were fashions in Medical beliefs, as in other things. Not long ago the inoculability of a sore upon the patient himself was taken as the true test of its syphilitic character, and of the necessity of giving mercury for its cure. Within a very few years he (Mr. Lee) had had the honour of reading before that Society a paper in which it was shown that indurated sores were not, as a rule, inoculable upon the patient himself. This had been stated before, but the first cases recorded were read in that Society. This at the time appeared a Medical heresy of too great a magnitude to be received, and the Council of the Society of that day declined to allow such a doctrine to appear in the pages of their *Transactions*. In the meantime, however, the doctrine spread upon the Continent, and was there generally received. Series of experiments were undertaken; in one of those series it was found that the hard chancre was inoculable in about two cases in a hundred, and in another set the proportion was stated at 6 per cent. These exceptional cases were accounted for by supposing that the secretion from a soft chancre had in some way become mixed with the secretion from the indurated sore, and that the latter was, as Hunter had long ago stated with regard to the products of secondary syphilis, not inoculable upon the same body. This for a time appeared to be the generally received idea; but now the pendulum of Medical opinion appeared to be inclined to vibrate once more, and in the paper before the Society there were five cases mentioned in which the secretion from an indurated sore was supposed without complication to have given rise to a series of pustular inoculations. But where fundamental doctrines, as in the present instance, were at stake, the evidence upon which the conclusions were based should be very carefully examined. Now, in two out of the five cases the secretion inoculated was taken from a patient of Mr. Coulson. The history of that case was remarkable. He had an indurated sore which was made to suppurate with the savine ointment. He (Mr. Lee) then took some of this matter, and inoculated another patient without result. Dr. Boeck then took some matter, and produced at once six pustules. Mr. Coulson then inoculated the man from the same source for three weeks, and produced no effect; at the expiration of the three weeks the inoculations succeeded in Mr. Coulson's hands, but it must not be overlooked that during those three weeks this patient had been constantly inoculated with the secretion from a soft sore derived from another patient, and that both series of punctures were left exposed and uncovered. Some exception might be taken to the way in which the inoculations in the process of so-called syphilisation were performed. Professor Boeck continually wiped his lancet on the same piece of lint, and the inoculations were, as a rule, left exposed as in Mr. Coulson's case. Now, the patients in the Lock Hospital washed in the same basins, and used the same towels, and it was not to be wondered at if occasionally contagious matter were communicated by those means. An experiment, to be satisfactory, should be made so that no foreign matter could come in contact with the punctures after they are performed. Another source of fallacy lay in the fact that occasionally ordinary pus, when inoculated, would produce a pustule that could not by the eye be distinguished from a specific pustule. He (Mr. Lee) had now in St. George's Hospital a patient whom he had inoculated with the pus taken from a case of excision of the knee-joint in a child. At the end of fourteen days a pustule, which had been accurately drawn by Dr. Westmacott, was still apparent, surrounded by a red areola. This was an inoculation of common pus upon a syphilitic patient; and no one, he (Mr. Lee) believed, could by the eye alone have told the difference between this and an inoculation from an ordinary suppurating syphilitic sore. The real difference was this—that the first could not be reinoculated, and the second could. If, then, such a pustule could be occasionally produced on a syphilitic patient from common matter, it must be obvious that as much care must be taken with regard to the cleanliness of the lancet in any attempts to reinoculate that matter, as in inoculations first in order. It might happen that ordinary matter would produce a common pustule, and that in the second series of inoculations some specific matter might be introduced from another source; and if a series of inoculations followed, these might erroneously be considered as descendants of the first inoculation. Considering these different sources of fallacy, the occasional successful auto-inoculation of a hard sore, as in the experiments referred to on the Continent, or as in those at present mentioned, could not be taken as a proof that the indurated chancre was, as a rule, auto-inoculable. Such an occurrence taking place only in a certain given proportion of cases, rather pointed to the conclusion that the indurated chancres which were auto-inoculable differed in some essential way from those which were not, whether we could appreciate that difference or not. The next point of the greatest interest appeared to him (Mr. Lee) to be the immunity said to be produced by repeated inoculations. Now, this immunity, as had been pointed out by Professor Faye, was an immunity of the extreme outer surface of the skin only. It did not imply immunity for any part of the skin except that immediately in contact with the cuticle, nor did it imply immunity for the mucous membranes, nor for any of the other structures of the body. In two of Mr. Lane's cases, in which immunity was supposed to have been produced, he (Mr. Lee) inoculated some matter a little below the surface with a positive result, and he believed that a series of inoculations might in the same way have been continued in any of the deeper structures. Again, immunity to one kind of secretion did not imply immunity to a different kind. The authors had themselves cited two cases in which patients on whom an immunity had been produced as far as ordinary suppurating sores were concerned, were inoculated with positive results with the secretion from a phagedænic sore; and, for anything that had been proved to the contrary, it was quite possible that a person who had not had constitutional syphilis might be inoculated with the secretion from a soft sore until complete surface immunity was produced, and yet be as subject as any other person to receive the infecting or constitutional form of syphilis. With regard to the relapses after repeated inoculation, it was difficult to obtain definite information. Dr. Boeck had given us the number that applied to him again after treatment by syphilisation, but we had some other statistics by Dr. Owry (who worked with Dr. Boeck), and his statistics were not by any means so favourable. Among those who had been syphilised here, he (Mr. Lee) had seen one, a patient of Mr. Coulson, some months after immunity had been produced. This patient had then multiple enlargement of the glands in the groin and a slight eruption on the skin. He was requested to allow another inoculation to be made, in order to test the persistence of the immunity, but he appeared to consider that he had been inoculated enough, and the experiment could not be tried. Mr. Lee concluded that the inoculability of the uncomplicated indurated chancre, as a rule, so as to produce a series of pustules, had not been proved, and that it was not shown that the treatment by so-called syphilisation exercised any specific effect upon constitutional disease, inasmuch as there was no evidence whatever that any absorption of

syphilitic matter ever took place from the suppurating sores thus artificially produced.

Dr. C. Drysdale remarked that he could not help thinking that the criticisms of Mr. Henry Lee concerning the towels and lancets used at the Lock Hospital were of the nature of hypercriticisms. In common with the Society, he begged to express his warmest appreciation of the labours of Messrs. Lane and Gascoyen in carrying out the system advocated by the greatest of living writers on syphilis, Professor Boeck. The present time was a most fitting one for discussing *de novo* the treatment of syphilis, since the Société de Chirurgie at Paris had just at this moment a discussion on the question of the advisability of giving mercury to persons affected with that disease, and MM. Dolbeau and Deprez had completely abandoned this destructive practice. He thought, too, that after the report on treatment made by the Venereal Diseases Committee few would be found able to defend the administration of mercury in the stage of ulceration or the so-called primary period—(cries of "No, no,")—since that body had agreed that any such treatment was entirely futile as far as the prevention of constitutional infection was concerned, and that all sores, whether hard or soft, healed without the use of this so-called specific. All persons, he believed, who had read over the evidence given by Boeck, Tricke, Desruelles, Guthrie, John Thompson, etc., must agree with him that the question of mercury being useful in syphilis was no longer to be entertained, and that so many held the contrary opinion was only to be explained by their having only tried one side. Of the 16 complete cases treated by syphilisation (which he thought was now the only treatment comparable with that of tonics—*i.e.*, pure air, good food, etc.—and topical applications) 15 had recovered completely, according to the authors of the paper. So far the practice was excellent, and he had nothing to say against it, since it must be remembered that Professor Boeck rested his belief in its efficacy over the simple mode of treatment on the fact said to be found by him that syphilisation prevented relapses. The great difficulty which he (Dr. C. Drysdale) felt in judging of the results before the Society was that they did not greatly differ from those which he and those who had abandoned the destructive remedy, mercury, and who treated the disease solely by tonics, analeptics, and topical applications, such as nitric acid and other caustics, were accustomed to observe. He was sure, then, that Professor Boeck would not feel annoyed with him for still waiting to hear more about these cases. Tertiary ulcers and nodes might still appear, as they did for twenty years afterwards under all other treatments; and he was the more inclined to make this remark because he had in his hand a letter from Dr. Owry from Christiania, a gentleman who had been Dr. Boeck's assistant for many years, and who after all was inclined rather to believe that patients recovered under syphilisation, not *propter*, but only *post*, this treatment, and who was a complete convert to the tonical and topical treatment of Mr. Syme, Dr. H. Bennett, and other great authorities. At the same time, so great was his faith in the illustrious Boeck that he could not help thinking that in difficult cases he would like this method tried, since syphilis was sometimes so frightful a disease; and he had only to state that Professor Boeck, before leaving London, had said that, if his visit to this country had no further results than to prove the non-necessity and injurious effects of mercury in treating syphilis, he should be quite content.

Mr. Walter Coulson remarked that it would appear from the report that auto-inoculation from a hard chancre was always possible, and was generally easy; but this, as far as his experience went, was far from being correct. At the Lock Hospital he had repeatedly induced suppuration from hard chancres by the application of savine ointment, and had inoculated patients in two or three places, but had never succeeded in obtaining a positive result from first inoculations. In reference to the patient D., to whom Mr. Lee had alluded, Mr. Coulson procured a positive result at the end of three weeks by following Professor Boeck's plan of making three inoculations daily, and in this case he did not think that the punctures could have been contaminated by the inoculations from the soft chancres, inasmuch as those inoculations were not made on the same arm. To avoid, however, any source of error, he employed in three subsequent cases a cataract needle that had not been used on other patients. In the second of these a positive result was obtained at the end of four days. The two other cases, however, were daily inoculated in like manner—one for over five, and the other for over six weeks—and it was found impossible to obtain a positive result. Mr. Coulson was consequently compelled to disagree with that part of the report which appeared to imply that it was always possible to auto-inoculate from a hard chancre; on the contrary, he was of opinion that it would generally be found to be extremely difficult, and often impossible. He thought the report proved one thing, which he before doubted, and that was that a patient could undoubtedly be inoculated with matter from a hard sore when he was suffering from constitutional syphilis. He was inclined to take Mr. James Lane's view, rather than Mr. Gascoyen's, in respect to the effect of syphilisation. D., the only patient he ever syphilised, or whom he was ever likely to syphilise, certainly got rid of his secondary symptoms more rapidly than he would have done had he been submitted to no treatment at all. Mr. Coulson had treated some twenty-four patients with bread pills and camphor mixture; and one of these was under observation for two years. Certainly none of them passed through their symptoms so rapidly or so well as D. had done. This patient improved in general health during the treatment; and, though he had slight psoriasis after immunity had been apparently obtained, it disappeared very quickly without treatment.

Dr. Marston said he had listened to the report with very great interest. Medical officers of the public services enjoyed manifestly peculiar advantages for studying these diseases. He had himself enjoyed rather a wide field of observation, and it was because he had entered into it with keen interest and an unbiassed mind that he ventured to address them. He related the results of that experience, dwelling upon the marked contrasts which existed between the local contagious venereal ulcer and that constitutional disease denominated syphilis. He noticed the marked differences in the two, particularly as regards the interval which elapsed between the exposure to contagion and the appearance of disease—from one to three or four days in the one, and from ten days to five weeks in the other. There could be no doubt, he thought, that two kinds of disease existed—the one local, acute, inflammatory, not overstepping the nearest lymphatic gland; the other, a constitutional blood disease, as specific in its cause, course, symptoms, and pathology as small-pox, cattle plague, or the contagious exanthemata, and, like them, one attack conferring a relative, although not an absolute, immunity against another. It seemed to him to follow, as a logical inference, that these two diseases were the products of different causes—that they were of separate and distinct species, and no mere varieties one of another. In his experience, like begat like with the same regularity that we see in the case of vegetables and animals. The pathological interest and bearing of the report just read were very evident. He accepted the statements as a frank relation of the facts. He had himself obtained, on rare occasions, a positive result by inoculating pus from the indurated chancre, but he had not yet failed with that of the soft. The Committee had, however, succeeded in producing a lineal series of ulcers from the pus obtained by irritating an indurated sore. If such artificial ulcers were not only similar to, but identical with, the ordinary soft venereal sore, then they had very tangible and strong evidence that the local venereal is the modified but veritable descendant of the true syphilitic disease. This he ventured to doubt. You take an indurated sore, irritate it, set up a new action, and get a new fluid product endowed with more active properties; you inoculate the bearer of the indurated sore with that fluid pus, or you inoculate the skin of another syphilitic, and you get, if anything, a soft ulcer as the result. He contended that the constitution of every syphilitic paid its tribute to the virus once at its beginning, and did not do so again—the sign of that tribute was induration. You might get a pustule or an ulcer, but the most specific and distinctive mark of syphilis—viz., induration—was absent. He had been struck with this, that no induration was present in the artificial ulcers, and they were unaccompanied by indurated glands. But, if you transferred the pus from one of these soft artificial ulcers to the skin of a non-syphilitic person, then you would, he thought, undoubtedly get the usual reaction; the tribute would be exacted, and induration would appear. Of course, this would be an unjustifiable thing to do; but until it had been shown that these artificial soft ulcers in the syphilitic propagated their like, and not the other, in a non-syphilitic soil, you could clearly not urge a similarity in appearance as a conclusive test of identity in character or cause. It was, moreover, possible that a morbid action was capable of being reproduced by inoculating the fluid products of such action. In the report in question phagedæna had been artificially induced, as they had heard. Again, it was a very

important point to be determined whether the skin and mucous membranes of the syphilitic were not rendered sensitive and susceptible to the action of irritants by the occurrence of manifestations of the syphilitic disease in them. He had heard of some experiments instituted on the Continent which indicated that such was the case. The inoculation of pus from ordinary sources succeeded, through several generations, in producing pustules or ulcers in a syphilitic skin, whilst the same pus failed on healthy persons. As to statistics of cure, he regarded them as delusive in the extreme. He was sceptical altogether as to our power to cure syphilis, although he had no doubt about our power to control, modify, and remove its manifestations. A man might be free from disease apparently, and yet beget unhealthy offspring, and the disorder might long remain dormant, break out at different times with very different degrees of severity, and so on. As to syphilisation as a mode of treatment, he was not surprised at the conclusion of the Committee. He had recently referred to a list of 67 cases in the Royal Artillery, which had been under continuous observation for periods varying from nine months to seven years, and he found that it illustrated two things very strongly —1st, that a non-appearance of syphilitic manifestations was a very different thing from the eradication of the virus; and, 2ndly, that the cases in the Royal Artillery contrasted very favourably with those contained in the Committee's report. The average duration of Hospital treatment did not much exceed four months, after adding together the several admissions of each case. Syphilis varies in degree and intensity, of course, just like all other blood diseases. Some cases were very slight indeed—for instance, among the 67 cases two had only been in Hospital and incapacitated from duty for twenty or thirty days —while others were very severe. The lapse of time, with a little care and treatment, were equal to procure the recovery of many, no doubt; but his experience was that mercury, on the whole, was the best and the only reliable agent we possessed, although he did not use it in all cases, almost never in the primary stage of the disease, and generally externally through the skin, in combination with tonics and a strict attention to hygiene. He felt convinced that the results would be found superior to those which had been obtained by syphilisation. Dr. Marston spoke of hereditary syphilis as showing the very marked benefit of mercury, if employed early, before the stage of atrophy and degeneration had set in, and added that syphilisation was very unsuccessful in the same class of cases.

Mr. Barwell noticed the fact that after the arms had become insusceptible to the poison, other parts of the body, as the trunk and lower limbs, were not so. This would go far to prove that the sores did not produce any constitutional effect. One might go over the whole exterior of the body, yet the mucous membranes, bones, etc., would be left. As to the hard and soft sores, he considered them to be rather states of the same than different kinds of sores. In all cases he thought the comfort of the patient ought to be consulted.

Dr. Colomiati Meredyth said he had been trying to inoculate some true sores; one he had introduced thirty days without result. Lindmann had been inoculated 2000 times, yet he remained susceptible. For syphilisation to be truly successful, syphilis should be like small-pox.

Mr. James Lane was glad to find that the practical conclusions at which his colleague and he had arrived respecting syphilisation seemed to meet with the general concurrence of the Society, and that, therefore, he need say nothing further on that part of the question. With reference to the pathological points involved, some of the speakers were disposed to doubt the reality of the inoculations said to have been made direct from indurated sores. Mr. Lee especially had referred to experiments recorded not long since by himself to show that such inoculations could not be made with success. Mr. Lane, however, remembered a paper published by Mr. Lee ten years ago, in which he demonstrated by experiments that the indurated sore was inoculable on the bearer, if it were irritated and made to secrete pus. But the negative evidence of those who failed in these inoculations ought surely to be outweighed by the positive evidence of those who succeeded; for, besides the five cases alluded to in the paper, the thing had been done repeatedly by others—by M. M. Robert, of Marseilles, Dr. Pick, of Vienna, and constantly by Drs. Boeck and Bidenkap, of Christiania, all thoroughly competent and trustworthy experimenters. It was quite impossible to account for all these cases by the hypothesis of a possible contamination of the lancet with matter from a soft sore. That the matter from a hard sore should furnish by inoculation pustules and ulcers identical in appearance and progress with those obtained in the same way from the soft sore, was, he thought, very strong proof that these two kinds of sores were not the products of separate and distinct contagious principles, but were modifications only in the action of a single syphilitic virus. Again, with respect to the immunity, the reality of which had also been called in question, and as evidence against which Mr. Lee had quoted inoculations made by himself on two of these patients after their treatment was concluded by Dr. Boeck, it was true that in both those cases small pustules followed Mr. Lee's inoculations, as will frequently happen when pus from any source is introduced into the tissues, but they must fulfil the test of being again inoculable before they can be accepted as syphilitic. In one of the cases this test gave a negative result. The experiment, therefore, only corroborates the existence of the alleged immunity in that particular patient. In the other case the pustule was reinoculable a second, but not a third time. Here, therefore, it did prove that the immunity was not quite complete, though it was very nearly so. Practically, the immunity amounts to this: that after a certain period, varying in different patients, it becomes impossible to obtain a positive result at all; or if pustules are formed, they are small and abortive, and incapable of being inoculated through more than one or two generations. The treatment, therefore, perforce comes to an end. He could not help remarking that some authorities who denied the immunity had also, somewhat inconsistently, endeavoured to show that the immunity which they deny may be obtained equally after long-continued pustulation artificially caused by any other agent, such as tartar emetic or croton oil. It had been said that there was no proof of saturation of the system with the syphilitic virus under syphilisation, or, indeed, of any absorption at all. In that view he entirely concurred. The saturation theory was adopted by the earlier experimenters, but it was not that now held — at all events by the Norwegian school. A more reasonable view was that the virus of constitutional syphilis, which has a natural tendency to work its own way out of the system in course of time, may be carried through its course and got rid of more rapidly and safely through the skin by means of the specific action of the inoculations—the advantage being that its influence is thus made to confine itself to the skin, and is diverted from more important structures, such as the bones and internal organs.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the Diploma were admitted Members of the College at a meeting of the Court of Examiners on the 23rd inst., viz.:—

Messrs. Henry Culliford Hopkins, Gawbridge Martock, Somerset; Humphrey Lloyd Williams, Bala, Merionethshire; Nathaniel Howard Jarvis, Kingsbridge, Devon; Haswell Delabere Shelton, Bromyard, Herefordshire; and John Griffith Lee, M.A. Cantab., Tenby, South Wales (students of St. Bartholomew's Hospital); William Charles Gasteen, M.B. Trin. Coll. Dub., Dublin; William Isaac Williams, Abergele, North Wales; Henry George Hall, Dublin; and Richard Arthur Prichard, Pwllheli, North Wales (of the Dublin School); William Alfred Hunt, Yeovil, Somerset, and Samuel Freeman Bagnall, L.R.C.P. Lond., Bedford-square (of King's College); Thomas Fawsitt, Oldham, and William Hodgson Carruthers, Halton, Cheshire (of the Manchester School); Joseph Chaning Pearce, Bristol, and Thomas Dudley Saunders, Bath (of the Bristol School); Charles Newton Bell, Rochester, and Alexander Cummings Air, Walworth (of St. Thomas's Hospital); Charles Sangster, L.S.A., Lambeth-terrace (of Guy's Hospital); Charles Henry Lister, Doncaster (of University College); Robert Alcock, Burslem, Staffordshire (of the Charing-cross Hospital); Frederick Churchill, M.B. and C.M. Edinb., Penge, Surrey (of the Edinburgh School); Edmund Cuthbert Ring, Foxley-road, Kensington (of St. George's Hospital); and William Edward Green, Droitwich (of the Birmingham School).

At this meeting of the Court of Examiners, Professors Samuel Solly and Sir William Fergusson, Bart., the recently elected members of the Board, took the seats rendered vacant by the resignations of the late Sir William Lawrence and Mr. Francis Kiernan respectively.

Admitted Members on the 24th inst.:—

Messrs. Oswald Henry Foster, M.A. Cantab., Hitch'n, Herts; Augustus Wells, Sydney, N.S.W.; Frederick Aubrey Thomas, L.R.C.S. and L.R.C.P. Edinb., Devonport; and William Henry Rawlings, Liskeard, Cornwall (students of Guy's Hospital); Charles Dennis Hill Drury, Newcastle; George William Geldart, North Shields; Edward Bray Pellew, Gateshead; and George Bolton, Sunderland (of the Newcastle School); James Peter Byrne, Glencaly, co. Wicklow, and Thomas Castley Bailey, Penrith (of the Dublin School); Joseph Moore, Manchester, and Edward Reginald Johnson, Jersey (of St. Bartholomew's Hospital); Charles Ogden,

Rochdale (of the Liverpool School); Francis Raworth Heycock, Pytchley, Northamptonshire (of the Edinburgh School); Louis Marc Le Grand de la Liraye, L.R.C.P. Lond., Paris (of University College); Henry Walmsley, Preston, Lancashire (of St. Thomas's Hospital); John Thomas Hughes, M.B. Aberd., Llanrwst, North Wales (of the Aberdeen School); Robert Lewis Willcox, L.S.A., Wareham, Dorset (of King's College); and Thomas Standish, Dudley (of the Birmingham School).

Examination in Arts.—The following are the names of the successful candidates at the recent Preliminary Examinations for the Fellowship and Membership of the Royal College of Surgeons of England. For the former qualification there were 12 candidates, of which number 10 passed, viz.:—

Messrs. Richard Davy, J. K. Grosjean, Robert Birch, Edward Skinner, A. A. Taylor, W. F. Lill, G. E. Norton, Seymour Taylor, William Curling, and W. E. Crowther.

For Membership there were 123, of which number 29 failed to acquit themselves to the satisfaction of the Examiners, and were consequently referred to their studies. The following passed:—

Messrs. T. V. Aylen, R. C. Atthill, B. P. Alderman, C. H. Andrew, T. H. Brabant, Ernest Birt, C. T. Alexander, W. J. Boreham, James Bullpitt, E. C. Baber, J. M. Bromley, E. C. Craig, C. P. D. Chittenden, F. H. Clarke, A. M. Cash, R. F. Crofton, A. J. Chalmers, J. B. Cook, William Clement, C. W. Drew, Arthur Curtis, John Fordham, B. B. Floyer, W. T. Dinnen, W. T. Evans, W. G. Foster, B. W. Fowler, Robert Gibbs, W. E. Back, H. C. M. Gibson, Christopher Harvey, A. L. Heale, H. W. Holman, Henry Hex, C. H. Griffith, G. M. Grant, H. R. G. Hughes, G. H. Heald, T. D. Harries, J. A. Hendry, E. S. Holthuse, A. N. de V. Irwin, T. P. Lucas, J. E. H. Ireland, Bernard Jackson, Cleland Lammiman, T. C. Lawson, H. A. Latimer, A. H. Laver, L. G. Leslie, D. P. James, A. S. Morton, F. A. Owgan, A. J. Moore, W. P. Nesbitt, Ralph Kinder, W. A. Moseley, J. R. Kemp, J. C. Parker, J. C. Norman, John Padman, Frederick Peet, J. P. Oates, E. A. Piggott, Thomas Procter, F. H. Padmore, J. M. Pletts, J. W. Greenwood, R. L. Routh, Benjamin Rix, C. C. Rogers, J. J. Sarjant, H. G. B. Russell, Edward Sergeant, E. W. H. Sall, T. P. Stephens, George Towers, W. H. Tucker, Charles Willacy, W. J. C. Whitfield, G. H. Watson, C. C. Walter, D. M. B. Wheeler, Richard Williams, J. F. Wells, F. G. A. Rogers, H. R. Bracey, G. W. Whittingham, F. W. Cole, J. J. Seaton, Alfred Matcham, J. E. Pearce, Amiraux Godfrey, and Frank Perrins.

These Examinations, which were conducted by the Staff of the Royal College of Preceptors, extended to three days. The successful candidates can at once enter on their Professional studies.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 18, 1867:—

James Baynard Saundry, St. Levan, Penzance; John Greaves Wiseman, Springstow House, Ossett, Yorkshire; Frederick Charles Shaw, Hampstead; William Dickson, 3, Theberton-street, Islington.

The following gentleman also, on the same day, passed his First Examination:—

Frederick James Naish, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

WILLIAMS, CHARLES T., M.A., M.B. Oxon, M.R.C.P., to be Assistant-Physician to the Hospital for Consumption and Diseases of the Chest at Brompton.

BIRTHS.

CROCKER.—On July 17, at Belfast, the wife of Surgeon-Major Crocker, the Buffs, of a daughter.

DICKSON.—On July 21, at No. 1, The Square, Buxton, the wife of Dr. F. K. Dickson, of a son.

JONES.—On July 14, at Prospect-house, Upper Gornal, Dudley, the wife of Alfred Jones, Surgeon, of a son and heir.

LEVICK.—On July 16, at West Ham, Essex, the wife of George Levick, M.R.C.S. Eng., of a daughter.

MACKENZIE.—On May 9, the wife of Walter Fawkes Mackenzie, Esq., M.D., of West Maitland, New South Wales, of a son.

PROPERT.—On July 22, at 1:0, Gloucester-place, Portman-square, the wife of J. L. Propert, Esq., M.B., of a son.

TURNER.—On July 20, at Woodside, Upper Norwood, the wife of J. Sidney Turner, M.R.C.S., of a daughter.

WIGMORE.—On July 18, at 21, Inverness-road, Bayswater, the wife of William Wigmore, M.R.C.S.E., of a son.

MARRIAGES.

BURY—JONES.—On July 20, at St. James's Church, Gravesend, by the Rev. John Joynes, incumbent, assisted by the Rev. J. B. Dalton, M.A., Albert, eldest son of John Bury, Esq., of Wrexham, Denbighshire, to Alice, eldest daughter of S. E. R. Jones, Esq., M.D., Milton next Gravesend, Kent. No cards.

PARSONS—GATCOMBE.—On July 16, at Frampton-on-Severn, by the Rev. F. M. St. John, vicar, Henry James Parsons, Esq., eldest son of John Parsons, Esq., F.R.C.S., of Bridgwater, to Anna Maria, eldest daughter of the late Joseph Ruscombe Gatcombe, Esq., of Ashfield House, North Petherton, Somersetshire. No cards.

WILLETT—BURROWS.—On July 23, at All Souls' Church, St. Marylebone, by the Rev. Frederic Willett, M.A., perpetual curate of All Saints, West Brompton, Alfred Willett, F.R.C.S., of 36, Wimpole-street, Cavendish-square, to Rose Ellen, only daughter of George Burrows, M.D., F.R.S., of Cavendish-square.

DEATHS.

BRYANT, JOHN, M.D., at his residence, Colebrooke-villa, Finchley, formerly of the Edgware-road, on July 1, in his 80th year.

CRIDGE, EPHRAIM MATTHEWS, M.R.C.S., at Grafton, New South Wales, on May 2, aged 35.

DAVIES, MARY MARIA, widow of the late Thomas Davies, M.D., of New Broad-street, City, at 18, Loraine-place, Holloway, on July 18, in her 74th year.

MACPHERSON, DUNCAN, M.D., Inspector-General of Hospitals, Madras Army, at Mercara, Coorg, India, on June 8.

STILLWELL, GEORGE JAMES, M.D., of 72, Park-street, Grosvenor-square, and Moorcroft, Hillingdon, Middlesex, on July 22.

FELLOWSHIP EXAMINATIONS.—The Council of the Royal College of Surgeons of England has just issued the new regulations respecting the Professional examinations for its Fellowship, from which it appears that in future those candidates undergoing the ordeal will have to submit to a *viva voce* as well as a written examination; that in the first examination junior candidates will not be required, as heretofore, to dissect, but that all candidates, whether seniors or juniors, will be examined *viva voce* on dissections and preparations; and that the second examination will include the practical use of Surgical apparatus. The next examination under these new regulations will take place about the middle of November.

CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS.—Among the objects of interest exhibited on Wednesday evening were—Dr. Guy's collection of sublimates of the alkaloids, some of them as small as the 1-8000th of a grain, yet presenting perfectly distinct and recognisable forms. The collection of new and altered preparations of the British Pharmacopœia, under the superintendence of Professor Redwood, was an object of interest to many, some of the preparations being most elegant. But in this particular department Messrs. Morson shone conspicuous, for with them that very rare object crystalline aconitine was to be seen in considerable bulk; they also exhibited the finest specimen of meconine we have ever seen. Some new substances, as the oil and resin of hyoscyamus, were also shown by the same gentlemen. Messrs. Savory and Moore, along with a beautiful collection of salts, exhibited very good specimens of pancreatine and pancreatic emulsion, and Mr. Buckle showed some of his excellent vegetable juices, as succus conii, hyoscyami, and digitalis. Other objects of interest there were, as the usual display of microscopes, electrical machines, and so on, but none of greater interest to the visitors than the excellent portrait of the late respected President, Sir Thomas Watson, by G. Richmond. The company separated at a late hour highly pleased with their evening's entertainment.

SANITARY STATE OF SWANSEA.—The following statement relative to the sanitary state of Swansea, a town generally supposed to be characterised by bad drainage, has been published by the Town Clerk:—"The borough, at present populated by between 60,000 and 70,000 persons, is supplied with pure water brought a distance of some nine miles from reservoirs capable of containing 300,000,000 gallons; the bulk of the district is thoroughly sewered; the system of water supply and sewerage is gradually being extended; and these works, with other works of sanitary improvement, have involved an expenditure of upwards of £200,000. The provisions of the Nuisances Removal Acts and the Sanitary Act of last session are moreover vigorously enforced. The 'port of Swansea' does not of necessity mean the 'town of Swansea' merely, but simply the largest and most available port for the extensive iron and coal districts extending for miles at its back."

DR. HITCHMAN.—The gratuitous labours of Dr. Hitchman, of this town, in the service of the poorer classes of suffering humanity, are about to be recognised in a tangible form. During a long series of years, at all times and seasons, as well as in every portion of Liverpool, where lived sick poor afflicted with "consumption," Dr. Hitchman has freely given his valuable services without fee or reward, no matter of what country, colour, or creed, individual sufferers may have been. In appreciation of these services a number of gentlemen have inaugurated a subscription for the purpose of presenting Dr. Hitchman with a suitable testimonial as a reward for the philanthropy he has displayed.—*Liverpool Daily Post.*

CHOLERA IN ROME.—On the 18th inst. the number of deaths from cholera in the "Holy City" was twenty-two.

DEATH FROM LAUDANUM.—The case upon which Dr. Lankester last week held an inquest, in which the jury returned an open verdict, demands, in our opinion, some further inquiry. In the reports of the inquest a distinct insinuation is made to the effect that the dispenser at the Middlesex Hospital may, through carelessness, have improperly "made up" the prescription for the mixture by which the child in question is said to have been poisoned. This slur upon an official in a public institution ought to be rebutted.

CATTLE PLAGUE INQUIRY.—For the week ending July 20, one fresh outbreak has been reported; viz., at Long Sutton Crosses, in Lincolnshire. One case of cattle plague is reported to have occurred during the week, being a decrease of 8 on the previous return. The diseased animal died. There were 22 healthy cattle slaughtered to prevent the spread of the disease. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,732, and 56,922 healthy cattle have been slaughtered to prevent the spread of the disease.

WHY THE CATTLE PLAGUE HAS BROKEN OUT IN ESSEX.—In a letter to the *Pall-mall Gazette*, Mr. J. Waller implies that the outbreak was occasioned entirely by a neglect on the part of the officials of that vigilance which should now be exercised in all matters relating to the importation of foreign cattle. Mr. Waller says the outbreak need not surprise us when we are acquainted with the following fact:—The Antwerp cattle steamer arrived at Harwich at 9.40 a.m. on Wednesday last. Her cattle reached the Maiden-lane Station for the Metropolitan Market at 3 a.m. the following day. As twelve hours' quarantine must elapse previously to the veterinary inspection, it follows this examination must have taken place, and the certificate have been granted *by night*.

THE annual meeting of the Metropolitan Poor-law Medical Officers' Association will be held at the Freemasons' Tavern, on Tuesday, July 30, at 5 p.m. After an address from the President, and reading of the quarterly report by the Honorary Secretary, resolutions condemning the system of taking lunatic paupers into police courts for certification as to their insanity by police magistrates, before removal to an asylum, and a memorial to the Lunacy Commissioners and the Poor-law Board on this question will be submited, together with suggestions for establishing more intimate relations (in the public interest) between Poor-law Medical Officers and Medical Officers of Health, and the advisability of petitioning the House of Commons praying it to pass the Bill, now before it for making the Poor-law Board permanent. After the meeting the members, honorary members, and friends of the Association, will dine together; dinner on table at half past six. All gentlemen intending to dine with the Association are requested to send their names to Dr. Dudfield, Honorary Secretary, 8, Upper Phillimore-place, Kensington, or to Dr. Rogers, 33, Dean-street, Soho, without delay.

DR. GIBBON ON SMALL-POX.—We observe, in Dr. Gibbon's report to the Holborn Guardians, that no fewer than thirty deaths have occurred from small-pox in that parish during the past year. This unusual mortality Dr. Gibbon connects with imperfect vaccination, which again he traces to insufficient pay. We are quite at one with Dr. Gibbon in this respect, and think that the cumbrous array of officials and inspectors proposed to remedy this defect could be perfectly well dispensed with were the vaccinators properly paid. We are sorry to see that the tendency on all sides is to diminish the already scanty supply of loaves and fishes available for the General Practitioner; the prizes in his life are but few, and the blanks many. To take steps, therefore, enforcing him to perform a duty for which he is insufficiently paid, is wrong in principle. Increase the premium for good workmanship, and we have no fears for the result.

PARIS STATISTICAL SOCIETY.—This learned body intends having six public *séances* (August 19 to 24), and any foreign *savants* wishing to be present are requested to put themselves in communication with M. Golzard, the agent of the Society, 92, Rue Richelieu, who will forward them programmes of the questions to be discussed, and will receive from them any papers they may wish to have read pertaining to such questions. The programme embraces the population question, emigration, illegitimate and still-births, division of property, credit establishments, primary instruction, and public assistance.

REMOVING INDURATED CERUMEN FROM THE MEATUS AUDITORIUS.—Dr. Coesfield states that every Practitioner is aware how difficult and tedious is the process of removing very old or adherent plugs of cerumen from the meatus by mere syringing with warm water. He adds that the procedure is facilitated and expedited in a remarkable manner by first introducing, once or twice a day, for two days in succession a half-teaspoonful of a warm solution (℥j. ad ℥j.) of carbonate of soda into the meatus, and retaining it there during fifteen minutes. After this, from four to six syringefuls of warm water suffice to dislodge the chemically acted upon cerumen, the water reissuing from the meatus of a brownish-yellow colour until all the wax has come away. If the removal of the wax were very pressing, a warm solution of soda might be resorted to, instead of warm water.—*Berlin Wochens.* No. 21.

LIEBIG'S MILK.—Baron Liebig terminates a letter to the Académie de Médecine, in which he confutes some of the statements of his chemical opponents, with these words:—"I can assure the Academy that I had never the least idea of substituting for human milk, when a sufficiency of it could be obtained, the preparation which I have proposed, and which very certainly, as stated by M. Boudet, as regards its density, taste, and composition, is but a rude imitation of so perfect a model. Still, it is a fact that has been established during the last two years, that thousands of infants of the Teutonic race, deprived of their mothers' milk and nourished with this 'strange compound,' have thriven surprisingly well. As to cow's milk of a 'uniform composition,' I acknowledge its excellent effects without any reserve; but such normal milk is little better than a myth, and very different from the cow's milk which we meet with in trade and in great towns."

THE *Estafette de Lausanne* relates that the tribunal of police of the canton of Vaud (Switzerland) has lately been engaged in trying a young man named Piquilloud, charged with having for some time past practised Medicine and Surgery in female attire. It appeared that he had succeeded in completely disguising himself as a woman, and had obtained, under the name of Miss Abbots, and in the quality of an American, admission into several families, offering his services chiefly to ladies. The fraud was detected by a hair-dresser, to whose shop he went to purchase a chignon. It was found that he could only be convicted of the illegal exercise of his profession, and on that count the court condemned him to one month's imprisonment.—*Galignani's Messenger*.

FOUNDERS' DAY AT EPSOM.—Thursday, last week, was the annual festival at Epsom College. The President, Earl Granville, K.G., occupied the chair, and distributed the prizes as follows:—*Principal Prizes.*—Hodgkin, Elcum; Brande, essay, Sloman, ma.; Brande, good conduct, Taylor, ma.; Sterry, Cotes; Carr, Neilson, ma.; Engledue, essay, Burleigh, ma.; Engledue, Latin verse, Cotes; Greek verse, Newton; Classics, Newton; Mathematics, Newton; History, Elcum; French, Taylor, ma.; German, Newton; Italian, Newton. *Scholarships.*—School: Senior, Newton and Taylor, ma.; Junior, Tennant and Sloman, mi.; Gilchrist, Eastes; Forest, Cotes; Medical, Taylor, ma. Other Prizes were also distributed as follows:—Elocution: 1, Carter, mi.; 2, Sloman, ma. Divinity: 1, Sloman, ma.; 2, Greensill. Choir: Maclean, ma. Classics, etc.: 5th form, Carter, mi.; Upper Remove, Wright, ma.; Lower Remove, Simpkins; upper 4th, Milne; lower 4th, Slader, middle, Bannister; upper 3rd, Perry and Phillips; lower 3rd, Jones, mins., and Sloman, mins.; upper 2nd, Davies; lower 2nd, Litchfield, ma.; 1st, Brewer, mi Arithmetic: 1, Monks, ma.; 2, Hopkins. History: 2, Collins, ma. French: 2, Howard. German: 2, Lord. Drawing: Ingle, Cowan, ma. Drill: Taylor, ma. The first-named prize (the Hodgkin) consisted of a £20 note and a certificate for good conduct. The other prizes were books, some of which were of considerable value. In the course of the proceedings the head-master, Dr. Thornton, read the list of honours obtained by the scholars. He said that list was not a long one, but it was a most satisfactory one, and he (Dr. Thornton) congratulated the founder (Mr. Propert) on being present to see the growth of his own child and to hear of the success that had been obtained—a lot which he was sure William of Wickham would have much enjoyed. One of the scholars, Elcum, had obtained an open scholarship at Cambridge, and subsequently distinguished himself at College examinations; another, Nicholson, had been fortunate enough to obtain an appointment in the Civil Service of India, by open competition; Eastes held a very respectable place in the honour list

for Matriculation at the University of London; and Taylor was in the first class at the same examination. The following speeches were recited:—Carmen Gratulatorium, Newton; Medea's Lament, Apollonius Rhodius, Williams; The Obsequies of Paulus, Silius Italicus, Wakefield; Theuropides and Tranio, a Ghost, Plautus, Mostellaria, Taylor and Cotes. The company included—the Countess Granville, the Right Rev. Bishop Tozer, John Propert, Esq., and Mrs. Propert, Miss H. Propert, Mrs. Thornton, Mr. and Mrs. Freeman, Dr. Carr, Dr. Neill, Dr. Hogg, and the Misses Hogg, H. Sterry, Esq., T. H. Smith, Esq., Major Cotes, H. Cotes, Esq., Dr. Cree, T. Wakefield, Esq., Dr. Beaman, R. Tippets, Esq., Dr. Taylor, Dr. Williamson, Dr. Roe, G. H. Ellis, Esq., Dr. Price, Dr. Atkinson, etc.

GERMAN STUDENTS.—The following is a table of the number of students at the German Universities during the winter session 1866-67. The omission of Vienna is significant.

Universities.	Students.	Medical Students.
Berlin	3007	411
Breslau	1043	199
Konigsberg	460	87
Bonn	952	213
Greifswald	442	273
Halle	833	111
Münster	538	—
Marburg	245	32
Leipzig	1114	170
Jena	447	65
Göttingen	769	189
Rostock	167	36
Giessen	349	75
Munich	1170	217
Wurzburg	561	215
Erlangen	421	77
Tubingen	756	103
Heidelberg	742	66
Freiburg	311	44
Kiel	242	72

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Lex.—1. Yes. 2. For both medicine and attendance in either a Medical or Surgical case.

Cambria.—Dr. Clifford Allbutt's short clinical thermometer is quite accurate; length about six inches; price, including carriage, 11s. Write to Harvey and Reynolds, 13, Briggate, Leeds.

Aridus.—There is not the smallest foundation for the notion that Beaujolais wine causes worms. There must be maggots in the brain of the person who invented such an idea.

The author of the well-known epigram, "Erect and firm the Caledonian stood," was not Sir Walter Scott, but Home, the author of "Douglas."

We believe that the use of a small piece of moistened cotton as a substitute or aid to a perforated membrana tympani is due to Dr. Yearsley, who published the fact in 1848. Dr. Yearsley has published several works on the ear.

Notes and Queries are of very ancient date in one form or other. We have before us the *Athenian Mercury*, vol. vi., Nos. 27 et seq., printed at London for John Dunton, 1692, which is a weekly sheet filled with queries and answers smacking strongly of the philosophy of the time. One item is—"A woman, near Newgate, was delivered about three weeks ago with a fine child, which was often heard to cry eight weeks before." The editor vouches for the possibility of the occurrence, inasmuch as *Weinrichius, Dr. Needham, Bartholini*, and others had given relations of this nature. It is still more common to hear children cough *in utero*. "The Air," continues the editor, "is the Medium of conveyance, and all Bodies have Air in 'em, as Mr. Boyle has learnedly discours'd in his 'Porosity of Bodies.'" The questions of the lawfulness of vivisection, of the nature of perception, of the Medical efficacy of being "stroaked by a seventh Son for the Evil," of the mystic number of the Beast, etc., etc., are also discussed.

Dr. William Fordyce, in his "New Enquiry on Fevers," dated from Warwick-street, Westminster, in 1773, gives prescriptions for that combination of *rhubarb and polychrest salt*, which has been in much favour with practical men since. Dr. W. Fordyce seems to have been a capital Practitioner; to have avoided mere routine, and trusted largely to the indications of natural appetite. Tamarinds, barley-water, and white wine whey were frequently prescribed by him. When a rich man wanted a cordial during fever, he ordered a glass of Burgundy, Bordeaux, or Rhenish. This was the "*haustus cardiacus divitum*;" but there was a "*haustus cardiacus œconomicus*," consisting of a small glass of old cider, or red Portugal, or light Spanish wine. As a preventive of threatened fever, he ordered a dose of sixty grains each of rhubarb and polychrest salt for one dose for an adult. For the hectic fever and swelled bellies of children, he gave ten grains of the sulphate of potass and three to seven grains of rhubarb every morning for a fortnight. He claims great credit for publishing these remedies, particularly the latter, which he calls his *anti-hectic and antirachitic*. Theories may vary, but Fordyce's practice holds good as ever.

MEDICAL LORD MAYORS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Seeing a question in your paper concerning Medical Lord Mayors, I send you a list of those who have filled the office in York since 1835:—1840, W. S. Clark, who was knighted; 1842, Wm. Matterson; 1859, W. D. Husband.

I am, &c.
MEDICUS.

York, July 23.

HOW TO WEIGH A NEWLY BORN INFANT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the letter of your Paris correspondent in last week's *Medical Times and Gazette* is mentioned an ingenious instrument for weighing newly born babies, consisting of a modification of the ancient steelyard, capable of being unscrewed and put together again for the sake of portability. Perhaps I may be allowed to mention a much more portable and handy machine which I have been for some years in the habit of carrying in my pocket for the same purpose. It is a simple brass tube, four inches long, containing a spring. There is a ring at one end to hold it by, and a hook at the other to suspend the object to be weighed, and an index which tells the weight by the degree to which the spring is depressed. It is the simplest thing in the world to put your baby (when born) into a napkin, tie that by the four corners, and hook it up securely, when the weight may be read at a glance.

It may not be out of place to mention the multiform uses of this little pocket weighing machine indoors and out. As accoucheurs may weigh a baby, so may sportsmen a bird or fish; housekeepers may check their butchers and grocers; and machines of the same sort may be had of every size and power.

Mine was bought at Thornhill's, the cutler's, in New Bond-street, and weighs up to 14 lbs. I never delivered a baby that weighed more.

I am, &c.
R. DRUITT.

37, Hertford-street, London, W., July 24.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF PHYSICIANS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your remarks upon the recent election of Fellows at the Royal College of Physicians will probably excite the very serious attention of the Profession

It will be an evil hour for the College when suspicion shall have grown into conviction that scientific labour does not constitute the particular requirement for the nomination paper.

I can by no means concur in the supposition of an able writer in the *Lancet*, that the Council may possibly feel the selection of Fellows to be a matter of difficulty. There surely can be none if the claims of Members are fairly looked into; but "none so blind as those who will not see."

No, no, Sir, depend upon it the gist of the matter is not in this direction. There are sins of commission as well as sins of omission. But, betide what may, Sir, you have done your duty, and the Members of the College will one day thank you, for it is a matter which vitally concerns them all.

I am, &c.
OBSERVER.

DR. RICHARDSON'S LAST LECTURE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

SIR,—Every one must have read with great interest the reports of these lectures; and so much hangs on the exact interpretation of facts which are presented in this way by a physiologist so advanced as Dr. Richardson, that perhaps I may be allowed to call attention to a point I cannot understand.

If it should appear that the difficulty rests solely with my own obtuseness, there may be other readers in the same position to whom an explanation from Dr. Richardson may also be useful. My difficulty occurs in the following passage:—

"I take my watch in motion; I bring extreme cold to bear on the box holding the mainspring; I change in this manner the condition necessary for the work of the spring, and the watch immediately ceases to go. It is not physically injured, but it is stopped, and it would remain stopped for any length of time, the conditions being precisely the same. I change the conditions; I allow the watch to absorb the surrounding heat, and in time, of itself, it goes again. *In the watch, the cold stopped the motion by modifying the molecular condition of the metals.* In the frog the water stands in the place of the metals, and the cold stopped the motion by acting on the water."

In the sentence which I have italicised, it is asserted that "cold modifies the molecular condition of the metals," and this, if correct, is certainly worthy of more explicit statement, as I believe that it amounts, under these circumstances, to a new discovery in physical science. Of course, cold contracts and heat expands everything, but that fact can scarcely be alluded to as a modification of "molecular condition."

There is, however, an element in every watch which has not been mentioned, and which is always the bugbear to scientific chronometer makers—the oil. Horological experts can compensate for all the variations of bulk that variations of temperature cause in the metallic machinery of a watch. They can lessen the friction to a minimum by jewelling and other devices, but they cannot do without oil, and they cannot get an oil which does not freeze. Now, the generally accepted reason why a watch stops in very cold weather is that the oil freezes, and I have never before heard it suggested that its stopping was due to any "molecular change in the metals." Perhaps Dr. Richardson could spare a moment to make this clear.

I am, &c.
JAMES EDMUNDS, M.D.

4, Fitzroy-square.

DR. MACLOUGHLIN AND THE ADMIRALTY ON THE EXISTENCE OF SYPHILIS

*** We have been requested to publish the following letter:—

[Copy.]

36, Bruton-street, Berkeley-square, London, W., May 20, 1867.

MY LORD,—Three years ago I addressed a pamphlet to the Secretary of State for War, calling his attention to the fact that no Medical Practitioner in England or France could or can point out one symptom pathognomonic of a syphilitic virus; and I took the liberty to suggest the

appointment of a Medical committee to study and to report if there is a syphilitic virus, and, if so, what are its pathognomonic symptoms on the reproductive organs, or on any other part of the body.

The War Office and the Admiralty accepted my suggestions. A Medical committee was appointed. But, unfortunately, instead of calling on the committee to study and endeavour to ascertain if there is a syphilitic virus, their instructions assumed the existence of a syphilitic virus, and called on them to prescribe for the cure of this virus, without being aware if such a virus exists.

The result is, that this committee have made confusion worse confounded, and that the public is injured by their report.

I am aware that I have not the advantage to be known at the Admiralty, but I trust I may be permitted to appeal to what is on record in the Medical world as to my antecedents as a Medical Practitioner, in support of my claim to have an opinion, and to be heard on a Medical and Surgical question.

While residing in Paris, as a Medical Practitioner, seven-and-twenty years ago, I was suddenly called to give an opinion relative to a person who was said to be completely paralysed of the seven-tenths of her body. I certified that she was in perfect health—that she was an impostor.

This certificate entailed two law-suits on me. At the last, the celebrated Professor of Morbid Anatomy, Dr. Cruveilhier, was brought into court, armed with a number of certificates from eminent professors, to rebut my certificate. I there and then publicly called on Professor Cruveilhier and his brother professors to come to the bed-side of their patient, and that there I would prove to them that I was right.

They accepted my proposal. The public consultation took place on February 26, 1840, at the Hôpital de la Charité, in Paris, where I stood, single-handed, before six of the first professors in Europe as to anatomy, physiology, and pathology, and a gallery of between 150 and 200 Medical Practitioners. The result was, that they admitted that they were in error. Professor Gerdy went so far as to publicly thank me for having called their attention to minute points of pathology which were completely new to them, and which, he said, they considered heretofore beneath them to study, but of the importance of which they now were aware.

Five-and-twenty years ago I had a public consultation with Dr. Ricord, the greatest syphilidographer of the age, to moot the question as to the proofs of the existence of a syphilitic virus. I publicly brought him to acknowledge that he knew no symptom pathognomonic of a syphilitic virus.

The first object I had in view by bringing these facts to the knowledge of the Admiralty, who have taken charge of the inquiry which I have suggested relative to syphilis, is, to request that it may please the Admiralty to call the above committee together, and permit me to examine them and the witnesses which they have examined, publicly, as I did the above professors and Dr. Ricord; and I pledge myself that I will bring them to acknowledge that they cannot point out one symptom pathognomonic of a syphilitic virus.

If the Admiralty refuse that proposal, my second object I have in view is, that it may please the Admiralty and the War Office, in the interest of the navy, in the interest of the army, and in the interest of the public, to appoint another Medical committee to study and to report if there is a syphilitic virus, and, if so, what are its pathognomonic symptoms on the reproductive organs, or on any other parts of the body, and what is its method of cure.

I have the honour to be, my Lord, your Lordship's obedient servant,

DAVID MACLOUGHLIN, M.D.,
Member of the Legion of Honour.

P.S.—With sentiments of respect, I beg to remind the Admiralty and the War Office, that before I addressed the above pamphlet to the Secretary of State for War, pointing out the necessity to have the so-called syphilitic disease scientifically studied, that, according to your Lordship's statement in the House of Commons on the 15th March last, the rate of the so-called disease was 7¾ per cent. of the strength, but that now it has almost disappeared at Sheerness, and is only 2½ per cent. of the strength at Plymouth.

Lord Henry Lennox, M.P., Secretary to the Admiralty.

COMMUNICATIONS have been received from—

Mr. Holme; Mr. Duncan; Mr. Hart; Dr. Rogers; Dr. Mayesmor; Cambria; Dr. Wilson; Medicus; Lex; Dr. C. T. Williams; Mr. F. J. Gant; Dr. Robert Barnes; Mr. E. Bellamy; Mr. J. Chatto; Mr. G. Gaskoin; Mr. Massey Harding; Dr. Althaus; Dr. B. W. Richardson; Mr. J. Churchill.

BOOKS RECEIVED—

Trench's Report on the Health of Liverpool—Morris on Shock—Hirschfeld's Nervous System, Part 2—Pavy on Digestion—Lothians Medical Association Report—Griesinger on Mental Diseases—Inman's Ancient Pillar Stones—La Tisis Pulmonal curada por el Cambio de Clima (Pulmonary Phthisis cured by Change of Climate), by Don Ramon Hernandez Pozzio, of Cadiz. 1867. Pp. 139.

NEWSPAPERS RECEIVED—

News of the Week—Medical Press and Circular—Surrey Gazette—Liverpool Daily Post.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 20, 1867.

BIRTHS.

Births of Boys, 976; Girls, 934; Total, 1910.
Average of 10 corresponding weeks, 1857-66, 1781·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	637	593	1230
Average of the ten years 1857-66 ..	684·2	638·9	1323·1
Average corrected to increased population..	..	..	1455
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	..	7	..	4	1	22	..
North ..	618,219	6	1	9	3	9	8	48	..
Central	378,658	2	4	1	1	4	5	27	..
East ..	571,158	4	4	3	..	15	8	46	..
South ..	773,175	2	2	14	2	3	8	27	..
Total ..	2,803,989	14	11	34	6	35	30	170	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·504 in.
Mean temperature	59·0
Highest point of thermometer	74·3
Lowest point of thermometer	51·2
Mean dew-point temperature	52·3
General direction of wind	S.W.
Whole amount of rain in the week	1·75

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 20, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending July 20.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending July 20.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082377	39·5	1910	1421	1230	74·3	51·2	59·0	1·75	177
Bristol (City) .	165572	35·3	110	74	151	67·9	49·8	57·8	1·74	176
Birmingham (Boro')	343948	43·9	243	167	155	70·7	47·5	58·8	1·71	173
Liverpool (Borough)	492439	66·4	291	325	254	..	..	..	..	..
Manchester (City) .	362823	80·9	217	265	1200	68·5	48·0	56·3	3·19	322
Salford (Borough) .	115018	22·2	73	58	55	65·5	45·2	55·0	3·72	376
Sheffield (Borough).	225199	9·9	190	119	79	68·0	48·0	55·8	1·96	198
Leeds (Borough) .	232428	10·8	127	118	103	72·0	42·5	57·4	1·66	168
Hull (Borough) .	196740	30·6	61	49	45	..	..	..	..	..
Newcastl-on-Tyne, do.	124960	23·4	75	66	56	66·6	48·0	55·7	1·56	158
Edinburgh (City) .	176081	39·8	129	85	97	65·7	48·0	56·8	1·20	121
Glasgow (City) .	440979	87·1	403	257	228	67·1	48·1	57·5	0·78	79
Dublin (City and suburbs) .	319210	32·8	133	1157	114	72·9	45·1	57·4	1·58	160
Total of 13 large Towns . .	6187764	34·8	3962	3061	2672	74·3	42·5	57·0	1·90	192
					Week ending July 13.	Week ending July 13.				
Vienna (City) .	(1863) 560000	..	..	..	297	..	..	59·9	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·504 in. The barometrical reading increased from 29·26 in. on Monday, July 15, to 29·69 in. on Saturday, July 20.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 60·0°.

APPOINTMENTS FOR THE WEEK.

July 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

30. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

31. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

August 1. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

2. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

ON THE INFLUENCE OF EXTREME COLD ON NERVOUS FUNCTION.

(Continued from page 58.)

PRACTICAL INFERENCES CONTINUED.

Caloric the Form of Force in Nervous Matter.

The next point which calls for special remark relates to the nature of the force with which the nervous matter is supplied. This subject has occupied the minds of the first of the thinkers of the world, and I know of no subject more absorbing or more wonderful. The experiments of Galvani and Aldini on the influence of electrical action on muscular motion through nerve led, in the early part of this century, nearly all the physiological world to the belief that in the natural nervous system electrical force is developed, and that the nerve cords from the centres are the veritable conductors of electric currents. To this day the same view has been maintained with much persistency, and various analogies have been set up between brain force and that form of electrical force called galvanism—analogies, as I humbly think, having no real foundation in fact. In the year 1860, in the course of Lettsomian lectures "On Certain of the Phenomena of Life," I ventured to oppose some of these views, and to maintain that in the animal body there was no arrangement for the generation or liberation of any variety of force except caloric. I knew then none of the very singular experiments with cold which we have seen at the last as well as at the former lecture, but I reasoned that there was only one process in the organism for the production of animal force, and that this force, generated, or rather set free, in the combustion of blood, was an active force in every structure. Proceeding from the general to the particular, I laid down as a proposition that caloric is the primary cause of motion in nature, and is therefore a primary cause of life, in so far as motion represents life. To illustrate the position thus assumed, I was at that time compelled to resort to less direct modes of illustration than at this moment are necessary. I looked at the sun as, by the universal voice of mankind, the prime source of all living power, and I contended that the force by which he manifests himself throughout the living world is the force which in its effects, as sensible effects, we call heat, and which in all its characters, whether sensible, latent, or specific, we include under the more comprehensive term *caloric*.

I said that every observation we make in our natural lives leads to these inferences. We measure the amount of life, animal or vegetable, throughout the universe; and we learn that the proportion of life and of motion goes with the heating power of the central luminary. From the extreme pole to the burning equator, the eye glances in the imagination of absolute knowledge; and as each degree passes under review from the sterile centres of thick-ribbed ice to the intensified summers of the tropical gardens, we see the gradational life increasing until it reaches the maximum of luxuriance, and that stage of rapid growth and decay, when life and death play into each other with such force, that the one is, I had almost said, lost in the other; and viewing the scene, philosopher and simplest observer each says, "these are the effects of heat." We turn from this grand panoramic picture to our own smaller doings, and we find ourselves instinctively summoning into play a force to supplement nature—our designs are successful. We bathe our bodies in the rays of the fire when the sun retires, and we live. We wish our flowers to grow, and our fruits to run to maturity before their seasons, that our tastes may be satisfied; we make a furnace in our gardens, and our object is gained; we know here that the sensible caloric, the heat we have elicited, is the supplement of the sun. We enter into the laboratory, and we desire there to tear matter into fragments, or to conjoin materials which before were fragmentary. We dissipate solids into gases, and weld the fragmentary metal into a huge mass, an arch for a bridge, or a battery for war; and again we do it all (for we could not move a step otherwise), we do it all by the agency of caloric. We diffuse this agent through expansible water, and give to every cubic inch the dimensions of a cubic foot: the full expansion gained, we extract this expanding agent, condense the water to its original size, and by the alternation generate motion, thus imitating the great winds which, expanded in the equator, condense towards the pole, and in perpetual circuit make their way; and thus likewise imitating the gentle rain, which, distilled from the earth into the colder regions of space, condenses there and returns to its resting place in liquid drops.

We thus see in this caloric a great agent, possessing all the attributes by which the varying and yet universal properties of all matter are developed.

It is observable that in natural thought we never dream of attributing the changes noticed to any other force than caloric. It is only when we enter into philosophical subtleties that we begin to hear of other and correlative forces, as primary to caloric or substitutional for it. When, again, we turn to these profounder though probably not safer contemplations, we learn with equal sense of truth that, after all, caloric is the primary force—the first and last in action, and the universal in presence and production.

Carrying out the argument further in its especial application to living beings, I added what follows:—

"Limbs are flexible and moveable at 96 degrees of heat. If this temperature be reduced a few degrees, the muscles become painfully contracted: if the reduction be made further, the muscles become rigid; but they are relaxed by gentle warmth, and the motion is restored.

"In the animal world, I see different animals of different degrees of motive power and endurance. Examining their construction, I find as an unvarying law that the strength or the power of motion is in exact relationship to the power of the animal to eliminate and apply caloric.

"I see an animal at rest, and I notice that he converts a certain weight of carbon into carbonic acid, and liberates a certain proportion of water. I see this animal in active motion—a horse galloping with his rider, every muscle in full action; and now he pours out a greater measure of carbonic acid and volumes of visible vapour of water. Between the steam evolved by this animal and the steam evolved by a locomotive, will any one define to me the difference in relation either to cause or to effect? I mean, of course, in relation to the physical differences; for with the metaphysical I have nothing to do.

"In so far, then, as motion represents life, caloric is the source of living motion. It may undergo modifications in character; now being latent, now sensible; now being rapidly conducted through metals, or other conducting media; now rapidly evolved in series of concentrate sparks. We may call it in these varied forms by other names—*electrical force—galvanic force*—but it is the alpha and omega of them all—the principle of motion."

Lastly, in connexion with this universality of distribution of animal force, I inferred its unity in the animal organs, conceiving the active healthy living structures to be all stored, as it were, with force. Thus I showed "that, whenever muscular action is called into play by interference with the nervous cords, whether in the branches or in the spinal trunk itself, the excitation produces its effects by interference with the nervous column at the part irritated; not by propagation of a current through the nerve-trunk leading from the excited part to the deranged muscle. For instance, when I passed a continuous current through a portion of the spinal cord of an animal, I for the time produced a paralysis of the muscles which immediately communicate with that section of the cord; but that this is not an effect produced by a transmitted current to the muscles was proved by the fact that, by galvanising the nerves between the cord and the muscles, I could cause contraction of those muscles.

According to the view I then held, I also inferred from all the phenomena observed that the nervous system is in every part a producer of the peculiar force with which it is endowed; not that the brain or ganglia are special producers; not that a current from these centres, intermittent or continuous, is traversing the nerve-fibre; but that the nerve-structure, so long as it is supplied with blood, is producing the force wherever there is nervous filament. I looked on the vast area of nerve-fibre in the peripheral surface, and I saw in it a mass equal to that of the brain; I saw this mass supplied with blood everywhere, and built always on the same plan. I assigned to it everywhere the same purpose and labour.

In this way I was led to look on the muscular system as an

entire independency, and on the nervous system also as an entire independency. The muscular system, nourished by blood and charged with caloric as caloric; the nervous system, nourished everywhere by blood, and charged also with caloric in its electrical modification;—each independent systems We conjoin the systems, and the result of their equilibrium is a simple passive state, while the result of a disturbance of their equilibrium is motion and sensation.

Thus," I reasoned, "as every portion of nerve down to the minutest branch possesses producing power, the mass of the force generated is so universally distributed, that interference in any part of the nervous communications is reflected to the whole nervous system. So when our distinguished brother, Dr. Brown-Séquard, produces artificial epilepsy, and induces the paroxysm by irritation of some particular external point of nerve, he does, in fact, in that irritation touch at one presenting point the universal fluid pervading the whole body of his subject, and excites, not by special transmission, but by general disturbance of the equilibrium of the forces, a convulsion through the whole muscular organism. So, when with the intermittent current I galvanise a portion of the nervous tract, I produce convulsion, because I induce an alternation of force; at one moment allowing the natural equilibrium to establish itself; at the next moment disturbing it. So, when I continue the current without intermission, I virtually cut off altogether the included nervous tract from its system and cause paralysis of will, because I have cut off also communication with the brain; but I can, nevertheless, call into play at pleasure the excitability of the nerve-trunks below, as long as they continue to summon into their service blood for their nourishment and force-producing faculty.

If it were possible to entirely remove from the body every muscular fibre, and, leaving the nervous system entire, still to supply that system with blood and surround it with those conditions under which its blood could be applied, that nervous system would exist as a motionless intelligence. It might think, feel, and by virtue of its sensual organs appreciate and know the external world surrounding it; yet be incapable alike of act or of expression. On the other hand, if every particle of nerve-matter could be removed, the muscular system being left with its attachments to bone still secure, and its blood-current free; that muscular system would remain an unintelligential mechanism, having in itself its *vis insita*, but being incapable of exerting movement until brought into action and guided by the intelligential part of a more perfect animal.

By the combination of the two systems in the perfect organism we obtain, so long as the necessary conditions for life are supplied, the doubly endowed and self-acting body. An excitation of light refracted on the nervous expanse of the retina touches the pervading force, and the animal sees; but this light must be presented to the nerve-expanse, or, in other words, to the force that pervades the expanse, in such a way that the absolute physical picture shall be put upon it, or the picture will not be seen. It is not that the picture is to be carried to the brain, but that it is to be looked on at this point of the nervous expanse by the presiding force. A vibration is set up in a mere physical membrane, spread above another distribution of nerves, and the animal hears; it is not that anything is conveyed specially to the brain, but that the equilibrium of the pervading force is disturbed. An impression is made on the skin, and the animal feels; it is not that any current is conveyed to the brain, but that the impression disturbs the balance of the nerve-fluid throughout its universality. The impression made is slight, and it is pleasant, or not painful; it is severe, and it excites the whole animal body, so that the body writhes in agony, and may even die from the reflection of the impression upon the muscular fibre, and the resultant spasm."

The views expressed above, at the time when they were first enunciated, were based confessedly on general inferences. They were not sufficiently exact to satisfy the demands of strict science, and for that reason they were never unduly pressed on the attention of the Profession. At the same time they were, in the main, correct, and now, somewhat simplified, they stand firmly, I believe, on fair and rigid experiment.

For what are the facts which have here experimentally been brought to our notice? We have had before us a frog; we deprived it of all sensibility; we deprived it of all power of motion. How did we effect this? Simply and solely by the abstraction of the heat from its cerebro-spinal system. When the animal was thus reduced to inertia—when to all appearances it was dead—we saw its life fully restored. In what manner, under what condition, did this restoration become pronounced? There was only one condition—restoration of caloric. When we put these two great facts together, and when we couple them with the further fact that the animal has no means for producing any force except calorific force, we cannot, I think, escape the conclusion that animal force is caloric. With this we may admit—indeed, we must admit—that other correlatives, when brought to bear on the living body, can stir into temporary motion the organic structures; we must admit that light can set up motion from the eye to the brain; that the passage of an electric current can set up motion in muscle, and motion from any periphery of nerve to brain; that the vibration of air can convey motion by the ear to the sensorium, and that the motion of minute particles of organic matter may be communicated through the olfactory nerves back to the centres of those nerves. But these admissions do not interfere with the general truth that caloric is *the* force of life—that it is true and sufficient to explain all the phenomena of living motion

Before this curious experiment of producing inertia in a living animal by abstracting the caloric from its nervous centres, is allowed to pass from our thoughts, let me make one more reflection respecting it. The inert animal is either asleep, or it is dead. The terms sleep and death are, I know, relative, but as we must be guided by them, and as we know the animal can be restored, we are bound to say of it that it is not dead, but that it is as we are, when we are shut out, for a time, from the world—asleep. We let back then the force that has been taken away; as the force goes back, it loosens the hardened tissues, it enters the structures; it enters the nervous centres, it recharges them, and thereupon there is renewed motion. We learn, thus, that when these nerve-centres are reduced in force there is a powerless organism: we learn that so reduced the centres can again take up and again lay up force; we gather the truth that when the centres are once more replete with force they communicate the fact to the rest of the organs, and that the body therewith awakes. Of what is this the counterpart? I think it to be the counterpart of natural sleep. I take it that during sleep the exhausted brain, the exhausted nerve-cord, the exhausted nervous system, everywhere takes up and stores up caloric, and so continues to take up and store up until it is charged to its full capacity. Then, if I may use such expression, it overflows with force, it spontaneously fills the body, and there is presented that phenomenon of motion which we call "the awakening." Send other force, vibration from noise or mechanical motion, at any moment through a sleeping body, and you may, through a dynamic act, excite motion, and the body may awake; but by this you have not primed the body with the force it wants for sustained work; you passed a charge of force through it, but you did not charge it. So when my unwound watch is ceasing, I can stimulate it into movement for a moment or so by a moderate blow or shake; but the force is applied uselessly if the mainspring be not recharged.

The phenomenon of sleep and the phenomenon of awaking from sleep appear thus to me to have a simple and a rational explanation—an explanation purely physical in character, and which may be applied to the correct exposition of many of the phenomena of disease as well as of health.

(To be continued.)

Note.—I have to thank Dr. Edmunds for his excellent and very just criticism in the last number of the *Medical Times and Gazette*. The quotation he criticises is, from an error of expression, misleading. When a watch stops under cold, there is no molecular change in the spring causing the arrest. The arrest is from molecular obstruction to force, not from abstraction of force. The analogy would have been better omitted.

B. W. R.

Cattle Plague Inquiry.—For the week ending July 27, one fresh outbreak has been reported—viz., at Dampers Dock Marsh, in Essex. Two additional fresh outbreaks which occurred in the previous week have been reported since the date of the last return—viz., at Naphill-common, in Buckinghamshire, and in the Marylebone district of the metropolis. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,740, and 56,947 healthy cattle have been slaughtered to prevent the spread of the disease.

ORIGINAL COMMUNICATIONS.

NOTES ON THE HISTORY OF SYPHILIS.

By GEORGE GASKOIN,
Surgeon, Chevalier of the Order of Christ, etc.

No. III.

We shall make a few observations on the first voyage of Columbus in his path of discovery as material to the question of the importation of syphilis from Hayti. This voyage is best understood from the diary of the Admiral, but in this country unfortunately it is more often studied in the pages of Washington Irving, an author respectable and well-meaning, with much talent, but aiming, more than anything, at brilliancy of narrative. The details of the first expedition of Columbus are set out with some degree of particularity in the work of Dr. Bonifacio Montejo, to whom we owe nearly all the elucidation which this subject has received, and whose writings on syphilis are distinguished by many excellences. Columbus had three rickety vessels, and a crew of the worst character. He put into the Canaries to refit in his outward voyage, and here he shipped a few fresh hands. His single decked vessel underwent total wreck at Hayti, and in his distress he was temporarily divided from his other caravel, commanded by one of the Pinzons, and so remained for some time in contact with the natives, and dependent on their good offices. The diary relates that Columbus, on his return to Europe from the West, after a few fine days at starting, fell in with uninterruptedly wet weather, and then—if we may believe de Isla—his unsheltered crew began to be affected with symptoms of a new complaint, which racked the limbs and joints with terrible throes, and covered the skin with revolting and strange eruptions. *The first in whom this complaint showed itself was one of the brothers Pinzon, who sailed with Don Christopher as pilot;* (a) it then appeared in others of his companions.

It is well the reader should understand that the King of Portugal, jealous of his colonial discoveries, and positive in the assertion of his rights, had given orders to his officers abroad that the person of Columbus should be seized straightway at any time or place wherever he might be found. When, therefore, Columbus arrived in the Azores, as we say, on the tail of a storm, having narrowly escaped shipwreck, such an attempt was made on his person, but it only took effect on certain of his seamen, who, naked in their shirts, and barefooted, as penitents under a recent vow, were passing from the boat of their vessel to a chapel at no great distance from the shore. Columbus, fortunately, removed from their landing place with his boat, and so escaped to his vessel. He now spent some days tempest-tossed among the Azores, scarce water-tight and with a short-handed crew, till he got his men back again after three days' duress; he had no other communication with the islands, the state of the weather not permitting, and though he was short both of wood and water, when the weather cleared he sailed at once; altogether, he had remained beating about the Azores for the space of a week. Proceeding on his voyage, a raging tempest drove him into the bay of the Tagus, whence he addressed a deprecatory letter to the King of Portugal, and anchored straightway in the waters of Lisbon—not near the city, but at Rastelo, now Belem—in which spot he remained unmolested, in spite of some attempt at infringement of his rank and menace to seize his crew. On invitation from the king he visited that monarch at Valparaiso, eleven leagues distant, accompanied only by a pilot, and he experienced a generous reception. Columbus returned by Villafranca and Llandra straight to his bark (*para partir desde allí á su carabela*), not entering Lisbon at all. None of his men, as it would appear, were allowed to go on shore during their nine days' stay. They had received a sharp lesson at the Azores, and such leave could not with reason or discretion have been allowed by their commander. History records that a proposal was made to the King of Portugal to assassinate this great man—a proposition which was rejected, but which betrays the intensity of national spite. A letter from Columbus to the minister of his sovereigns at Barcelona was despatched by land, under date of March 4, and was replied to by them no sooner than on the 30th of the same month, with address to Seville. Columbus's companion ship touched at Bayonne, a paltry fishing village in Galicia, where it stayed, we may suppose, eight days, and subsequently entered the port of Palos at the same date as Columbus—March 15, 1493. If the great navigator nowhere in his diary or letters makes mention of syphilis, we must recollect that letters of his have perished, and but two remain to us; in these such mention might not have been appropriate to the hour in which he wrote or to the person he was addressing. In one of his letters he says of the natives, somewhat significantly, "they loved their neighbours as themselves." Columbus was an enthusiastic man, striving constantly against a tide of interest and prejudice. He had possibly blinded himself to the facts of the case, just as occurred with Captain Cook in the islands of his discovery. The natives of Hayti are described by another writer, the well-known Curate de los Palaci s, as delighting only in women and gluttony—*gente bestial* he calls them on this account—and there are national documents which show that their women were not very faithful to the marriage tie, such as it existed among them. Washington Irving says they were loving and compliant, prompt to form those connexions which anchor the most wandering heart. A man of the world like Oviedo could not be mistaken in the identity of the disorder; he travelled side by side with it all his life. even if he did not, as some have supposed, suffer from it himself. He was personally cognisant of its early ravages in Europe, and seems to have made it an object of study; and in the ten years that he was governor of the mines in Hayti, he surely would have matured his judgment or set himself right if in error. Since the last edition of his works the character of this author, it is certain, has risen higher than ever in Spain. "I had my information," he writes, "from many of those who sailed in the first expedition—among the rest, from Vicente Yanoz Pinzon, who was one of the first pilots of those brothers Pinzon of whom mention has been made, for I was in ties of friendship with him up to A.D. 1514, when he died; and also I had much information from one of the pilots, Herman Perez Matheos, *who is at present alive in this city*, and he was in the first and third voyage which the first Admiral Don Christopher Columbus made to the Indies; and also I heard many other things concerning this island from gentlemen of birth and education who bore a share in the second expedition, *who are now in this city*, as Juan de Royas and Alonso de Valencia, etc., etc., and, more than all, the Commander Mossen Pedro Marguerite, principal gentleman of the palace, and his Catholic Majesty held him in much esteem, etc., etc." (b)

The arguments of Diaz de Isla seem convincing to himself, and may perhaps succeed in convincing the reader. In describing the Indian mode of cure with the nicest particularity, he says: "And the first of all their rules is this—*that they keep themselves altogether from women for ten months*, and without this they hold that nothing can do them good;" and he has found this mode of cure by the woods "not so efficient with the Spaniards, as they are of a less delicate habit;" and after affirming that in the year 1503 he possessed, and *had in writing*, the whole method of cure as adopted by the Indians, both with guaiacum and the other woods, he says very justly: "How could this unlettered people arrive at such a systematised cure laid down in every minute particular if the disease had not been an old one among them? While here with us what do we see? Nothing as yet that has the stamp of regulation on it, either as regards mercury or the use of wine, or in regard of variety of temperament—no, neither among Moors nor Christians—in relation to this disease." (c)

The reproach that the Spanish writers were entirely silent as to the origin of syphilis in the island of Hayti for the space of thirty-five years after its importation, has been entirely removed by the researches of Dr. Bonifacio Montejo; but this is not the only valuable service he has rendered in syphilography. He has introduced us to the work of Francisco Lopez Villalobos, an author mentioned indeed by Hensler and Astruc, but with whose writings they had no acquaintance whatever. It would appear that but two copies of this work now exist in Spain—one in the Royal Library at Madrid, and another in private hands. It is written in verse of old Spanish dialect, "romance trovado." Its date of publication is in the year 1498. Villalobos was a student of Salamanca, and has dedicated his work to the Marquis of Astorga. Poet and Physician, he conceived the idea of writing a compendium of Medicine in verse, following the nosological method of Avicenna. In this work, called the "*Sumario de la Medecina*,"

(a) Diaz de Isla. See the second and following pages of the Codex, *op. cit.*

(b) Oviedo, *op. cit.* lib. ii. cap. xiii. p. 55, ed. Madrid, A.D. 1851.

(c) Diaz de Isla, *op. cit*, 39th half-page in the first, and 49th page in the second edition.

he has reserved a division, or rather appended a supplement, on the subject of syphilis, which he names "the pestiferous *bubas*."(d) The title is "*El Sumario de la Medecina, con un Tratado sobre las Pestiferas Bubas;*" whereas the division allotted to syphilis is headed "By the Licentiate Villalobos upon the *Contagious* (sic) *and Accursed Blains*: History and Medicine." What particularly strikes us in this work is that imposthumes (apostemas) and ulcers of the genitals are treated of in the body of the work quite apart from the section on syphilis, and side by side with sterility, satyriasis, gonorrhœa (urethral flux), hernia, and other local complaints. That affection of the genitals which he calls apostema is disjoined from the ulcer by the single interposition of hernia. "The apostema," he says, "we know it now, just as we have ever known it all along" (conosce se como los ante passados)—*i.e.*, before the advent of syphilis. And the treatment laid down is such as we derive from other works of the middle ages. If there is heat (inflammation), you must bleed, give detersive medicines, apply vinegar, or rose vinegar and water, bean flour, diacolon, and make use of the tent should it be necessary. If cold (non-inflammatory), bleeding will not be required—*i.e.*, in the ulcer or scab on the privates you go to work precisely "as if you had to deal with a like affection in the kidney or ulceration of the bladder"—*i.e.*, with cooling, cleansing, drying treatment. For local applications, a little camphor ointment, then litharge, or green ointment, or lotion, with decoction of aloes, tutty, or, in short, any desiccative applications.

SPASM OF THE GRAVID UTERUS.

By C. B. SUCKLING, M.D., M.R.C.S. Eng.
Senior-Surgeon Accoucheur, Queen's Hospital, Birmingham.

Lately a patient consulted me concerning her case, the history of which is as follows:—She was 35 years of age, and had had seven children, five of whom are living, the other two died in early life; all her labours had been natural, and her "gettings about" good. She was again pregnant, and had advanced as near as she could judge to the eighth month of gestation. Up to the seventh month her health had been uniformly good, but during the last week or two she had felt great uneasiness in the region of the uterus, which was more marked at night when she was in bed; it was attended by loss of appetite, depression of spirits, and great anxiety of mind, which she regarded as harbingers of impending evil. She was alarmed most by what she described as a "drawing" sensation in the abdomen, about the umbilicus, and she stated that at times there would quickly rise up a lump in it on one side, which would suddenly disappear, and rise up again on the other, and which was succeeded by a feeling of faintness, and despondency of mind. In answer to my questions she stated that she had no discharge from the vagina, no actual pain in or around the uterus, only the sense of uneasiness which made her very unhappy. There was no bearing-down effort, no impediment to the free passage of the urine and fæces; but she was occasionally annoyed by an itching and irritation of the anus, which she attributed—and justly so—to piles, and which were relieved by cooling saline purgatives. Her chief cause of complaint was the intolerable uneasiness of, and drawing sensation, and the erratic tumours in, the abdomen, for the relief of which she consulted me.

The "toucher" showed the os uteri patulous to the extent of three-quarters of an inch; its lips were soft and yielding; the child's head presented, the presentation could be diagnosed; there was no abnormal condition of the uterus, no prolapse, no obliquity, nor any deviation from its normal position at the eighth month of utero-gestation. This is a case which is described by Meigs under the name of "Alternate Hardening and Contraction of the Womb," and which he ascribes to the retentive and expulsive faculties of the uterus, which are oftentimes brought into action as the womb approaches near to its term of gestation. Another American writer on obstetrics has noticed a similar condition of the uterus more frequently occurring in primiparæ, and he speaks of it as the independent contraction of the uterus, accompanied by a bearing-down sensation so characteristic of true labour pains, but arising from the muscular irritability of the organ, and that they are to be regarded as simply preliminary to labour.

I cite this case to show that we are sometimes consulted about what may seem trifling ailments, and to urge that it is as necessary in Midwifery, as it is in Medicine and Surgery, not to treat them with indifference and neglect; for although they are not attended with danger to the mother, they may be hazardous to the child by inducing its premature birth; yet the sensations to which they give rise, and which are inexplicable to the patient, and alarm her, causing her to regard them as the precursors of something serious, may be explained and relieved, and her perturbed state of mind tranquillised.

This condition of the uterus should not be confounded with an irritable condition of that organ, with the movements of the fœtus *in utero*, or with true labour pains; the alternate hardening and softening of the uterus at certain places, and intervals of longer or shorter duration, are sufficiently diagnostic. For this patient I prescribed bromide of potassium in ten grain doses three times a day. The first dose gave relief, and after it had been taken four or five times, a feeling of comfort succeeded that of uneasiness, and the drawing sensation in the bowels disappeared. This remedial agent I have found of great efficacy in hysteria in its various phases, in several cases of aggravated chorea, and especially in epilepsy.

(d) *Anglice*, "blains."

A CASE OF

PUERPERAL CONVULSIONS SUCCESSFULLY TREATED BY CHLOROFORM AND INDUCTION OF PREMATURE LABOUR.

By WILLIAM HOLME, M.R.C.S., etc.

Happily for the patient as well as Practitioner, convulsions during pregnancy are not of common occurrence; when they do take place, they alarm the household and friends, are attended with great danger to mother as well as child, and demand from us our most careful, prompt, yet energetic treatment. I give it as briefly as possible, and without remark. I hope it may be sufficiently interesting to warrant its insertion in your pages.

April 16, 1866.—During the night I was requested to visit Mrs. P., who resided about five miles away in the country. I went, and found my patient a slender, spare, and most excitable woman; she was the mother of six children, and was again advanced to the seventh month of pregnancy. From the attendants I learned she had had what appeared to me to resemble a fit of hysterical excitement; it had come on suddenly without any warning beyond slight headache and irritability of temper the previous day. She was now partially recovered, and was lying in a semi-comatose state. On rousing her she became very excitable, sobbing, and tearing her hair. Pupils natural; pulse 100; bowels rather confined; tongue clean; no swelling of legs or puffiness of eyelids. Never experienced anything similar before, and has always enjoyed good health. Ordered a large assafœtida enema, a mixture of valerian, and cold applications to the head.

17th.—Was again summoned to see her, when I had an opportunity of witnessing several attacks of genuine convulsions, during which the tongue was severely bitten. I took about 8 oz. of blood from the arm, gave a couple of drops of croton oil, and administered another enema. Bowels acted freely, but convulsions, which had now become frequent, continued unabated. On examining the urine, I found it scanty, high-coloured, and loaded with albumen, doubtless caused by the pressure of gravid uterus upon renal vessels. Ordered to be enveloped in wet blanket, and a sudorific mixture given every two hours. Chloroform was administered during the fits, which were much relieved, but directly it was withdrawn, they reappeared with usual severity.

18th.—About the same; chloroform steadily continued.

19th.—Fits continue, and the patient obliged to be kept more fully under the influence of chloroform; pulse quicker and more feeble; fœtal heart distinct, yet weaker; os uteri high and closed; no symptoms of labour present; urine albuminous and scanty. 10 o'clock p.m.: As she had taken little or no food since my first visit, and symptoms of exhaustion were setting in, it was evident she could not long survive unless relieved; the fœtal circulation was also failing. I determined to try to induce premature labour, and endeavour to save both mother and child. The patient being fully under the influence of chloroform, a gum elastic male catheter was introduced into

the uterus, several ounces of liquor amnii escaping; catheter retained *in situ* by means of tapes, &c.

20th.—4 o'clock a.m.: Labour pains set in; os uteri dilating; presentation natural. At 10 o'clock a.m., delivered of a living seven months male child. Convulsions less frequent. Chloroform withdrawn, and only ordered if an attack came on.

21st.—More rational; not had any chloroform since delivery. Urine increased in quantity and less albuminous; aperient ordered.

22nd.—Improving. Less albumen.

25th.—Mother and child doing well. No albumen in water. Tonic mixture ordered.

May 22.—Quinine mixture given; patient discharged.

July 1, 1867.—Mother and child quite well.

Cleator-lodge, Windermere.

RADICAL CURE OF INGUINAL HERNIA IN A CHILD.

By J. FAYRER, M.D.,

Senior-Surgeon, Medical College Hospital, Calcutta.

A Hindoo boy, named Shookra S., aged 3½ years, was admitted on April 26, 1867, with a large scrotal hernia on the left side, which was probably congenital. The tumour was as large as an orange, and protruded directly the child stood up or cried—in fact, it was nearly always down. The external ring was large enough to admit the forefinger, and the hernia was easily reduced when the child was not crying. The father, who accompanied the child, was a common peasant, and unable to give any satisfactory history of the case. The child was very small for its age, but healthy.

On April 30 I operated by introducing a wooden plug, thus invaginating the scrotum into the inguinal canal. This was secured by two silk ligatures, which were introduced separately, perforating the abdominal wall near the internal ring a little apart, but, emerging through the same aperture in the integument, were firmly knotted over a small piece of wood, thus securing the plug, to the apex of which they were attached, firmly in the inguinal canal, the end of the plug pressing against the internal ring. The operation was performed under the influence of chloroform, as without it it was impossible to keep the child quiet. As the needle perforated the abdominal wall, a quantity of clear fluid escaped, showing that the peritoneum had probably been punctured, as there was no hydrocele. The child was feverish and restless on the following two days; on the third day slight erysipelas of the integument of the abdomen set in, and I removed the plug by cutting the ligatures. A quantity of pus, confined by the outer piece of wood, round which the ligatures were knotted, made its escape. The wound being sponged, a pad and spica bandage were applied. The erysipelatous blush was painted with a solution of nitrate of silver; an aperient and then some quinine and iron, were administered.

May 5.—The child is doing well; erysipelas gone; free suppuration. The opening appears to be perfectly occluded, for when the child cries no hernia protrudes, and the inguinal canal is filled with a dense cord.

12.—Discharge has nearly ceased; wound cicatrising. The hernia does not come down, though the child cries vigorously.

20.—The child is quite well; the wound healed. The hernia does not descend, though he runs about the ward without any support, and cries loudly when he is examined. The opening through which the hernia protruded appears to be perfectly closed. The child is in excellent health, and about to be removed by the father, who is anxious to go home, much pleased with the result.

Remarks.—This is the first case in which I have operated on an infant, and I do not know what the experience of other Surgeons has been in similar cases. It appears to prove satisfactorily that the hernia may be radically cured, for in this case there were many difficulties in the way, but still it was accomplished. The constant struggling and crying of the patient were very trying, and amply tested the firmness of the barrier set up against the protrusion. In the case of this peasant child it offered the only probability of curing the disease, for it was in the last degree improbable that trusses could either have been procured or worn in the remote village whencehe wa brought to Calcutta.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

REPORT ON THE AMPUTATIONS OF THE THIGH AND LEG

WHICH HAVE OCCURRED IN THE PRINCIPAL LONDON HOSPITALS DURING THE YEAR 1866.

We have on several occasions in the pages of our journal, given statistical reports of amputations, and when so much has been done lately, both in London and in the country, in the matter of improved hygienic precautions, and in "conservatism" in the treatment of cases in which the question of amputation arises, it would seem now advisable to collect and record a series of such cases—as, for instance, those which have occurred during the past year. We contrast these cases in our present report with those which have occurred in the village Hospitals, which are now, we rejoice to see, being so universally established. With regard to Hospitals situated in London, it will be remarked that in certain of them, from their position, either in manufacturing districts or in those where there is comparatively less chance of accidents happening, the number of cases varies greatly. To make any general ratio would be impossible, for the Hospital, its locality (and, therefore, the nature of its cases), and the character of the neighbourhood in which it is situated, would alter such inferences materially. Compare, for instance, the London with St. George's; the former situated in a most densely populated, unhealthy locality, constantly being supplied with formidable accidents by the neighbouring docks and manufactories; and the latter, situated in the most healthy part of the metropolis, and where probably comparatively few of those fearful cases of injury or accident are admitted, which we meet with so frequently at the former.

The object of our present report, however, is not so much to enter into the subject of mortality, after amputation of the thigh and leg, as to compare, if possible, the mortality of our chief London Hospitals with that of the Cottage Hospitals.

We regret that the returns from so many Hospitals have not been forwarded to us, and we may remark here that from those Hospitals where a uniform system of registering and recording the cases admitted exists, there has been no difficulty in obtaining statistical reports, and were the system more general and uniform, the better for the Profession, and more for the benefit of Surgery. We, however, proceed to lay before our readers such cases as we have been enabled, by the kindness of the various Hospital registrars, to collect.

GUY'S HOSPITAL.

Amputations for Injury.

Primary Amputation of the Thigh.—2 cases, both for compound fracture, smash, and laceration; 1 died of pleurisy.

Secondary Amputation of the Thigh.—2 cases, for compound fracture and ruptured artery; 1 died of pyæmia.

Primary Amputation at Knee for compound fracture, smash, and laceration; 1 case, which recovered.

Secondary Amputation at Knee for compound fracture and gangrene; 1 case, which died of asthenia.

Primary Amputation of Leg for compound fracture, smash, and laceration: 6 cases, 5 died; 3 from pyæmia. Ditto of both legs, 1 case, which recovered.

Secondary Amputation of the Leg.—2 cases; 1 died from pyæmia.

Amputation for Disease.

Of the Thigh.—10 cases, 7 of which were for diseased knee, and 3 necrosis and abscess; of these, 1 died from pyæmia.

Of the Leg.—6 cases; 1 for enchondroma, 1 for cancer, 1 for atrophy, 2 for chronic ulcer, 1 for diseased ankle; of these, 1 died from pyæmia.

ST. THOMAS'S HOSPITAL.

Amputation of Thigh.

Primary.—Male, aged 12, cured in 130 days, for compound fracture of leg. Male, aged 23, died in 17 days, for compound fracture of leg, with torn artery and severe laceration; died of suppuration in pelvis from fracture of symphysis pubis.

Secondary.—Male, aged 33, cured in 63 days, for compound comminuted fracture of leg 73 days before; exhaustive suppuration; delirium tremens.

For Disease.—Male, aged 25, cured in 58 days, for necrosis of femur, with separation of epiphysis. Female, aged 21, cured in 71 days, for encephaloid of femur, with separation of epiphysis; went out with stump well healed; but disease recurred, and femur amputated at hip-joint. Female, aged 23, cured in 84 days, for myeloid of tibia; necrosis of ring of bone after amputation.

Amputation of Leg.

Primary.—Male, aged 21, cured in 79 days, for compound fracture of leg; secondary hæmorrhage. Male, aged 9, cured in 86 days, for compound comminuted fracture of tibia; necrosis of ring of bone.

Secondary.—Male, aged 33, died in 11 days, for compound comminuted fracture of leg 27 days before; exhaustive suppuration; pyæmia seventh day after operation. Male, aged 31, died in 14 days, for compound comminuted fracture of leg 37 days before; exhaustive suppuration; pyæmia (?); no post-mortem.

ST. BARTHOLOMEW'S HOSPITAL.

Amputations for Injury of the Thigh.

Primary.—None.

Secondary.—4 cases, 2 of which died, 1 of inflammation of the respiratory organs, and 1 from diffuse cellulitis.

Amputation of the Leg.

Primary.—4 cases, 1 of which died.

Secondary.—2 cases; 1 died from secondary hæmorrhage.

Amputations for Disease.

Of the Thigh.—4 cases; 1 died of erysipelas.

Of the Leg.—3 cases; 2 died, 1 of erysipelas, and 1 from pyæmia.

THE LONDON HOSPITAL.

Amputations for Injury.

Of the Thigh.—There were 9 cases, of which 1 was for compound fracture of the femur, opening into the joint; 5 for compound fracture of the tibia and fibula, with severe laceration; 1 for dislocation of the knee; 1 for compound fracture of the fibula; and 1 for severe laceration of the leg. Of these, 7 died, 4 of them from pyæmia, 1 from phlegmonous erysipelas, 1 from exhaustion, 1 not stated.

Of the Leg.—There were 7 cases for compound comminuted fracture of the leg, with laceration, and of these 6 died, of which 4 died from exhaustion, 1 from pyæmia, and 1 from secondary hæmorrhage.

Amputations for Disease.

Of the Thigh.—There were 10 cases. These consisted of 8 cases of diseased knee-joint, 1 of malignant tumour of the calf, and 1 of suppurating aneurismal sac. There were 6 deaths, 4 from pyæmia, 1 from exhaustion, and 1 not stated.

Of the Leg.—3 cases; 1 of diseased ankle-joint, 1 of chronic ulcer, and 1 of epithelioma of integument. These all died; 2 from secondary hæmorrhage, 1 not stated.

ST. GEORGE'S HOSPITAL.

Amputations for Injury.

Of the Thigh.—1 for osteo-myelitis after compound fracture; recovered.

Of the Leg.—3 cases for compound comminuted fracture, in case of both legs. All died; 1 from pyæmia, 1 from exhaustion, 1 from secondary hæmorrhage.

Amputations for Disease.

Of the Thigh.—There were 9 cases. Of these 7 were for disease of the knee-joint (of different forms), 1 for diffuse cellular inflammation after delivery, and 1 for epithelioma of the leg. The deaths were 4 in number, 2 from pyæmia, 1 from exhaustion, 1 from mania, never rallied.

Of the Leg.—4 cases; 1 for epithelioma of leg, 1 for caries of tarsus, 1 for struma of tarsus, 1 for abscess in tibia, opening into ankle-joint. Of these 1 died from exhaustion.

ST. MARY'S HOSPITAL.

Amputations for Injury.

Of the Thigh.—3 cases for compound fracture of the leg and thigh; of these 2 died.

Of the Leg.—6 cases; of which 2 died.

Amputation for Disease.

Of the Thigh.—3 cases; 1 died. The case which died was for necrosis of femur following idiopathic periostitis.

Of the Leg.—3 cases, of which 1 died.

KING'S COLLEGE HOSPITAL.

Amputations for Injury.

Of the Thigh.—1 case, disorganisation of knee-joint following injury, which recovered.

Of the Leg.—None.

Amputations for Disease.

Of the Thigh.—3 cases. Of these 2 were for total disorganisation of the knee-joint, and one for gangrene of the leg. Of these one died from shock, and one from pyæmia.

Of the Leg.—None.

It will be seen that in the seven Hospitals—Guy's, St. Thomas's, King's College, St. George's, St. Mary's, the London, and St. Bartholomew's—there have been 67 cases of amputation of the thigh, and of these 25 were for injury, and 42 for disease. Out of the 25 amputations for injury, 14 died, or 56 per cent.; and out of the 42 for disease, 15 died, or 35·7 per cent.

The amputation of the leg were, in all, 56 cases, of which 31 were for injury, and 25 for disease. Out of the 31 for injury, 20 died, or 64·5 per cent.; and out of the 25 for disease, 8 died, or 32 per cent. This may be compared with a table, published in the *Medical Times and Gazette* some years back, of the amputations of the leg and thigh for injury and disease in the London and provincial Hospitals during three years, which was as follows:—

Seat.	Injury.			Disease.		
	Cases.	Deaths.	Per cent.	Cases.	Deaths.	Per cent.
Thigh . .	90	55	61	303	71	23·4
Leg. . .	110	44	40	137	35	25·5

In the seven London Hospitals above named, for the year 1856:—

Seat.	Injury.			Disease.		
	Cases.	Deaths.	Per cent.	Cases.	Deaths.	Per cent.
Thigh . .	25	14	56	42	15	35·7
Leg. . .	31	20	64·5	25	8	32

From which it will be seen that the aggregate percentage of these seven London Hospitals was higher in 1866 than the aggregate percentage of those London and provincial Hospitals which formed the subject of the statistical report in the three years alluded to above. We wish, however, to contrast them with statistical returns, as far as we have been enabled to obtain them from the Cottage Hospitals distributed through the provinces.

COTTAGE HOSPITALS.

It is now eight years since The Cottage Hospital system was first commenced, and it is time to place before the Profession some account of the work that has been done. The main principles have beeen explained by Mr. Napper, of Cranley, in a pamphlet, and that gentleman is also about to communicate the result of his experience to the British Medical Association.

The main points, as I apprehend them, are these. 1st, the obvious one, that a small Hospital with perhaps half a dozen beds can be managed at a small expense, and yet be sufficient for the locality. Some supporters of the Cottage Hospital have gone much further than this; and say that patients in separate rooms, or rooms with not more than four beds, are more likely to recover than patients in the wards of a General Hospital, and that the mere fact of congregating a number of sick or wounded under one roof, or in one ward, is of itself injurious in more ways than one; that special diseases are generated which add greatly to the mortality of large Hospitals, as erysipelas and pyæmia; that the effect of seeing so many sick and injured persons in the room is especially depressing, particularly when many deaths occur; and that in a small Hospital the nursing is more easily managed and therefore better carried out.

I have now before me the reports of Cottage Hospitals extending over a period of eight years, and think it will be useful to give a history of the first Hospital (Middlesborough), from its commencement with an examination of the reports.

The Middlesborough Hospital was commenced in the spring of 1859 by a lady, who took three cottages and fitted them up as an Hospital. The admission of Surgical cases was the essential feature, though in the progress of the Hospital Medical cases crept in, partly through their urgency and partly from the fact of there being spare beds at the moment of application. Patients are admitted without letter or recommendation from a subscriber—the nature of the case is justly considered the best recommendation.

The nursing is conducted by ladies who give their services from no other motive than the desire of doing good. These ladies are members of the Church of England, and are associated together as a sisterhood for purposes of charity.

In the admission of patients no regard is paid to their religious opinion; all are freely admitted, and the Medical officer alone exerts any power of selection; ministers of every denomination are admitted to visit their own sick. The officers of the Cottage Hospital are all unpaid, except the Surgeon. This is a remarkable deviation from the ordinary practice of Hospitals, where everybody connected with them is liberally paid, except those who do the most important work —viz., the Medical officers.

An analysis of the reports will give us a fair idea of the work performed. Thus, in the first year, 1859, the total number of cases was 55, all Surgical, made up of—

	Cured.	Died.	Total.
Amputations	6	1	7
Fracture of limbs	13	..	13
Bruises and scalds	20	..	20
Concussion of brain and spine	..	1	1
Fracture of skull	1	1	2
Tumours, abscesses, etc.	12	..	12
	52	3	55

In 1860:		Deaths.
Surgical	52	2
Medical	4	2
Total	56	4

1861:		Deaths.
Medical	28	..
Surgical	52	4
Total	80	4

1862:		Deaths.
Medical	17	3
Surgical	71	6
Total	88	9

1863:		Deaths.
Medical	8	1
Surgical	65	4
Total	73	5

1864:		Deaths.
Medical	17	2
Surgical	82	2
Total	99	4

1865:

Total number of cases 103
Deaths . . . 5

1866:		Deaths.
Medical	44	4
Surgical	105	4
Total	149	8

Total number of Surgical cases, 482; deaths, 28.

The Medical cases, be it observed, do not present any materials for comparison with the general death-rate in other Hospitals, as they are few in number and admitted simply on account of exceptional severity. In 482 cases of every variety of Surgical importance, there were 28 deaths, or about 6 per cent., corresponding almost exactly to the death-rate of London Hospitals, which is 65 per 1000.

The Walsall Cottage Hospital was established in avowed imitation of the Middlesborough, and opened October, 1863. It is managed in a similar manner to the Middlesborough as to admission of patients, unpaid nursing &c.

1864: Surgical cases	79	1866:	
Deaths	9	Surgical cases	114
1865: Surgical cases	167	Deaths	4
Deaths	4		

In the three years there were 360 cases treated in the Hospital, and there were 17 deaths, about 5 per cent. Three cases of erysipelas at Middlesborough, and one case of erysipelas at Walsall are mentioned; so that, taking the two Hospitals, we have 842 Surgical cases in eight years, with only 4 cases of erysipelas, none fatal, and not a single case of pyæmia.

At Darlington there were treated in one year, 36 Surgical and 9 Medical cases, 4 died.

At Cranley, from October, 1859 to 1863:—

Medical cases	24	Surgical cases	76
Deaths	2	Deaths	4

The total number of Surgical cases:—

		Died.
Middlesborough (a)	482	28
Walsall	360	17
Cranley	76	4
	918	49

Erysipelas 4 cases, no death. Pyæmia none.

(a) The year 1865 is omitted, as the report does not distinguish the number of Medical and Surgical cases.

It would be very useful to make a comparison of the results of Surgical operations in Cottage and General Hospitals, but the reports which I have received do not contain sufficiently precise information. Dr. Burton, of Walsall, has very kindly sent me the following table of amputations performed by Mr. J. Burton at the Cottage Hospital, Walsall.

	Seat.	Disease.	Nature of Injury.	Primary.	Secondary.	Result.
1.	Below knee	..	Compound fracture	..	Yes	Cured.
2.	Do.	..	Sloughing, after previous amputation	..	Yes	Cured.
3.	Humerus, upper 3rd	..	Compound fracture	..	Yes	Died.
4.	Femur, upper 3rd	Knee-joint	..	..	Yes	Cured.
5.	Femur, do.	Do.	..	..	Yes	Died.
6.	Do. do.	Do.	..	..	Yes	Cured.
7.	Tibia	..	Compound fracture	..	Yes	Cured.
8.	Femur, middle	..	Do. (railway smash)	Yes	..	Died.
9.	Femur	Knee-joint	..	..	Yes	Cured.
10.	Humerus, upper 3rd	..	Compound fracture	Yes	..	Cured.
11.	Fore-arm	..	Do. (railway smash)	Yes	..	Cured.
12.	Do.	..	Compound fracture	Yes	..	Cured.
13.	Do.	..	Accident in saw mill	Yes	..	Cured.

It will be seen that of 5 primary amputations rendered necessary by injuries, 1 died. Of 4 amputations of the femur for disease of knee-joint, 1 died. Of 4 secondary amputations after injuries, 1 died.

The number of cases is too small to be the foundation of any comparison between the results of operations in Cottage and other Hospitals. At Cranley, in Surrey, the following amputations:—

	Cause.	Disease.	Primary.	Secondary.	Result.
1. Thigh	Injury	..	Yes	..	Cured.
2. Arm	..	Cancer	..	Yes	Died.
3. Thigh	..	Cancer	..	Yes	Cured.
4. Arm	Injury	..	Yes	..	Died.

At Middlesborough, the total number of amputations (that is capital operations), is 20; of which 5 died, and at Darlington 2, of which none died.

The gross number of amputations stands thus:—

		Died.
Middlesborough	20	5
Darlington	2	0
Cranley	4	2
	26	7

Considering how much has been said and written about the injurious influence of congregating a number of patients in a ward, it is satisfactory to the large Hospitals to find that in a number of Surgical cases, 818, treated in Cottage Hospitals over a period of eight years the death rate is almost identical with that of the Metropolitan Hospitals.

With regard to the principle of the patients paying a weekly sum, which is made a great feature in Mr. Napper's scheme, I do not observe any mention of it in the reports of the Middlesborough or Walsall Hospitals, and conclude that it is not followed out.

In conclusion, Cottage Hospitals seem to me to be eminently adapted to small places, where there is neither money to support or patients to fill a large Hospital; but I cannot, from the evidence before me, see that there is any particular superiority in the system so as to place it in rivalry with the present Hospitals. The legitimate place for Cottage Hospitals is in counties, in villages, and thinly populated districts, while large towns should be supplied with Infirmaries in correspondence with their size. As for London, the great increase

of what will in fact be Hospital accommodation caused by Mr. Hardy's Bill, will go far to make the present Hospital accommodation sufficient for years to come.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 64.)

We have been requested to state that these cases include all of Mr. Wells's *Hospital* cases in regular order. The total number of his cases in private and Hospital practice amounts (July 30) to 224. In the first 100 cases the deaths were 34; in the second 100, 28; and of the 24 cases from 200 to 224 only 3 have died.

Case 90.—*Adherent Multilocular Cyst—Organic Disease of Heart—Ovariotomy—Recovery.*

A married woman, from Manchester, 29 years old, was admitted April 2, 1867, having been sent to Mr. Wells by Mr. Gregory, of Rusholme. She had been married ten years, but had never been pregnant. The whole abdomen was filled by a multilocular ovarian cyst. The heart was displaced upwards, the apex being felt in the fourth intercostal space. The second sound was prolonged, with a loud murmur. Dr. Jenner examined the heart, and although he detected mitral regurgitation and hypertrophy of the right ventricle, he thought the state of the heart need not interfere with ovariotomy. The uterus was healthy and movable, and apparently independent of the ovarian tumour, which could, however, be felt to the right and in front of the uterus. The catamenia had been regular until the summer of 1866. Then there was some constant uterine hæmorrhage for two months. Then she was regular till Christmas, and since that time had "seen nothing." The catamenia had always been preceded by great pain. The tumour was first noticed four years ago in the left side far back; but for two years it was painless, and caused no inconvenience. Then it began to increase, but no pain was felt till June, 1866. Then the metrorrhagia and pain in the left side persisted for two months. Ovariotomy was performed on May 8. Dr. Junker administered a mixture of chloroform and ether, instead of chloroform alone, on account of the state of the heart. An incision five inches long below the umbilicus was carried through a very œdematous abdominal wall. About a pint of clear serum escaped from the peritoneal cavity. Some extensive and rather vascular adhesions were broken down by the hand. The tumour was tapped; and, after a few pints of fluid had escaped, the rest of the tumour was broken up inside, some masses of colloid matter pressed out, and the whole tumour was withdrawn. A pedicle, two inches broad, containing some very large veins, was secured in a clamp, which was kept outside without any pull on the uterus. There was a little oozing of blood from the torn adhesions, and about three to four ounces of clot were sponged from the peritoneal cavity. The left ovary was rather large, but healthy.

The fluid removed measured thirty-four pints, the portion of the tumour removed entire weighed four pounds nine ounces.

The progress after operation was most satisfactory. There was no sickness. Four small opiates were given during the first two days. On the third day she had a liquid motion, and on the fourth there was some diarrhœa. On this day the stitches were removed, and on the fifth day the diarrhœa ceased. Until the bowels acted, the pulse, respiration, and temperature had all been raised; but after the diarrhœa they all fell nearly to the normal standard. The clamp was removed on the seventh day. On June 14 the patient went to the Eastbourne Convalescent Hospital, and, after three weeks there, went home to Manchester in excellent health. The heart had returned to its normal position; but the murmur persisted, although there were no general signs of any cardiac disorder.

Case 91.—*Free Multilocular Cyst, never Tapped—Ovariotomy—Recovery.*

A married woman, 53 years of age, went from Somersetshire, in May, 1867, to consult Dr. Budd, of Clifton, by whom she was sent to Mr. Wells. She had been married thirty years, and had ten children. The catamenia ceased when she was 46. Some increase in size was noticed in the autumn of 1866, but no tumour was discovered till Christmas. On admission it was found that a free multilocular cyst filled the abdomen, a large cyst being detected on the left side, and smaller ones to the right. On the left some crepitus was felt, as of attached omentum. The uterus was normal and free.

Ovariotomy was performed on May 23. The tumour was emptied and removed through an incision five inches long, and a piece of adhering omentum was separated. The pedicle was secured in a middle-sized clamp about two inches from the right side of the uterus, without including the Fallopian tube. The left ovary was healthy. Four ligatures of fine silk were applied to bleeding omental vessels, and returned with the omentum. Twelve pints of fluid and two pounds seven ounces of solid matter were removed.

Recovery was uninterrupted There was no sickness, and very little pain. The pulse and temperature only reached 100, and that on the fourth day, when the stitches were removed. After this, they fell to the normal standard. The clamp was removed on the eleventh day. A little oozing from the surface of the pedicle was stopped by perchloride of iron. The patient returned to Somersetshire twenty-four days after operation.

Case 92.—*Free Unilocular Cyst—Ovariotomy—Recovery.*

A widow, 33 years of age, mother of two children, the youngest 9 years old, was admitted May 25, 1867. The abdomen was greatly distended by an ovarian cyst, which appeared to be free and unilocular. The girth was 59 inches. Measurement from umbilicus to sternum 18 inches, to pubes 8½, to right ilium 17½, and to left 20 inches. The uterus was normal; the catamenia regular. The disease began four years ago by pain in the right side, followed by swelling, which increased slowly for a year, and then rapidly, till the girth was 48 inches. She had been in the Westminster Hospital under Dr. F. Bird for some time, and afterwards attended about two years as an out-patient, slowly increasing in size. She had never been tapped.

The catamenia having appeared on May 26, and ceased on June 1, ovariotomy was performed on June 5. An incision four inches long was made through the skin and linea alba, commencing four inches below the umbilicus. The cyst was then tapped and emptied before opening the peritoneum. Fifty-two pints of fluid escaped. Then the peritoneum was opened for hardly two inches, and an empty non-adhering cyst drawn out with great ease. The peritoneum and transversalis fascia were both very thick. A broad thin pedicle was secured in the smallest size clamp, about two inches from the left side of the uterus; scarcely any blood was lost. The right ovary was healthy. The cyst proved to be really unilocular—no doubt an enormously enlarged Graafian vesicle—the remainder of the otherwise healthy ovary lying close to the insertion of the pedicle. It presented the normal arrangement of stroma, Graafian vesicles with ova, corpora lutea, and one vesicle recently burst with a small clot of blood still unabsorbed. This is of some interest as explanatory of the fact that ovulation may go on regularly in an ovary, part of which is enlarged into a cyst.

There was some pain, and reaction in excess, with some sickness for two days after operation, the temperature rising to 102·4°, and the pulse to 120; but only three opiates were required, and relief followed metrostaxis, which commenced on the third and continued during the fourth and fifth days. The stitches were removed on the sixth day. Some purulent discharge escaped from the upper angle of the united incision, and continued for several days. The bowels acted on the tenth day, and the clamp came off on the twelfth. For ten days she was recovering rapidly, when, after two or three days of feverishness, loss of appetite, and a rise of pulse to 110, a free discharge of sero-purulent fluid came from the lower end of the wound, and was followed by relief. The discharge persisted for several days, but gradually ceased, and the patient gained flesh and strength rapidly. The contracted cicatrix appeared scarcely larger than a second umbilicus; the abdominal wall near it was very firm. It appeared to Mr. Wells that after the very great distension it had not contracted as usual (probably from the great thickening of the peritoneum and fascia noticed during the operation), but had fallen together in folds, and the peritoneal surfaces of folds lying in apposition had adhered together, giving additional thickness to the abdominal wall. Some superficial suppuration led to an unusually long stay in Hospital, but the patient left July 24 in excellent health.

Case 93.—Large Adherent Cyst—Twice Tapped—Ovariotomy —Recovery.

A married woman, from Bagshot, 52 years of age, was sent by Sir James Clark to Mr. Wells, and admitted June 15, 1867. She had been married thirty years, and had ten children, the youngest four years and a half old. The catamenia ceased four years ago. Although she had only been tapped a month before admission, when forty pints of fluid were removed by Dr. Hunt, of Bagshot, she had refilled so rapidly that the girth at the umbilicus was forty-one inches, the distance from sternum to pubes twenty inches, and from one anterior-superior spine of ilium to the other across the front of the abdomen twenty-two inches. The first tapping was three years and a half ago, and increase had been very slow after that. No very accurate account could be obtained of the early history of the disease; but there seems to have been a cyst slowly increasing for at least fourteen, and probably about eighteen, years past. The uterus was normal, and no part of the tumour could be felt by the vagina.

Ovariotomy was performed on June 19, 1867. An incision, four inches long, was made downwards from midway between umbilicus and pubes, and a closely adhering cyst was opened and emptied of all the fluid it contained (about sixteen pints) before any adhesions were separated. Then some firm and extensive parietal adhesions were broken down, and the empty cyst drawn out. The pedicle was secured in a middle-sized clamp, and kept out with some little traction. There was scarcely any blood lost, only a little oozing from the site of the separated adhesions. The left ovary and uterus were both atrophied.

Recovery was uninterrupted. Some pain led to three small opiates being injected during the first thirty-six hours after operation, but there was no sickness. The highest temperature reached was 99·8°, the highest pulse 92; and pulse, respiration, and temperature all maintained the normal standard after the stitches were removed on the third day. The clamp came off on the ninth day; and the patient left the Hospital in good health twenty-seven days after operation.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, AUGUST 3, 1867.

THE GROWTH OF INSANITY.

The almost simultaneous appearance of three blue books, embodying reports from the Lunacy Commissioners of England, Scotland, and Ireland, enables us to present in one view the statistics—such as they are—of insanity in the United Kingdom down to very recent dates.

On January 1 in the current year there were in the 171 public and private institutions for the reception of the insane in England and Wales 31,914 patients, in addition to 10,307 pauper lunatics in workhouses, and 6861 patients lodged singly in the charge of relatives and others. Altogether, then, the total amount of insanity and imbecility over which the English Commissioners now exercise powers of supervision embraces 49,082 persons, of whom 22,365 are males, and 26,717 females; 6139 of the aggregate of patients are supported from private resources, the remaining 42,943 are paupers whose maintenance is at the public charge. From the facts given we deduce an increase of private patients since 1857 of about 27 per cent., while pauper insanity has increased 48 per cent., the augmentation of both classes of patients being equivalent to about 45 per cent. With so great an addition year by year to the number especially of pauper patients brought under supervision, it is not surprising that, notwithstanding the large extension of accommodation which has been successively provided, the pressure for further space is most urgent in many places, and projects either for enlargement of present institutions or the erection of additional ones form a large item in the details of the Commissioners' Report. In some counties the asylums are quite full, and in others the number of patients is in excess of the proper accommodation. In fact, the total number of vacant beds in asylums in England and Wales, on January 1 last, was only 1417, which would be almost fully absorbed if the 1250 pauper patients maintained in the various provincial and metropolitan licensed houses were transferred to the asylums. One of the saddest features in these lunacy statistics is the large proportion of cases returned as probably incurable. Of 24,748 pauper patients in English public asylums, only 2491—10 per cent. —were considered as offering any hope of recovery; the remaining 22,257 incurable cases comprised 1775 congenital idiots or imbeciles, 9803 imbeciles or demented, but not from birth or infancy, and 10,679 other forms of mental unsoundness; 14,620 incurables were "excited, violent, or dangerous," and 7637 "quiet and harmless" (of whom 783 were epileptics).

It is much to be regretted that the Commissioners are so chary with their statistics that they do not attempt to show whether the proportion of incurable or chronic cases is increasing (as some have affirmed) or not, nor whether the mean term of treatment is lengthening or otherwise; yet these are essential to a right understanding, whether the growth of recognised insanity amongst us is real or apparent only, and in either case they would help us to see more clearly than is now possible whether our present system of treating the malady in large buildings containing hundreds of patients is the best that can be devised. The Commissioners do not hesitate to question the advisability of further extending the Scotch single-patient system within their jurisdiction; but as regards the more quiet and trustworthy of the chronic cases they recommend the provision of special buildings of a simple style, intermediate in character between a workhouse and an asylum, and consisting chiefly of cheerful, spacious, and well-ventilated day-rooms and dormitories, which might be constructed at a comparatively moderate cost.

The Scotch Lunacy Commissioners, owing to some difficulty about getting returns from the inspectors of poor, are unable to bring down their general statistics to a later date than January 1, 1866, at which date they were concerned in the supervision of 6662 lunatics, of whom 3267 were in public and district asylums, 812 in private asylums, 1008 in parochial asylums and lunatic wards of poorhouses, and 1589 in private dwellings. On January 1, 1858, the number of lunatics officially known was 5774; hence the increase during eight years was at the rate of 15½ per cent., the private patients increased 9 per cent., and the paupers 16 per cent. The number of private patients annually brought under cognisance is more than one-third of the corresponding number of pauper patients; the recoveries are nearly in the same ratio, but the proportion of private patients removed from the registers unrecovered is so much higher than that of pauper patients as to account for the fact that the accumulation in establishments goes on at a rate three times as great for pauper patients as for private. The relative tendency of males and females to insanity, as determined from the number of private patients resident in asylums, is, on an average of nine years, as 100 to 102·4; but when calculated on the numbers sent to asylums, it is as 100 to 104. The comparison in both cases

admits only of modified, and not absolute, acceptance. Among pauper lunatics the relative proportion of males and females was, on an average of the last four years, as 100 to 117. The amount of pauperism and pauper lunacy, which has fluctuated greatly in the several counties of Scotland, has nevertheless, for the whole kingdom, not varied materially since the Commissioners first entered on their functions. The mortality in Scotch asylums is favourably compared with that in English and French establishments, particularly as regards the smaller mortality of male patients.

The Irish Lunacy Report shows that on December 31 last there were 8964 insane patients in the several public and private institutions of Ireland; in 1864 the number was 8272, and in 1865 it was 8845, so that with a decreasing population there has been an actual increase of lunatic patients. The effect of transfers from one description of institution to another, consequent on improved provision for patients, is to render any comparison of results between the several classes of accommodation unsafe for practical deduction. A strong opinion is expressed, with which we entirely coincide, in favour of the removal of lunatics from gaols, which is in process of gradual accomplishment. Institutions of a penal character cannot fail, as a rule, to exercise an unfavourable influence upon the mentally afflicted, and the fact that persons are frequently discharged from them cured of insanity by judicious treatment is hardly a sufficient reason for their retention.

To summarise the results of the three reports, we may say that England has one lunatic to every 430 of her present population, Scotland 1 to every 480, and Ireland 1 to every 630.

We must conclude by reiterating a regret (which we have more than once before expressed) that the lunacy authorities of the United Kingdom do not take measures in concert for the production of statistics of insanity made on a uniform plan for the whole realm, admitting of fair comparison. The three reports which we have now briefly noticed are as diverse in their scope and in the facts recorded as though they related to distinct instead of to kindred subjects. And any one who takes them up in the hope that he will, without more labour and time than one in a hundred can bestow, and without reference to a host of former reports, be able to arrive at any satisfactory conclusion as to the real progress of insanity, will be doomed, as we have been, to disappointment. The English report is infinitely the worst of the three, which, remembering their longer experience, is anything but creditable to the Commissioners. The Scotch Commissioners are especially deserving of commendation for fulness of detail, and the Irish reports contain some good features; but there is room for improvement in the best of these, and the necessity for it only ought to need mention to secure its accomplishment. Look at the French returns, which we have within the last year analysed in this journal, and which are as precise and elaborate a record as can possibly be desired. The English Commissioners deal with the most terrible malady that can afflict humanity as though it were of little or no importance at all, for there is not a syllable in their last report to indicate their knowledge that the growth of insanity is a moot-point of scientific and social interest which they have the means of elucidating. If we might venture to offer a suggestion, it would be that the three Lunacy Boards should take counsel with the Medico-Psychological Association and with some experienced statist, so as to devise conjointly a system of lunacy statistics which would meet the requirements of science, and put an end to the exhibitions of incompetence or negligence which we have periodically to regret.

We hear that her Majesty has graciously announced her intention to visit the Royal Victoria Hospital, Netley, within the next few days.

INDIAN MEDICAL SERVICE.

The gleam of sunshine which we noticed in our issue of May 18 as having reached us from the East, and as shedding an abnormal brightness on the affairs of the Indian Medical Service, has, it appears, proved inadequate to dispel altogether the dark cloud of discontent which has so long enshrouded them.

By the Order of April 3 last many of the grievances of the Indian Medical Officers were removed, but much yet remains to be done, and it depends much on the spirit in which this order is carried out whether it will meet the just requirements of the case even where it is intended to apply.

Look, for instance, at the treatment of Assistant-Surgeons just joining the service; the scale of pay is laid down in the Queen's Warrant, one would think, with unmistakable clearness. For an Assistant-Surgeon under five years' service the unemployed pay is 286 rupees a month; employed pay—*i.e.*, when in charge of a native regiment—450 rupees. A young officer, armed with this knowledge, arrives at one of the presidencies, and, there being a dearth of Medical Officers, he is at once posted to a native corps or to some other equivalent charge, by which he understands that he is entitled to "employed pay." On presenting his abstract the first month, he is informed by the paymaster that, though actively and actually employed, he is only entitled to "unemployed pay," in consequence of his not having as yet passed his examination in Hindustani, and many months may elapse before he gets through that ordeal. The local authorities thus sow the seeds of discontent, and are surprised that Medical Officers are not satisfied. The wonder is, that the Secretary of State for India allows the local authorities thus to tamper with his orders.

So, again, with the Surgeon-Majors. By the Royal Warrant Medical officers were granted substantive rank, carrying with it all its advantages, save only the presidency of courts-martial. Pay, it is presumed, is included amongst "other advantages," and yet the pay of Surgeon-Majors is allowed to remain below that of their relative Army rank—viz., Lieutenant-colonels. This is a manifest injustice, and presses heavily on men who have passed the best years of their life in the service.

Of all the causes of discontent, none is operating more forcibly, especially on the higher ranks of the service, than the reduction or abolition of what have always been regarded as the grand prizes of the service. The first to vanish altogether were the European military charges, these having been transferred to the British Army, consequent on the amalgamation. Next in order, chronologically, came the reduction of the number of Deputy-Inspectors and Garrison-Surgeons; and now we learn that the Presidency Surgeoncies at Calcutta are doomed to extinction. What next will go no one can foretell, but the feeling is generated amongst all classes that it is hopeless to look forward to distinction and fortune, or to anything beyond ordinary "pay and allowances," and that the best thing they can do is to get out of the country as soon as they possibly can. The grand stimulus of hope is withdrawn, and discontent or indifference is the natural result.

It cannot be denied that the Indian Medical Service has much to put up with from the *local* authorities. The insulting insinuations of Lord Napier against the truthfulness of the Civil Medical Officers of the Madras Presidency must be fresh in the minds of many of our readers; but as he offered a handsome apology, and has since ratified his good faith by placing a Medical officer at the head of the Madras Sanitary Commission, in place of a civilian, we will pass over that and content ourselves with noticing one short episode drawn from the *Delhi Gazette* of April 27. Some time ago, a letter from the Financial Department, No. 2018, of September, 1866, informed the Medical service that the new scale of salaries for civil appointments would be retrospective. We have now before us, continues the writer, a letter from the same Depart-

ment, No. 827, of February 11, 1867, saying that in the former letter the word "not" was omitted, and that therefore the scale of pay would *not* be retrospective! Well may the writer add, "Such treatment as this from us to servants in our employ would speedily leave us without servants at all"—and justly too, it may be added.

We yield to none in earnest desire to see the Indian Medical officer put in full possession of his rights; but we are unable heartily to join in the cry which has been raised by some—amongst others by the writer of the article in the *Delhi Gazette* above quoted—as to the *injustice* of withholding staff-pay, in addition to full-pay, from Medical officers. For a long series of years the double-system pay proper and staff salary was in force throughout the Indian Medical Service. In 1864 this system was abolished, and that of consolidated pay substituted for it. This consolidated pay was calculated so as to embrace both the pay proper and the staff allowance, and we believe that we are correct in saying that the new rate was in every instance in excess of what the Medical officer was in receipt of under the double system. In some instances, as in the case of Assistant-Surgeons of above five years' service, in the charge of native corps, the increase was very considerable. Under these circumstances, it seems hardly reasonable to complain of the want of staff pay, when, in fact, it is being received, though under the name of consolidated pay. We shall most heartily congratulate our *confrères* if they succeed in getting it, and we are far from thinking that they would even then be overpaid; but we cannot look upon it as a just cause of complaint that it is not granted as a matter of course, as in the case of a commanding officer, who still remains under the system of double pay.

One word more before concluding. The writer of the article above quoted informs us that so strong is the antagonistic feeling on the part of Indian Medical officers towards Government, that when urgent application was made last year to them for such information as they might possess on the uses of indigenous drugs (required by Government for the forthcoming Indian Pharmacopœia), "a stern silence was the result, and we believe that not a single reply to the appeal was made." We are in a position to be able to state that, in answer to the appeal, above fifty reports, many of them elaborate documents, and drawn up with great care and industry, have up to this time been received from various branches of the Indian Medical Service. Let us hope, therefore, that the discontent, as well as the antagonism, has been over-estimated.

THE WEEK.

TOPICS OF THE DAY.

By the time this journal is in the hands of most of our readers, the fate of the Vaccination Bill will have been fixed. The introduction of the Lords' amendments, which were merely verbal, will give an opportunity to Mr. Vanderbyl to move in the House of Commons that they be considered three months hence. Of course, if this motion be carried, the Bill will be lost. We own we are not sanguine enough to hope for such a result. We think the Bill in its present state is impolitic, unjust, and likely to prove an inefficient measure; but whilst all parties acknowledge the validity of the main principle on which the Bill is based—that of compulsory vaccination—we do not expect that the objections to its details will have enough force in the House of Commons to procure its entire rejection. There can be no doubt that, if the Medical Profession had possessed a proper organisation, a measure bearing so unfairly on their interests might have been successfully opposed. Whatever be the issue, however, our thanks are due to Mr. Vanderbyl for the exertions he has made in behalf of the body to whom he formerly belonged.

We hope that our contemporary the *Saturday Review* is not beginning to exhibit signs of senility. The happy gift of reviling which won it many admirers and imitators in younger days seems in danger of degenerating into querulousness. Moreover, after laughing for years at the whole race of prophets, it has itself commenced in that line, and is weekly taking up its parable against some supposed folly or vice of the age. Not that in its moralities it is itself always moral. It evidently has an intense relish for the indecorum against which it exclaims. A recent number contained an article on female dress, which, if it were intended to be read by young women, was simply indecent; if by young men, viciously suggestive. For this, however, it might be said that some shadow of truth was its excuse. But last week its readers were treated with a lecture on the tippling habits of both sexes, which had not even the merit of any foundation more solid than a foolish sensation paragraph which appeared in one of our Medical contemporaries. The writer charges the Medical Profession with wilfully encouraging a habit of drinking brandy and water at all seasons, both by precept and example. A more groundless charge, we believe, was never made. We deny that this, when compared with former times, is a spirit-drinking age, and we strenuously deny that Medical men are either tipplers themselves or the cause of tippling in others. We do not know what may be the ordinary human surroundings of the writer of the article, "Keeping up the System," but we believe that the "plausible and sympathetic Physician" who counsels, and the young matrons who sip brandy in their afternoon tea, and take it at bedtime as being "the supposed secret of a genial life and a vigorous progeny," are such rare exceptions, that few of our readers who practise amongst the decent classes have become acquainted with them. We certainly have not.

The expectation of an Abyssinian war is a gloomy subject. Our recent campaigns in New Zealand and on the African coast have not been reassuring. There can be no doubt that in the case of Abyssinia the honour of the country is at stake, and, cost what it may, an attempt must be made to release the prisoners. We can only hope that, at least, if an expedition be resolved on, proper precautions will be taken to protect the men as far as possible from the effects of the climate, and to afford them proper supplies of food and medicine. It is only recently in India that a whole regiment has suffered severely from fever, for which a supply of quinine, as a prophylactic, was asked, but refused by the authorities on the ground of expense. We need not, however, go far from home to prove that the vices of our military system are still as flagrant as in the Crimean war. It was only last week that Lord Elcho, in the debate in the House of Commons on the Militia ballot, stated, in order to show the prevailing want of organisation, "that no medicines were procurable for the Hospital tents at Wimbledon from the Saturday when the camp was formed until the following Tuesday, notwithstanding that nearly 3000 volunteers and regular troops were on the ground."

The debate on the British Museum Estimates shows that the opposition to the plan of separating the national collections is on the wane. Mr. Gregory, who has hitherto taken an active part as an opponent of the South Kensington scheme, seems now to acquiesce in what he has learned to think inevitable. We can only repeat our regret that the natural history collections are to be placed completely out of the reach of a large proportion of the population of London. If separation is absolutely determined on, why not take the works of art to Kensington, where they would be appreciated by the more refined taste of the inhabitants, and leave those of nature to the vulgar classes, who are not, according to Mr. Disraeli, yet sufficiently educated to lose their admiration for stuffed birds?

Dr. Lyon Playfair's friends have issued an address to the Edinburgh and St. Andrews graduates, in which they ask support for him as a man of science well fitted to represent the Universities. Dr. Playfair is a Liberal, but does not hold extreme opinions, and in wishing to enter Parliament he has no view of maintaining any special interests. His address is

signed by, amongst others, Professor Syme, Dr. Stokes, Dr. Carpenter, Sir Dominic Corrigan, Dr. Sieveking, and Dr. John Brown, of "Horæ Subsecivæ" fame.

A correspondent writes from Dublin that fatal types of measles and scarlatina are prevailing there. A tendency to gangrene and pulmonic complication is observed. This, as well as the petechial fever observed there, point to a prevailing epidemic constitution of a low type.

The Doctors are often busy when the Registrar-General's Weekly Returns would indicate a good state of the public health. We believe this to be the case at present, and that sore throat of a somewhat severe character is prevalent, though not fatal. We want weekly returns of sickness, but fear that the want is likely to be chronic. Small-pox continues troublesome, and the fact that it attacks young adults who had been vaccinated in infancy shows the need of systematic efforts at disinfection and suppression. If the clothes and bedding of small-pox patients were treated like the litter of animals with the cattle plague, this might be accomplished.

THE ASSISTANT-PHYSICIANSHIP AT ST. MARY'S.

Of the three candidates now in the field—Drs. Fenwick, Cheadle, and Rickards—we believe the chances of success lie between the two first, Dr. Rickards having entered the arena at too late a date. Dr. Cheadle is a young and rising Physician, but his claims as a cultivator of Medical and pathological science are considerably beneath those of his fellow-candidate, Dr. Fenwick. It is difficult to say as yet which of the candidates has obtained the greater number of promises from the governors, but there is little doubt that the majority of the Medical staff consider that the high Professional distinction of Dr. Fenwick entitles him to be selected to fill the vacant office.

THE METROPOLITAN POOR ACT.

On Saturday last the managers appointed under this Act held a general meeting for the appointment of a clerk to conduct their business, and for the selection of committees to carry out the different duties entrusted to them in regard to the sick and insane poor. There were no less than 118 candidates for the clerkship, from whom a committee selected five to be submitted for the choice of the managers. The selected candidates were Mr. Berry, Mr. Goolden, Mr. L. J. Hertslet, Mr. Jebb, and Mr. Nugent C. Walsh. The choice of the managers ultimately fell upon Mr. Jebb. Business of the nature of this appointment, where a salary of £500 a year has to be given away, is always sure to impart to the proceedings of a mixed board a much greater amount of personal feeling than is ever likely to be exhibited when the subject under discussion is merely the welfare of 300 or 400 paupers, and the position of the chairman becomes proportionately difficult. Dr. Brewer, who was in the chair on this occasion, deserves the thanks of the candidates, and of all concerned, for the courteous and considerate manner in which he fulfilled his trying duty. The managers subsequently proceeded to appoint committees for finance, for imbecile patients, for small-pox patients, and for fever patients. A committee was also appointed for general purposes. The managers seem now to have fairly settled down to their work, and we hope that when the various committees have reported we may be able to congratulate them on the result of their labours, so far as they may have then advanced.

CHOLERA AMONG THE TROOPS IN INDIA.

We have been favoured with the following facts by a correspondent. During the present epidemic Peshawur has sufferd the most severely, there having been from May 20 to June 13 221 cases of cholera, of which number 131 proved fatal, and 11 cases of cholcraic diarrhœa, with no deaths. This includes 2 cases of officers of the 42nd Highlanders who suffered from cholera; 6 cases and 4 deaths of women; 9 cases and 7 deaths of children from cholera; and 1 case of choleraic diarrhœa among the women. The proportion of cases of cholera to strength among the men at Peshawur has been 10 per cent., of deaths to strength 5·8 per cent., and of deaths to cases 58 per cent., during the twenty-four days under notice. As Indian epidemics go, the present one has, so far, attained only moderate dimensions; but, supposing the disease to be equally prevalent in London, in its population of 3,000,000, for the same period of twenty-four days, there would be 300,000 cases and nearly 150,000 deaths, and an amount of labour would devolve upon the Medical men of the metropolis, and of distress among all classes, which would give some idea of what our soldiers and their Medical officers have so frequently to go through together. A few cases of the disease have occurred in almost all the military stations in Bengal—among others, at Subathoo, a hill station near Simla, at which the 90th Light Infantry is stationed. This is by no means the first time that hill stations have suffered from cholera, so that elevation above the sea level by no means secures exemption from its inroads. Subathoo stands 5000 or 6000 feet above the sea—a good deal lower, however, than the neighbouring stations, Kussowlee and Simla. Kussowlee, in a former epidemic, suffered rather severely.

CATTLE PLAGUE IN ALGERIA.

Writing to the *Standard* of the 1st inst., Mr. J. W. Oldfield states that he has received a letter from Algeria announcing the invasion of that country by the rinderpest, or some epidemic closely allied to it. The disease has made its appearance among some cattle near Phillipeville, and the results have been so disastrous that the Arabs and colonists "seem almost paralysed." Mr. Oldfield gives the following *résumé* of the symptoms:—

"The primary symptoms appear to be loss of appetite, suspension of rumination, great lassitude, and apparent dejection, but on approaching a beast which shows these signs of being attacked it will rouse and run among the rest, apparently as hearty and strong as the best of them. Sometimes constipation is present; but almost as often an attack of diarrhœa is the premonitory symptom of this malady. After a few hours the animal's lassitude appears to become very great—the dejection also; it burrows its muzzle in the ground, and begins to eat quantities of the soft earth, and continuing in some cases as long as eight days, and in others not twenty hours, dies at last, to all appearance, in great agony."

Post-mortem examination reveals general inflammation of the stomach and intestines, the lining membrane being in many instances torn away. The spleen is swollen to three times its normal size, the kidneys show traces of inflammation, and the substance of the lungs appears pulpy and decomposed. As regards the last symptoms displayed by the disease, Mr. Oldfield says there is a slight discharge from the nostrils, but the head and horns are always cool, and there is no "panting." The pulse remains normal throughout the disease. We would ask whether the disease is not that which is known in France under the name of *sang de rate*, and which, according to the investigations of M. Davaine, is due to the presence of large numbers of bacteria in the blood?

POISON OF THE COBRA-DI-CAPELLA.

The *Australian Medical Journal* contains certain observations by Professor Halford, of the Melbourne University, on the subject of snake poisons. We extract the following:—

"The melancholy accident which so lately happened with the cobra-di-capella induced me to make some experiments and observations upon the action of the reptile's poison. When a person is mortally bitten by the cobra-di-capella, molecules of living 'germinal matter' are thrown into the blood and speedily grow into cells, and as rapidly multiply; so that, in a few hours, millions upon millions are produced at the expense, as far as I can at present see, of the oxygen absorbed into the blood during inspiration; hence the gradual decrease and ultimate extinction of combustion, and chemical

change in every other part of the body, followed by coldness, sleepiness, insensibility, slow breathing, and death. The cells which thus render in so short a time the blood unfit to support life are circular, with a diameter, on the average, of $\frac{1}{1\,7\,0\,0}$inch. They contain a nearly round nucleus of $\frac{1}{4\,3\,0\,0}$inch in breadth, which, when further magnified, is seen to contain other still more minute spherules of living germinal matter. In addition to this, the application of magenta reveals a minute coloured spot at some part of the circumference of the cell. This, besides its size, distinguishes it from the white pus or lymph corpuscles. Thus, then, it would seem that as the vegetable cell requires for its growth inorganic food and the liberation of oxygen, so the animal cell requires for its growth organic food and the absorption of oxygen. The food is present in the blood, and it meets the oxygen in the lungs; thus, the whole blood becomes disorganised, and nothing is found after death but dark fluid blood—the fluidity indicating its loss of fibrine, the dark colour its want of oxygen, which it readily absorbs on exposure after death. It results, then, that a person dies slowly asphyxiated by deprivation of oxygen, in whatever other way the poison may also act, and, so far as the ordinary examination of the blood goes, the post-mortem appearances are similar to those seen after drowning and suffocation. I have many reasons for believing that the *materies morbi* of cholera is a nearly allied animal poison. I hope also to show the presence of the poison of our snakes in the blood of bitten and inoculated animals, and to make some experiments on the possibility of saving life."

The inhalation of oxygen has been suggested as a remedy in such cases.

THE LATE PRINCE CONSORT.

We are familiar with works such as those of St. Augustine, which, under the name of "Confessions," lay bare the inmost feelings and secrets of the human soul. But no such work has ever appeared which can rival that history of the early life of the Prince Consort which has just been issued by or for the Queen. In the Prince, the picture of purity, of self-devotion to the claims of duty, of chivalric endurance of obloquy—in a word, of thorough high-mindedness in every sense—is matched by that of the most intense development of the womanly and domestic affections in the Queen. No person, no establishment ever had servants so self-denying, conscientious, and vigilant as the realm of England had in its Sovereign and her husband. But there clearly are marks of human imperfection in both. That intense self-consciousness, that mind never out of harness, that most precise and methodic mental constitution of the Prince, coupled with the indications of intense need of sleep in early childhood, and of obesity in early manhood, go far to explain the nervous exhaustion which, during a not very severe fever, robbed the Queen of her husband, and the country of one of its best servants. The overwhelming affection of the wife explains her Majesty's present position—a nervous system thoroughly out of gear. Let us hope that this pious offering to the memory of the deceased Prince, and the unmixed expressions of sympathy which it draws forth, may soothe and strengthen the Royal sufferer, whilst it silences those who are too impatient for the Queen's reappearance in public. Certainly there are parts of the late Prince's biography which now make, or ought to make, the English blush; such as the purposeless question raised as to his religion, the shabby curtailment of his income, the wretched questions about precedence raised by a certain section of the aristocracy. Still more, we think, need we blush at the insinuations thrown out about the absence of the Queen from public ceremonies and court life. All we can say is, that no calamity could befall England so great as the removal of the present sovereign, and that nothing is so silly as the repining heard in certain quarters. If the Yankees choose to have a President, they must put up with his jokes, his whisky, and his vulgarisms. A king may be vicious, or may become infirm and unmanageable. If we have a queen, we must be content to bear the peculiarities of her sex, even though some of its distinctive virtues may be felt to have become, by excess, somewhat of defects.

FROM ABROAD.—LIEBIG'S MILK—ABSORPTION BY WOUNDS AND ABSCESSES.

The Baron Liebig's letter to the Academy of Medicine, which we noticed last week, has given rise to a new communication of M. Poggiale, in which he reiterates his charge that the production of this artificial milk is founded upon false chemical analogies, and in contradiction to Liebig's own theories. The concluding passage, and with it, we hope, an end of the squabble, is as follows:—

"My conclusion is just that of my preceding communication. I reject this artificial milk because it differs from woman's and cow's milk in its physical properties and composition, and because its chemical preparation exacts several operations, care, and skill. I reject it because Baron Liebig has replaced the fatty matter of the milk by glucose, which does not produce the same physiological effects in the economy. I reject it because cow's milk, in the absence of the maternal milk, is an incomparably better aliment. And, finally, I reject it because this milk, as M. Liebig himself acknowledges, is but a clumsy imitation of the maternal milk, and its preparation is only founded on a single analysis of a very contestable accuracy. Although M. Liebig assures us that thousands of infants of the Germanic race have thriven wonderfully well on this compound, it is our duty to state that this milk has produced very different results on the Latin race, that it has been disapproved of by the Academy, and that we wish to have nothing to do with it on this side of the Rhine. If, as he tells us, it appears in the advertising sheet of the political journals—a page so odious in all matters touching the public health—it will not figure there very long. At least, that is the wish I entertain, not only for the sake of the poor children concerned, but also for the reputation of M. Liebig, whose name has always been held in honour by the savants and enlightened men of our country."

M. Boudet states that for the last twelve years, as a member of the *Conseil de Salubrité*, he has had to examine the milk provided for the consumption of Paris, and that he often meets with milk of most excellent quality, and that the sole fraud practised consists in the addition of water, and this rarely a fifth—the very proportion, in fact, in which milk may be diluted advantageously for the use of young infants. We fear so favourable a statement as this could not be made concerning our London milk; but this is only conjecture, for we have no such admirable provisions as exist in France for testing its purity and punishing falsifications. During the reading of the papers upon the subject the learned Academicians amused themselves by passing round the following *jeu d'esprit* extemporised by one of their number:—

De son lait Liebig veut nourrir notre enfance;
Il semble réussir pour ses jeunes Teutons:
Mais Depaul nous apprend que nos enfants de France
S'accommodent bien mieux d'un bon lait de tétons.

Professor Gosselin read a report upon a memoir recently addressed to the Academy of Medicine by M. Demarquay on "Absorption by Wounds and Abscesses." In this he stated the results of a series of experiments made by introducing a solution of iodide of potassium (10 per cent.) into wounds and various accidental cavities. At the end of a period varying from six to thirty minutes, iodine was found in the urine, and especially in the saliva, appearing more promptly when applied to a granulating wound of eight or nine days' date than when brought in contact with quite recent wounds. Analogous results have been obtained from applying the iodine to ulcers and open cancer, and the cavities of abscesses and cysts.

These experiments confirm others which the reporter had made in 1857, and those of which Bonnet published an account in 1852. The clinical consequence which M. Demarquay deduces from his experiments is that wounds and abscesses may as easily absorb the miasmata diffused in the atmosphere from all the putrescent matters which pus and blood are capable, on decomposition, of depositing on the

surface of solutions of continuity. Is it, therefore, not probable that traumatic erysipelas, putrid and purulent infections, and puerperal fever are due to the absorption of deleterious products by the surfaces of wounds? In the first place the doctrine of the absorption by wounded surfaces, the reporter observes, is no new one, having been advanced by various notable authorities during the last thirty years. But, while admitting the power of absorption, the reporter would hesitate agreeing to the generalisation which is attempted to be deduced from it, for in his own practice he has not found traumatic fever preceded by any putrefactive alteration of the discharges, the decomposition of the pus being in fact rather a consequence than a cause of the accidents. But even supposing such putrefaction were primary, we have no proof that the deleterious or toxical substances which result are absorbable by the wound in the same way as the iodine. The experiments which have been made on animals in reference to this point are not sufficiently conclusive. This doctrine of absorption is too exclusive, for we have to take into account also the influence of vitiated air, overcrowding, the power of contagion (*pouvoir contagieux*), physical pain, moral impressions, the prior state of health, etc., etc. M. Demarquay's conclusion can, therefore, only be regarded at present as a mere hypothesis, although we may accept the therapeutical conclusions it leads him to, and which are (1) not to leave wounded surfaces exposed to the air; (2) to dress them with glycerine, alcohol, or disinfectants; and (3) to place the patients in a pure and frequently renewed atmosphere. But in addition to such means (which M. Demarquay has by no means proved have led to a diminution of erysipelas and purulent infection in his Hospital), we ought to attach a high importance to the simplicity and "indolence" of the dressings employed, an exceedingly careful attention to moral influences, to diet, the use of tonics and alcohol, the isolation of patients, etc.

M. Guérin, commenting on the report, observes that doubtless much more exact and varied observation is required before we can pronounce whether absorption of putrid matters is the sole cause of the accidents attributed to them; but while admitting with M. Gosselin that M. Demarquay's generalisation is a simple hypothesis, incapable at present of being raised into a doctrine, he regards some of the arguments brought forward as qualifying it rather as statements in its favour. Thus, vitiation of the air, moral influences, pain, and the condition of the patient's prior health, may eminently aid in the decomposition of the matters in question, or in facilitating their absorption. "To sum up," he says, "with these two facts before us, of the absorption by wounds and the alteration of organic products through contact of the air, we feel obliged to admit that a great number of the accidents which complicate wounds result from the absorption of putrid matters by their surfaces; and we are strengthened in this opinion by the excellent results which we have seen follow the adoption of methods of operating and dressing which have for their object and result the protection of wounds from the contact of air and the prevention of the decomposition of the liquids which exude from their surfaces."

PARLIAMENTARY—THE VACCINATION BILL—THE POOR-LAW BOARD BILL—DETENTION OF PAUPERS SUFFERING FROM MENTAL AND CONTAGIOUS DISEASES—SMALL-POX AND THE SCOTCH DISEASE—DISTRICT LUNATIC ASYLUMS (IRELAND) AND PUBLIC HEALTH (SCOTLAND) BILLS — PAYMENT OF IRISH POOR-LAW MEDICAL OFFICERS—THE BRITISH MUSEUM ESTIMATES—THE FACTORY ACT EXTENSION BILL.

In the House of Lords, on Thursday, the report of the amendments to the Vaccination Bill was brought up and agreed to.

The House of Commons went into Committee on the Poor-law Board Bill. Mr. Ayrton moved an amendment on Clause 1, with a view of renewing the Poor-law Board for five years only. After a lengthy debate, this was negatived by a large majority. An amusing discussion took place on Clause 22.

Mr. Ayrton remarked that it was rather an extreme provision, because under it the master of a workhouse, in the event of the Doctor co-operating with him, could order the detention of an inmate until the next meeting of the Guardians, who might further detain him until they thought he ought to be discharged. He was of opinion that some mode ought to be devised to enable persons so detained to obtain their release.

Mr. Hardy would remind hon. members that workhouse authorities had no object in retaining paupers unless there was good ground for such a proceeding. The clause applied to the cases of insane persons and persons afflicted with contagious diseases.

Mr. Ayrton did not think the provision was objectionable as far as it applied to the cases of mental disease; but to give power to the officials of a workhouse to imprison a person because he had a bodily disease which might be contagious was one of the most monstrous propositions ever made to the House of Commons. There was a Scotch disease of a contagious character, but was a man to be imprisoned merely because he had a national disorder? (A laugh.) He moved the omission of the words giving the workhouse authorities power to detain persons having a bodily disease of a contagious or an infectious character.

Colonel Stuart said that the disease referred to by the hone member for the Tower Hamlets was cured in 48 hours. Hg did not think there was any danger of the provision beine abused, because guardians had no object in detaining any on in a workhouse longer than was necessary. (Hear, hear.)

Mr. Whalley observed that the master of a workhouse might have such strange views on religious matters, that he would regard the holding of the principles of civil and religious liberty as a proof of raging madness. (A laugh.) The term "a lunatic" had a definite legal sense, but "mental disease" had not.

Colonel North hoped the clause would be retained. Two years ago he called attention to a case in which two women suffering from smallpox insisted on leaving the workhouse, and it was then promised that such cases should be provided for.

Mr. Sclater-Booth reminded the Committee that large sums had been expended at the instance of the Poor-law Board in building wards for smallpox and infectious cases. It would be hard if boards of guardians were now debarred from curing these unfortunate creatures.

Mr. Candlish thought that there would not be much harm if the clause remained in its present form. Objections would, however, be met by making it more specific, as by inserting "small-pox and the Scotch disease." (A laugh.)

Mr. Hardy remarked that under the Act of last year persons suffering from infectious diseases were liable to a penalty if they exposed themselves. The words "dangerous and infectious disorder" might be introduced.

Sir J. Jervoise contended that the existing law was sufficient, and that the clause would lead to an abuse of authority.

Sir J. Simeon observed that the Scotch disease, though it had been treated somewhat jocularly, was a serious thing, which ought not to be let loose on the world. He thought the objection to the clause was making a mountain out of a molehill. (Hear, hear.)

Mr. Ayrton believed all cutaneous disorders were contagious. He contended that under this clause masters might practise tyranny on obnoxious inmates.

Lord G. Cavendish looked on the clause as a very useful one. Masters of workhouses were now placed in an awkward position by inmates insisting on leaving, although suffering from dangerous diseases.

The amendment was negatived.

On Friday, in the House of Lords, amendments to the Vaccination Bill were agreed to, and it was read a third time and passed.

In the House of Commons, the District Lunatic Asylums (Ireland) Bill was considered as amended, and the Public Health (Scotland) Bill was recommitted *pro formâ* and ordered to be printed with amendments.

On Monday, July 29, in the House of Commons,

Sir F. Heygate asked the Chief Secretary for Ireland whether the Government approved the recommendation of the Poor-law Commissioners for Ireland with respect to the grant from the Consolidated Fund of "a moiety of the cost of Medical salaries and of Medical appliances in Irish workhouses and dispensaries,"—"That a large portion of the grant

should be applied to improve the Medical arrangements of Unions on the western coast of Ireland;" and whether such an apportionment of the grant would not be in direct opposition to the practice in England of the repayment of a moiety of the Medical salaries and appliances of each Union; contrary also to the intention of the Select Committee on Irish taxation, who first called attention to the subject, and in fact involving an application of the principle of "rate in aid."

Lord Naas said that in the early part of the present year, when this new grant was considered, some suggestions were made on the part of the Poor-law Commission in Ireland as to the mode in which it would be expedient to distribute the sum. It was not, however, thought advisable during the present year to depart from the principle adopted in England. If the proposal made by the Poor-law Commission had been carried out, the county which the hon. member represented would have been benefited to the amount of £115, and Galway, another county which objected to the proposal, would also have been benefited. He, therefore, did not think that the question was properly understood in Ireland. The grant was a rate in aid from the Imperial to local funds, and he hoped that that fact would be borne in mind in considering this question in another year.

In Committee of Supply, the British Museum Vote, moved by Mr. Walpole, was agreed to—the Chancellor of the Exchequer stating in the course of the discussion that early next year he hoped to propound a comprehensive scheme for the better accommodation and exhibition of our national collections.

On Tuesday, in the House of Commons, the clauses of the Factory Acts Extension Bill were discussed in Committee, and agreed to with some unimportant amendments.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

The outward and visible signs of inward and invisible diseases, as they may be recognised in the human face, have never been classified by nosologists. It is obvious that they must have commanded the attention of Practitioners in all ages, though no attempt has been made to render them systematical by ancient or modern authors. The just estimate and true basis of Medical physiognomy, or the recognition of disease in the expression of the face, was first expounded and given by Sir C. Bell. The agonies of human sufferings and the brighter aspirations of mankind, on unerring principles of experimental knowledge, were depicted by him in that original work, "The Anatomy and Philosophy of Expression as connected with the Fine Arts." His heads of soldiers suffering from gunshot wounds still give admirable lessons to our painters and sculptors. He copied from nature—they copy him.

As a pupil and an ardent admirer of that gifted physiologist, the writer claims some indulgence if he appears discursive in his remarks on the steps which led to the production of this admirable essay, containing, as it does, examples of that rare combination of originality in conception of ideas with a logical deduction of facts, which characterises its author as a true philosopher and distinguishes him from the mere observer or rash speculator.

The dawn of light that first gleamed on the intellect of our great neurologist sprang from the following truth, elicited by careful and assiduous dissection upon the roots of all nerves issuing from the brain and spinal cord. This new mode of examination demonstrated to his mind the fact that one set of spinal nerves (motory) arise from a continuous line of structure in the spinal cord, whilst the other class (those imparting sensation) come from a separate column of nervous matter, and posterior to the former. In the brain one nerve only was found with a double root, thus making it analogous to the spinal nerves, and that exception proved the soundness of our author's views and the correctness of the physiology of the spinal cord. This nerve, imparting sensation to the face and its varied organs, and bestowing also motive power to the muscles of the jaws, Sir C. Bell designated "the nerve of sensation and mastication" (the fifth). The whole structure he classified under the title of "original system of nerves," imparting to the lowest grade in vertebrata and invertebrata locomotion, prehension, mastication, as specially characteristic of animals contrasted with vegetable organisation. But our author met with two other great systems which so thoroughly differed from the above that there could be no difficulty in classing them apart from the rest. The first of these two classes is denominated by anatomists the sympathetic or ganglionic system, and Sir C. Bell viewed this series of nerves as designed to fulfil offices which had been left unprovided for by the classes of nerves whose functions had been ascertained. "He supposed that it presided over those organic processes in the economy which are common to vegetables and animals, and which are carried on secretly and independently of the direct control of the brain, such as secretion, absorption, assimilation, growth, reproduction, decay."(a)

But it was to the last of the series, and to "the original system of nerves," that this physiologist gave his attention, and furnished to the world that valuable discovery which has wrought a fundamental change in the theories previously held on the doctrine of neural powers; indeed, the writer can fully acquiesce in the statement of our author's relative, and affirm that "the discovery is on a par with Harvey's circulation of the blood."(b) At the base of the brain, within a circumscribed area, he found a limited number of nerves, distinguished by having a limited origin, and all of them single-rooted, diverging, in an apparently irregular and scattered manner, across the other nerves, to be distributed to the face, throat, neck, and chest—that is, to the region where the organ of respiration, with its concomitant parts, is situated. Quitting this vast field, which the author divided into two portions—"the diffuse" and "the concentrated" mode of breathing, or the act of oxygenising carbonised blood by direct contact with air or with water, or effecting the same result through the agency of a superadded system, the respiratory mechanism, with a vocal apparatus—we now propose to confine these prefatory remarks to the physiology of the first nerve in this series, the portio dura, and its almost boundless powers of affording mute language in the varied expressions of the face under bodily suffering as distinct from mental disease. The latter department has been ably represented by the beautiful plates appended to Esquirol's great work on mental maladies, and later by Sir Alexander Morrison's volume on "The Physiognomy of Mental Diseases." Though last, yet not the least valuable, are the excellent portraits and original papers by Dr. Conolly on the same subject in the *Medical Times and Gazette* of 1858.

It may appear to many a superfluous task to attempt to judge of the character of an individual by a glance at his face, but whatever may be thought of the possibility of laying down strict rules for such judgment, it is a fact of everyday occurrence that we are, almost without reflection on our part, impressed favourably or unfavourably with the temper and talents of others by the expression of their countenances. What is the secret of this involuntary influence over our minds by our fellow-men? Doubtless a well-developed forehead indicates superior intellect, as a low receding one represents a deficiency of mind. The Grecian works of statuary give a facial angle of 85° to their heroes and great men, and in those of Jupiter this angle reaches 100°. The face acquires its expression also from bodily habits and from intellectual or sensual pursuits, so that we may pass from the lofty and expanded forehead, with the small well-formed mouth of the philosopher, down to the shallow front and protruded muzzle of a negro, whose habits are more bestial than the animals he chases for the support of his life.

It is an established truth in comparative anatomy that "the superiority of the animal is in the hand, and that the superiority of the hand is found in the thumb." We may superadd this truism, that the key to anthroposophy is to be met with in the face, the voice, and in the ball of the thumb; for although the first finger, with its special power of directing to objects, cannot say to the third "I have no need of thee"—since Weber has shown, by numerous experiments on persons blindfolded, that two minute bodies, separated by only half a line, are felt as distinct substances on the tip of the ring finger, when the other portions of the hand do not exhibit higher sensitiveness than the lips or tongue—yet all manual operations are subservient to the thumb.(c) The hand and the voice are intimately associated in character, whilst the face often

(a) "Idea of a New Anatomy of the Brain." C. Bell. 1811.

(b) "Sir C. Bell's Discoveries on the Nervous System," by Alex. Shaw. 1860.

(c) The reader may see this curious subject ably discussed in MM. D'Arpigny and Desbarolle's papers in *Medical Times*, 1847, and in the "Psychonomy of the Hand," by Richd. Beamish, F.R.S., 1865.

foretells the nature of the latter. The high forehead, elongated features, pointed chin, tapering fingers, will be accompanied with a mellow voice, and, in an orator, the delivery is somewhat rapid, and the enunciation clear and distinct.

The Saxon or Germanic square-faced man, with his brownish hair, broad hand, and largely developed thumb, will, by his stentorophonic conversation, proclaim the difference of race from the former. Substitute for the beautiful hand of a Niobe, or the elegant fingers of a Venus, a large, coarse, disproportioned hand, with a broad, inhuman-like palm, ape-like thumb, and massive knotted fingers, and all the world, artistic or non-artistic, would unanimously declare that such a hand could never have belonged to so lovely a frame. The voice of a Brougham or of a Gladstone, so far as intonation is concerned, would be smothered by the deafening "hasso" rings of a well-known Radical member of the Lower House, with a strongly developed Teutonic face.

The portio dura, as already remarked, is distinguished from the fifth and the spinal nerves by its possessing only one root for its origin. Having pierced the skull and emerged on the face, "it takes a leap, as it were," across a particular class of muscles, avoids contributing any branches to them, though it actually lies for a considerable part of its course upon two of the largest (masseter and temporalis), but pursues its way, undiminished in size, to the muscles of the features beyond; whereas the fibrils of the lesser root of the fifth or non-ganglionic portion are traced into that group of muscles which the portio dura had passed by—viz., the muscles of the jaws.

The happy methods our great neurologist possessed of fascinating his class with the original views he then propounded of the respiratory system of nerves are still fresh in one's memory. He pointed out the intimate relation that exists between the functions of the portio dura and the physiology of respiration, of mind, of expression, and of voice. The use of this nerve, amongst others, is to associate the muscles of the lips and of the nostrils—those two external orifices of the air tubes—with the rest of the organs of respiration, whilst its branches which descend upon the neck, and those which go to the orbicular muscles, control movements connected with disturbance in the venous circulation. The permanent distension of the orbital veins in chronic emphysema pulmonum, where retardation of blood through the pulmonic heart exists, produces a staring eye, protruded globe, and a raised eyelid and brow. The voice, under these conditions, is often so characteristic that it may be recognised as that of a "broken-winded" individual. We shall have occasion to recur to this valuable field in diagnosis when we pass on to the expression of disease in disorders of the respiratory system.

"There is no emotion in the mind of man which has not its appropriate signs, and the muscles supplied by the portio dura, the four muscles of expression,(d) can have no other use assigned to them than to serve as the organs of this language. On the other hand, there is in the lower animals no range of expression which is not fairly referable, as a mere accessory, to the voluntary or needful actions of the animal, and this accessory expression does not appear to be in any degree commensurate to the variety and extent of the animal passions. These four muscles indicate emotions and sympathies of which the lower animals are not susceptible, and as they are peculiar to the human face, they may be considered as the index of mental energy in opposition to mere animal expression."(e)

The intimate communications of the fifth, seventh, and sympathetic nerves through the media of the ciliary, optic, and Meckel's ganglia, would lead us to expect that the eye should exhibit, in its altered appearance, the derangement of internal structures. When a glance of this organ is caught, what a field of mute expression does it open to the mind! This silent and instructive index of the whole man may be bright or dull, heavy or clear, half shut or unnaturally opened, sunken or protruded, fixed or oscillating, straight or distorted, staring or twinkling, fiery or lethargic, anxious or distressed; again, it may be watery or dry, of a pale blue, or its white turned yellow, or its white blood supplanted with red blood. Its vibrations and changes often cannot be numbered, they are so evanescent and so sudden. The pupils may be minutely contracted or widely dilated, insensible to or intolerant of light, oscillating or otherwise, unequal in their sizes and deflected from their clearness. Then we view the brow, that wonderful appendage of expression in a human face, which, when knitted at our favourite dog only, will cow him. This noble arch speaks its valued language through every face in the Hospital wards. It may be overhanging or corrugated, raised or depressed, whilst the vault of this arch—the lid—exhibits its alternations of puffiness or hollowness, of smoothness or unevenness, of darkness or paleness, of sallow or brown, of white or purple. Lines intersect the region, and the varied tints are perpetually giving new colour, new feature, new expression by their shadows. Nor is the mouth inferior in expression to the eye. The greatest beauty of a face resides in the former, and the highest evidence of intellect in the latter and its brow. These departments, under suffering, are most telling in mute language when internal disease spends its ravages upon organs essential to life. If the angle of the mouth is depressed, pain and languor are read; when the corrugator supercilii co-operates with it, acute suffering is proclaimed. If the frontal muscle joins its operation, an acute turn upwards is given to the inner part of the eyebrow, very different from the general action of the frontal muscle, and decidedly expressive of an agnish debilitating pain, or of discontent, according to the prevailing cast of the rest of the countenance. The highest order of mammals requires no other form of organisation in the mouth than that we meet with in a whale or in a kitten. In each case one instinctive power subserves the purposes of suckling, but far nobler and higher offices await the lips of man than those of his subordinates in creation. This cavity is reduced in size, the teeth are set erect and in close and uniform rows, the whole form arranged and proportioned for the articulation of words in speech, whilst the curl, the sneer, the pout, the depression, or the widening of the lips or mouth speak a language denied to brutes.

But when we pass from the study of the character of man to that of diseases incidental to his nature, as these are portrayed in the features of the face, the gait of the body, or the position of the whole frame when prostrate on a bed of sickness or suffering, what an invaluable field of instruction do we enter upon! No written or artistic description will ever convey the great facts connected with this subject, and no extent of reading can give us the power of appreciating in practice those minute differences in the face of our patient on which the Practitioner often founds his judgment and adapts his treatment. We may, nevertheless, set forth some important outlines which the features invariably furnish to the clinical student.

It is a wide though untrodden field after all. We can, however, particularise and describe individuals of the copper-coloured Indian, of the tawny Chinese, or the black-skinned African, and we may trace the lineaments of disease generally, and of some in particular; though the species often present analogous features, yet in nature, character, and end they vary in the greatest degree. If it were not true that divers diseases presented similar aspects in one stage or other of their progress, whence would arise the difficulties which start up, and which are weighed with such care and anxiety by the judicious Practitioner? The object, therefore, of these papers is to bring forward the assimilation or likeness—certainly not family likeness—of diseases. The Alpine cretin may be no relation to his antipodean brother, or to a Bushman, except in the mutual term man, yet the unchanging lineaments, expressive of suffering, will assimilate in both races when either is invaded by disease. The recognition of such invasions of internal organs affords the physiognomist a readiness in forming a correct diagnosis and prognosis, which will astonish persons who have neglected this interesting study.

But, in approaching this subject, the student must not suffer his mind to rush at the study of a set of diseases in his ward rounds as a cur runs at a bull, but rather as a cautious, skilful general surveys the outposts and strongholds of his enemy preparatory to an attack. If he brings a thoughtful mind to his work, the first step should be to attempt to impress on it the chief or leading index of the countenance—the features of the face—and to ascertain mentally how the patient "looks," before he inquires how the sick man "feels." In all acute and chronic diseases of vital organs, an air, a gait, a manner, a cast, a colour, a turn, an expression, speak a silent language so significant that at the first glance the physiognomist may be intuitively led to the conclusion that he has to do with an acute or chronic "cerebral," "pulmonary," "cardiac," "hepatic," "renal," or "uterine" case of disease. Therefore, not only must physiognomy, attitude, general

(d) Corrugator supercilii, triangularis oris, depressor alæ nasi, nasalis labii superioris, together with the anterior portion of the occipito-frontalis.

(e) Sir C. Bell's "Anatomy of Expression." 4to.

contour, gait, and embonpoint be seized by the mind, but the colour or cast of the whole face will form an essential helpmate to a correct diagnosis. Having run the eye over the face, and got that by heart, so to speak, let the student then endeavour to pick out the positive features of the face which are characteristic of positive changes in the vital organs. In acute cerebral diseases the countenance is either wild and excited, or lethargic and expressionless. Thoracic affections are all accompanied with more or less change in the *colour* of the face; whereas the alteration of the natural hue in the features is so slight in abdominal seizures, that both intellect and complexion have remained unaltered up to the final struggle, though the pinched and dragged features expressed the acute sufferings of our patient.

We might tabulate some of the leading changes so observed in diseases of the three great cavities thus:—

In cerebral disease the countenance is lethargic.

,, emphysema pulmonum	,,	livid.
,, œdema pleuræ	,,	anxious and dusky.
,, ,, pericardii	,,	anxious.
,, ,, pulmonum	,,	heavy and distressed.
,, pneumonia	,,	of a dusky flush.
,, pleuritis	,,	pale and anxious.
,, bronchitis	,,	dusky and livid.
,, tuberculosis	,,	wan and pale.
,, malignant disease	,,	sallow and wan.
,, icterus	,,	yellow and wan.
,, { renal disease (morbus Brightii) }	,,	puffy and anæmic.
,, entozoa	,,	wan and pinched.
,, peritonitis	,,	anxious and dragged.
,, uterine disease	,,	sallow and haggard.

With a scaffolding or alphabet like the foregoing, we may start on our inquiries, and put together certain syllabic traits in expression which will speak more infallibly and convincingly than the uncertain and confused words which often fall from the lips of a patient—a silent language that can

> "Deceive no student. Wisdom there, and truth,
> Not shy, as in the world, and to be won
> By slow solicitation, seize at once
> The roving thought and fix it on themselves." (*f*)

Amongst the several excellent portraits of disease in my possession, by that eminent painter Geo. Foggo, Esq., the accompanying illustration of paralysis of the portio dura seems

to form the most appropriate selection as a sequence to these remarks on the physiology of expression.

The physiognomist may here study the representation of faint anæsthesia in the extremities of the ganglionic portion of the fifth, as evidenced in the slovenly half-shaved condition of the left whisker and the beard below the reddened everted lid, as it is permanently exposed to air, not by the failure of the orbicularis muscle merely, but from the loss of balance of power in the buccal muscles, whilst the bluff state of the corresponding angle of the mouth, as the air escapes from it, are evidences of slight loss of sensation; though this deficiency is rather due to the intimate union which exists between the nervous extremities of the sentient (fifth) with the seventh, than to any disturbance of the functions of the former within the skull.

The neurologist will discern the true office of the portio dura in its negative evidences. Place a card over the right half of the portrait, and then remark the drooping, puffy brow, with part of its hair buried under the puckered folds, as they fall heavily towards the external angle of the eye. The blood-shot everted lower lid tells us that the man cannot approximate this portion to its raised fellow, which is drawn intensely up by its levator, whilst the permanently snorting condition of the nostril, the flat languishing surface above the brow and over the cheek are in striking contrast to the healthy side, which is now rendered unhealthy in appearance only by the antagonistic balance of motive power being destroyed. Remove the card and cover up the diseased surface, and study the healthy yet distorted side; observe the intense action of the anterior fasciculi of the occipito-frontalis, so that, with the combined influence of the levator palpebræ and orbicularis oculi, the eye may be kept fairly open, yet there is a frown notwithstanding; this scowl is given by the increase of tissue drawn together in a pucker over and below the brow. The levator labii superioris alæque nasi has also, by its unopposed action, dragged the cheek into an almost perpendicular furrow, whilst it has left a perfect dimple at the angle of the mouth. The patient, you may observe, was so far conscious of the draught of cold air from the ward door that he has hoisted his smock and waistcoat somewhat and inclined his head "windward"—a sure proof that the trunk of the fifth and the portio mollis are perfectly healthy in their functions, and it may be observed here that his masticating powers were not in the slightest degree impaired. The tick of the watch was distinctly heard in front of the left tragus. Sir C. Bell was wont to indulge in a severe form of criticism when he compared the opinions of Practitioners of the present time on the nature of these cases with those held by pathologists prior to the publication of his views. Such attacks were formerly all classed under the designation of "a seizure of apoplexy" or "a slight threatening of overflow of blood to the head," etc. Bleeding, cupping, blistering, purgation, and the free use of mercury, even to ptyalism, were the authorised weapons by which students were directed to combat this seizure. It is now a rare circumstance to meet with paralysis of this nerve as the result of endocranial disturbance, whilst the cases of "wry face" from accidental exposure to a blast of cold air are to be seen daily in all the metropolitan Hospitals totally unconnected with any derangement of circulation within the skull. Six of such cases are now before the writer's notice. No. 1 occurred in a young friend at Oxford just as he entered upon his clerical duties. He had walked into his rooms at New College freely perspiring on a cold day of March, and sat down between the fire and an open window having a N.E. aspect. He was soon conscious of some chilliness, got up to close the window, and before he did so he spat, but the effort to do so sent the saliva drivelling down his cheek, and it slavered on to his chin and waistcoat. No. 2 occurred in a lady travelling on a cold autumnal day in a close carriage. She wore a velvet hat, and finding its warmth too oppressive she removed it, and opened the window. The party shortly passed over the bleak downs between Burgess-hill and Brighton, and on reaching their destination at the latter town the family were shocked to behold the altered features of an intelligent and amiable countenance. No. 3 occurred in a sister of one of the Medical wards whilst in the discharge of her duties, and without any apparent cause but a slight cold in the head. No. 4 was highly instructive, the subject being a labouring man from Windsor, "deaf as a post" in the left ear, and some thickness in the hearing of the opposite side, a decided twist in the face, without any anæsthesia. On looking into the left auditory meatus, a deep, hard, pellet-like mass of wax choked up three-fourths of the passage. Cautious and frequent syringing soon brought away the ceruminous block, and the poor fellow "heard a pop-gun go off," and was fully restored from that time. No. 5 was a

(*f*) Cowper's "Task."

similar case in an older woman, with slight evidence of deranged circulation at the base of the brain; she is still under treatment, but can close the eye and kiss her hand; slight disfigurement remains, however, in the mouth. No. 6 forms the accompanying portrait. James F., aged 45, a labourer from Kent, thinks he sat in a draught; suffers no pain. There is constant weeping from the left eye, and dribbling from the angle of the mouth. Grinds his teeth thoroughly, but has to use his finger occasionally to turn the food out of the pouch-like condition of the left cheek and bring it under the molars. Has bitten the latter and the edge of the tongue several times. After one brisk purgation the "pes" of the nerve was pencilled over with a strong croton-oil liniment; the pustules and circumjacent redness which ensued caused much swelling and heat of the whole side of the head and face. In four weeks after treatment the patient, by a little effort, could squeeze out of sight the whole of the sclerotic, the teacup no longer felt broken as he drank, and he could spit without dribbling and smoke his pipe with comfort. The everted lids did not much improve in tone.

REVIEWS.

Clinical Histories, with Commentaries. By Henry Day, M.D., M.R.C.P., Physician to the Stafford County Infirmary. London: John Churchill and Sons. 1866. Pp. 254.

The pressure on our pages often prevents us from noticing many books of mark [so soon after their publication as either authors or ourselves could wish. We are nevertheless mindful of every good book, and sometimes, because a book is good, we are all the longer driven to delay from the desire that special justice be done. The book before us is one which demands this brief apology. The production of an eminent provincial Physician, it discloses a good will for work, a good power of observation, and an experience as ripely matured as it is modestly set forth. The clinical histories are thirteen in number, and, with the comments, fill a volume of 254 pages. Each history is, in fact, an essay on some case taken as a text, and the titles of the essays respectively are as follows:—"Cerebro-spinal Meningitis," "A Rare Case of Ovarian Disease," "On Secondary Cancer of the Lung," "On the Treatment of Acute Rheumatism by Blisters," "Rheumatic Fever without Pain," "Chorea from Spinal Irritation," "Pelvic Hæmatocele," "Epilepsy from Peripheral Irritation," "Epilepsy from Hepatic Congestion," "Alternating Leucocythæmia," "Leucocythæmia," "Hysterical Facial Paralysis," "Cardiac Apnœa."

Amongst these essays, or histories as the author calls them, there is not one but presents some new point of interest, some fact which adds to our knowledge, or some experience which confirms what we have known. We would hardly undertake to say which of the "histories" is most useful, for there is a uniformity and balance about the work indicating that every case in it has been studied with equal care. The character of the work as a whole will be sufficiently explained if we dwell on one or two special subjects.

The essay on the treatment of rheumatism by blisters is, to our minds, a striking chapter; its evidence in support of the blistering treatment is affirmative, and the reasoning in favour of the treatment, based on the affirmation, is as straight as it is simple. As to the mode in which the remedy operates for good, Dr. Day is not so sure as some other writers. He does not accept that the blister eliminates a poison, but he evidently traces the result rather to some action exerted on the extremities of nerve. Speaking of what has been called the "mint-and-water treatment of rheumatic fever," Dr. Day protests strongly against the possibility of such treatment. He holds that a disease may be treated medically though no antidote be discovered for it or used for it—nay, though no drug whatever be administered. Sometimes maladies are best treated in this manner, and this may be the case in acute rheumatism; "But," to quote the author's own words, "because faith cannot be placed in any one of the proposed *specific* means of treating the affection, I protest," says he, "against its ever being left entirely to nature, and against the idea that it ever is so left, or is ever likely to be."

The essay on Rheumatic Fever without Pain is a clinical narrative well told and ably commented upon. It is worthy of careful perusal as a pioneering attempt to abolish the chemical theory of rheumatism and to trace the origin of the disorder to spinal derangement.

The essay on Alternating Leucocythæmia is of value as showing that an extreme condition of white blood cells may be temporarily recovered from, and that, in fact, the condition may be present at one time and absent at another time in the same person, the general symptoms presenting a similar alternation. The case is novel, and, far better, it is hopeful. It suggests that some cases of extreme leucocythæmia may in the end make a good recovery.

The essay on Hysterical Facial Paralysis presents us with a typical case of hysteria in the male, the most marked sign being a well-pronounced facial paralysis, which suddenly passed off in the course of a night.

The last essay, on Cardiac Apnœa, is the most elaborate of the whole, but is not the less practical. The author recognises with singular acuteness all the phenomena of this terrible disease. He paints vividly the paroxysm, and in one instance the almost tetanic death. He shows the possible results of false or ignorant diagnosis, and explains the physiological bases of the symptoms in their alliance with other bases of diseased action.

On the question of the nature of cardiac apnœa, Dr. Day makes one observation which we cannot too earnestly recommend to the notice of our readers. He has been describing one of the intense tetanic attacks, and he then adds:—

"In studying cases of the kind I have given there is another point very distinct in itself, but which should always be kept in mind as bearing on the exciting cause of the paroxysm. We have abundant proof that in the production of an attack of cardiac apnœa there are always, we may say, two factors at work; there is a previously prepared condition of the heart, if I may be permitted such an expression, and there is excitation of the nervous supply or force. But for this, life would be impossible under the circumstances in which angina pectoris happens. As it is, the patient may go on for days, weeks—nay, months—without a paroxysm. He will be unwell, feeble, perhaps nervous and excitable, during this period, but free from the acute attack. At last there is some sudden action on the nervous system which tells upon the heart, and then the symptoms appear in all their terrible vehemency."

In a further page, when discussing the question of treatment of cardiac apnœa, Dr. Day describes with much judgment the principles of what may be called the moral treatment as deducible from the argument quoted above. But we must linger no longer, except to say that the book altogether is excellent. It is a book which does credit to the English Medicine of the present; it is a book which will live in the future and will gain favour as it lives.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, July 31.

The Paris Exhibition is now rapidly approaching its latter end. Within two months the monster show will be closed, and the proposal started by some of the members of the Commission to extend its duration to the end of October has been rejected on account of the difficulty of retaining foreign exhibitors for a month longer in Paris. Besides, the affluence of strangers having considerably diminished, the strongest motive which might have been urged in favour of a prolongation is removed. There is no ground, therefore, for supposing that the Exhibition will remain open after October 1.

Small is the space allotted to the healing art in this immense building, yet such is the variety of interesting objects contained in this very limited department that a full catalogue of its riches would occupy whole volumes. Time presses, and in order to give your readers even a bird's-eye view of its contents I shall be obliged to skip rapidly over many a point on which I should have been pleased to dwell at greater length.

The chief part of the English Medico-Chirurgical exhibition is congregated in a narrow corner of the building, in the immediate vicinity of musical instruments, which fill a much larger space, and cast their Medical neighbours altogether into the shade, so that an inattentive visitor might easily miss them altogether if not previously informed of their situation; but to one acquainted with the general distribution of the place, the sound of music is a symptom of the immediate approach of Medicine, and serves to find out the Surgical corner.

When this has been achieved, the visitor's attention is at once attracted by the remarkably fine army medicine chest exhibited by Messrs. Savory and Moore. Everything which can possibly be of use in the course of military Medical practice is collected in that beautifully arranged and conveniently distributed square box, from the most active medicines, under a concentrated form, down to tea and sugar, those indispensable requisites to an Englishman's comfort. The neatness, convenience, and thoroughly British aspect of this ambulance medicine chest have been duly praised by connoisseurs, and have no doubt mainly contributed to the honourable distinction (a silver medal) bestowed upon these eminent chemists.

By the side of the medicine-chest are two ambulance panniers, which can be slung on the back of a mule, and, when joined, form a highly serviceable amputation-table, on which all kinds of operations can easily be performed. The panniers contain, of course, all that is requisite in Surgery—lint, cerate, splints, etc., etc., down to a stethoscope; although that instrument seems hardly to be of much importance to those who follow the actual movements of an army on the field of battle. These objects are also displayed in the military part of the English exhibition, which lies in the park.

Messrs. Savory and Moore are also represented in the Pharmaceutical Department, of which I shall give an account in its proper place.

The next object which meets the eye is an immense collection of artificial teeth, principally mineral, which are displayed in various ingenious combinations by Messrs. Lemâle, Ash, Ryder, and other dentists. Mineral teeth, as we shall presently see, also form a prominent part of the American Medical section.

We next light upon a series of figures and models exhibiting the intricacies of Dr. Roth's Gymnastic Medicine. In spite of numerous attempts to introduce a regular system of muscular exertion into Medical practice, gymnastics, properly so called, are too much neglected in France, and those whose constitutions require an active employment of their forces, generally prefer riding on horseback, fencing, and other equally amusing as well as profitable sports, to the formal exercises which are generally abandoned to professional artists and *pompiers* (firemen). But in a country which, like England, is so thoroughly devoted to *muscular religion*, it is natural enough that the science of gymnastics should meet with more liberal encouragement.

Respirators of various forms are conspicuous in the centre of the British Surgical collection, being chiefly exhibited by Messrs. Marsden and Co. These appliances are scarcely ever used in France, or at least by French patients, although in the winter stations of the Mediterranean coast almost every other person you meet wears one, proving sufficiently the vast number of English patients who spend the dangerous season in those well-sheltered spots. It would therefore seem that in this country people are rather sceptical as to their advantages; yet in cold or damp weather a Frenchman muffles himself up to the eyes in his thick neck-wrapper, and only inhales the air through a thick layer of cloth. Would not the convenient respirators adopted in England be of greater utility to delicate subjects? But the greatest fear of a Parisian is to make himself look singular, which he certainly would with this odd little apparatus protecting his mouth. In England, I suppose people have no such prejudices. Herniary bandages and elastic belts, some of them of a very ingenious and elegant construction, are exhibited by Mr. Salt, of Birmingham. But in this particular the French must be allowed by any impartial observer to have a decided superiority.

Artificial eyes for men and animals are exhibited by Mr. Pache, of Birmingham. Surely this gentleman ought to be rewarded by the Society for the Protection of Animals for thus endeavouring to restore the charms of their outward appearance. The specimens exhibited by the English manufacturer are highly creditable, but the artificial eyes of M. Boissoneau, of Paris, approach nearer to absolute perfection than anything of the kind which I have ever had the opportunity of seeing. Such has been the progress of art in this direction, that it is now totally impossible to distinguish a spurious eye from a natural one. Let young men beware of this; in future days an impassioned lover may, after the honeymoon, be horrified some unlucky morning by discovering, in a finger-glass, one of those fair eyes which made the conquest of his heart.

An interesting collection of objects connected with comparative anatomy is exhibited by Dr. Crisp, and placed in close proximity to the objects we have been describing. We mention it here, because it principally consists of the eyes of six hundred species of animals. It must, however, be confessed that, however interesting to the naturalist, Dr. Crisp's specimens, viewed as objects of art, are evidently inferior to those of professional eye-makers.

Artificial limbs, adapted to almost every kind of Surgical mutilation, are exhibited by Mr. Masters, of London, who has obtained a silver medal, and deserves a golden one. Some of these models are decidedly the best of their kind, especially the artificial arm and leg, which occupy the post of honour in their glass case. These objects are described by their talented inventor in a barbarous idiom, which appears to have been intended for French. It must be confessed that, with very few exceptions, the English *exposants* agree in possessing the most supreme contempt for the rules of French grammar, which, no doubt, all free-born Britons have a perfect right to despise. But the political convulsions of late years have sprinkled the hospitable shores of England with such a number of exiles, that it ought now to be an easy matter to translate Anglo-Saxon ideas into any foreign language.

The military ambulance system, which is to be seen outside the building, in the park, forms, perhaps, the most satisfactory part of the British Medical Exhibition. Both comfort, elegance, and solidity are realised in the carriages provided for the wounded, in the stretchers used to convey them from the field of battle, and in the various appliances brought to bear upon this most important branch of the service. In this respect, England is, in our opinion, decidedly superior to all other European states. The only objection which can fairly be raised against the British conveyances is their *weight*, a defect which they share in common with all other *ambulances* on this side of the Atlantic. The objection is a serious one at a time when no man knows in what part of the world military operations may become necessary; and the British system might be severely tested in a campaign on the frontiers of Bhotan, or in the pathless solitudes of Central Asia—not to say Abyssinia.

On the whole, the Medico-Chirurgical part of the English exhibition reflects great credit on national industry, and although the share of rewards which has fallen to its lot has perhaps been rather parsimoniously measured out, public opinion makes many a compensation for this comparative want of success.

The weather in Paris has of late been sultry, unpleasant, and stormy. Yet in spite of the prevalence of cholera in Northern Italy, no cases of that disease exist at present in this city. The only remarkable feature of the Medical constitution of July has been an epidemic of typhoid fever, which is still prevailing, and is characterised by an extraordinary abundance of the ordinary eruption, and by the coincidence of other cutaneous diseases. The cases are, however, all exceedingly mild, and the patients recover under all modes of treatment.

GENERAL CORRESPONDENCE.

SEA-SICKNESS—A PROPOSAL TO MEDICAL MEN ABOUT TO VISIT DUBLIN OR PARIS.

LETTER FROM DR. JOHN CHAPMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—About three years ago I published a small book entitled "Sea-sickness; its Nature and Treatment." The pathology of the malady therein expounded indicated that ice applied along the spine was likely to prove a remedy for the disease, and the work contains reports of seventeen cases in which the use of the spinal ice-bag was found to be wonderfully successful. Most of these cases were observed and recorded by myself during passages which I made across the English Channel for the express purpose of testing the reality of my discovery. The remedy has now been used in several cases of prolonged sea-sickness during long voyages, and its efficacy is found to continue unabated during the whole period of its use. Mr. S. M. Bradley, Surgeon, Cunard Service; Captain White, commander of one of the Newhaven and Dieppe boats; and Dr. Benjamin Lee, of Philadelphia, have published cases showing its efficacy.

A few weeks ago, a gentleman who had recently arrived from Shangai, and who came to consult me, gave me the following interesting particulars illustrative of the complete efficacy of the spinal ice-bag in a case of extraordinary severity:

—An English merchant, residing at Yokohama, came home, married, and took his wife back with him as far as Shangai. During the voyage to that place she suffered so fearfully from sea-sickness, and had become so exhausted and shattered by it, that great fears were felt of the results of continuing the voyage to Japan. They consequently remained at Shangai during many weeks, hesitating to proceed. Fortunately Dr. Parker, who resides there, and who was already acquainted with the therapeutical principles and practice which I have introduced, was treating patients by means of spine bags, and recommended the lady in question to make use of one of them, which he supplied to her, in order to enable her to continue her voyage to Yokohama without further suffering. I am told that the passage occupies five or six days, and that generally there is a brisk wind, and therefore lively sea, in that region. Dr. Parker subsequently received news of his patient, who arrived safely at her destination, and was informed that she found the spinal ice-bag most effectual in saving her from further sickness.

I may add that, according to the general testimony of patients, application of the ice-bag is not only remedial, but agreeable, and that while arresting the sickness, as well as any diarrhœa or cramps which may be experienced, it restores the impaired circulation of the blood to its normal standard, and thus the patient who may be cold, pallid, apathetic, and completely prostrate, quickly regains the ruddy glow, and the mental and physical energy of health.

Now, Sir, it seems to me of the utmost importance that the question of the efficacy of this method of treating sea-sickness should be settled so decisively and thoroughly that, if the remedy really be as effectual as it seems to be, the public may be encouraged forthwith to employ it, and thus avoid the incalculably great amount of suffering which sea-sickness inflicts. As many members of the British Medical Association are about to cross the Irish Channel in order to be present at the meeting in Dublin, and as many other English Medical men will probably attend the Medical Congress about to assemble in Paris, and will therefore be obliged to cross the English Channel, I beg to suggest that, on public grounds, as well as for the sake of their own personal comfort, those of them who are liable to sea-sickness should test the value of the spinal ice-bag as a means of preventing or curing the malady, and should publish the results of their experiments. In order to encourage them to do so, I shall be glad to lend a certain number of spinal ice-bags, with the understanding that each gentleman who avails himself of my offer will publish an account of his case, its treatment, and its result; and, for the sake of avoiding any difficulty or loss of time in procuring ice, I have arranged with Mr. Simpson, of 315c, Oxford-street, the proprietor of Ash's patent filtering refrigerator, to supply gratis a sufficient quantity of ice packed ready for transit to each Medical gentleman who desires to try the experiment as proposed.

Any gentleman who may apply to me for a bag will receive along with it full directions for its use, and a card, on presentation of which at Mr. Simpson's, he will obtain a small packet of ice sufficient for use while crossing either the Irish or English Channel. I am, &c. JOHN CHAPMAN.

London, 25, Somerset-street, W., July 29.

SANITARY REFORM: ITS INFLUENCE UPON A CITY AS A WINTER RESIDENCE, SHOWN AT SALISBURY IN TWELVE YEARS' EXPERIENCE.

LETTER FROM MR. A. B. MIDDLETON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Although the healthiness of a district may not be quite accurately measurable by its rate of mortality, it must be admitted that, as a single test of health, none more searching can be employed. Sickness and death bear proportions definite enough to justify the conclusion that the district which shows the smallest death-rate over an extended period of years must necessarily rank as one of the most healthy.

Continually hearing it stated that Salisbury city for health is a bad winter residence compared with other towns, I have taken some pains to try the statistical value of this statement by the mortality test, and find the following results of a careful examination of the Registrar's reports, which prove beyond question that, however true such statement formerly was, before sanitary works were done, it is now, and for some years past has been, an error. To make the truth evident, I propose to compare this city (District No. 264 in the Registrar's reports) with other places in the present, also with itself in the past. I place the latter comparison first, by giving in a tabular form the number of deaths in quarters ending March 31 for twelve years before and for twelve years after drainage and waterworks were done—the first series ranging from 1844 to 1853, and the second from 1856 to 1867, inclusively. The highest numbers are placed first:—

Deaths in Quarters ending March 31.

Before drainage.	After drainage.
107	73
80	65
77	63
77	56
76	54
68	54
67	54
65	51
63	50
54	49
52	47
43(a)	32
12 | 829 total.	12 | 648 total.
69 average.	54 average.

Upon comparing the deaths and births during the same two periods, some extraordinary results will appear:—

Twelve Winter Quarters before Drainage.

Births . . 819 Deaths . . 829

Twelve Winter Quarters after Drainage.

Births . . 867 Deaths . . 648

These figures plainly speak for themselves, as between "before" and "after" drainage. So material an alteration steadily continuing for twelve years can have been no accidental occurrence.

It will be seen that, since drainage, whilst the *total* births increased 48, and the *total* deaths decreased 181, the deaths actually exceeded the births by 10 in the winter quarters before drainage, but since drainage the births exceeded the deaths by the large number of 219.

Excess of deaths over births alone proved an unhealthy state, and, compared with other places, the *old* winter average of 69, being an annual death-rate of over 30 in 1000, was undoubtedly high, other towns being 27 in 1000. The *new* average of 54 represents an annual rate of little over 23 in 1000, which not only is low when compared with other towns, thus establishing for Salisbury a great superiority over them for winter quarters, but, what is very remarkable, places it upon an equality for healthiness with the country districts of the kingdom, their winter death-rate for long periods of years being the very same average of 23.

Thus favourably stands Salisbury when compared with its former self and with other places for many winters; but for the last winter, allowed to have been one of the most severe ever recorded, a decided pre-eminence must be claimed for it over other cities, also above even the country districts, as clearly justified by the following table:—

Annual Rate of Mortality for Quarter ending March 31, 1867.

For England	nearly 26 in 1000.
,, 13 large towns . . .	29 ,,
,, town districts generally .	27 ,,
,, country	23 ,,
,, metropolis	nearly 27 ,,
,, Salisbury	only 20 ,,

It may be remarked that this low death-rate, under the test of last severe winter, of 20 in 1000, is exactly that of the whole year averaged for 12 years since drainage, the *old* year average having been 27. It is further noteworthy that, even in 1866, when cholera generally prevailed and mortality ruled high, the citizens of Salisbury not only enjoyed perfect immunity from cholera, but the average of 20 was not exceeded.

Tried in various ways, accurate statistics clearly demonstrate, as far as mortality is a test, that for health, instead of being a bad winter residence, Salisbury city is precisely the reverse.

Freedom from death, usually *one-sixth*, during the past

(a) This exceptionally small number was in the winter quarter following the cholera of 1849, and may be accounted for: weakly lives having been carried off by the epidemic, fewer deaths occurred in the next winter. This was also true for the whole year 1850, when the deaths were more than one-third below an average.

winter was nearly *one-third* greater in Salisbury than in the other towns of the kingdom in general—a truth worthy to be known and remembered, forasmuch as, in old time, "length of days in the land" was deemed a chief blessing, so, in modern times, in the words of one of our closest observers, "The desire of long life is reasonable, and so universal as to be commonly considered instinctive. Longevity and happiness, if not invariably, are generally coincident."

I am, &c. A. B. Middleton.

The Close, Salisbury, June 3.

EARLY HISTORY OF CHOLERA—DESIDERATA.

Letter from Dr. J. Macpherson.

[To the Editor of the Medical Times and Gazette.]

Sir,—I entirely agree with you as to the extreme interest of Mr. Gaskoin's late contributions to the history of syphilis and of cholera. But in your remarks on the subject in your issue of to-day, I conceive you have been led into a misapprehension in saying as respects cholera, that "these writings date from the earlier portion of the 14th century." The Portuguese only reached India at the very close of the 15th century, and their earliest notices of cholera refer to the commencement of the 16th century.

It has of late been pretty generally known that D'Orta had published at Goa, in 1563, an account of cholera. As D'Orta was then advanced in years, and had lived in the East for more than a quarter of a century, and did not hint at the disease being a new one, it was fair to suppose that the disease had been known, at all events, from the year 1535. Mr. Gaskoin has, however, translated from the Portuguese a distinct notice of the disease occurring near Calicut in 1503. This is our earliest account of the disease within the period of European intercourse with India, and may be considered thirty to forty years older than former notices. But, what is of still more importance, he has made known the history of a very severe epidemic of cholera at Goa in 1543, which is the first distinct account of a virulent epidemic, and which, although it must have occurred in his time, is not mentioned by D'Orta.

I may take this opportunity of mentioning a few desiderata in the history of cholera, which possibly some of your readers may be able to supply.

1. Before the year 1781 there appears to be no notice of cholera in Bengal, except one by the Jesuit Père Papien, who, writing from Hooghly in 1709, incidentally mentions "mordechi" as one of the diseases of that part of India. Other notices of cholera in Bengal in early times would be very valuable, although in any case the old notion that cholera is to be considered an exclusive product of the Gangetic valley is pretty well exploded, and after a time must be entirely abandoned, even by its French supporters.

2. No notice has been discovered of the disease in Southern India from the year 1703 to 1756. It would be very desirable to have this gap filled up.

3. Although it is less important now that we have a distinct account of an epidemic at Goa in 1543, still it is to be wished that some Oriental scholar would examine the Mahomedan historian Kafee Khan, and tell us exactly what he says of a great epidemic which broke out in Aurungzebe's army before Beejapore in 1689, to which Grant Duff says the usual native name for cholera was applied. He might also ascertain whether there is any foundation for the native rumour that it attacked a detachment of Nadir Shah's invading army in 1737.

The early account of cholera and small-pox appearing in 1503 in the Portuguese wars with the Samorin, is a curious confirmation of what we have had too much experience of, that cholera has always been a disease of soldiers and of camps. I am, &c. J. Macpherson, M.D.

35, Curzon-street, W., July 27.

The late Professor Schroeder van der Kolk.—We regret to learn that Dr. H. W. Schroeder van der Kolk, Professor of Natural Philosophy at Zutphen, in Holland, and son of the late distinguished Professor of Physiology in the University of Utrecht, died a few days ago after a short illness. What makes the sad event still more distressing, is that it occurred only two days after the confinement of his wife. The death of this promising young man is a heavy blow to his family and friends, and a real loss to science.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 5.

Dr. Hall Davis, President.

The following gentlemen were elected Fellows of the Society:—Mr. W. Adams; Dr. A. Brown, Weymouth; Mr. Clarke, Mold; Dr. A. W. Ellis; Dr. J. Gittins, Brighton; Dr. Hadaway; Dr. Harris, Madras; Mr. Haviland, Bridgewater; Dr. Hickinbotham, Birmingham; Dr. H. G. Knaggs; Dr. La Fargue, Godalming; Mr. Langford; Mr. Leaf; Dr. Lithgow, Weymouth; Mr. Joseph Thompson, Nottingham; Mr. Thornton, Margate; Mr. Walters, Kingston; Dr. Llewellyn Williams, and Mr. E. F. Willoughby.

Dr. Brunton exhibited a Placenta, the subject of extreme fatty degeneration. Parturition had occurred shortly after the end of the seventh month.

Dr. F. Webb exhibited a specimen of Hydatidiform Degeneration of the Ovum.

Mr. Robert Ellis exhibited a new Expanding Speculum for operations on the cervix uteri. He described the instrument as one of an entirely novel and original construction; combining in itself all the various sizes of the ordinary specula, being capable of contraction to the smaller and of dilatation to far beyond the largest instruments in use. It was, he said, a bivalve speculum of the ordinary figure, and lighter, shorter, and handier to use than any of the present instruments. Its peculiarity consisted in an extraordinary capacity for dilating the external parts without injury, so as to give the Surgeon complete command over the vaginal canal and the cervix and lower part of the uterus. This was effected by the separation of the blades by means of a rack and pinion, while at the same time there was the ordinary power of expansion at the distal end of the instrument possessed by common specula. The instrument was manufactured for the author by Messrs. Meyer and Meltzer, and had, Mr. Ellis said, in his hands proved most successful in a variety of difficult operations; in its command over the vaginal canal, moreover, and in the full view of the cervix it afforded, it far surpassed the duck-bill speculum, while it dispensed with the need of an assistant.

Mr. Robert Ellis also exhibited a self-holding Tenaculum, for operations on the uterus. This instrument the author described as setting one of the operator's hands quite free, and had been used by him for several years. It consisted of a double hook of a peculiar curve mounted on a metal handle. In a slot up this handle a blunt hook, intended to catch over the edge of the speculum, moved to and fro by a milled screw at the bottom. The double hook was fastened into one of the lips of the cervix, and the blind hook in the handle was then screwed gently up and down until it had caught in the edge of the speculum. The cervix was thus held perfectly steady, and might even be drawn down some distance into the speculum if the screw were carefully and gently worked, without the least injury or pain. For almost every Surgical operation on the cervix the author considered this little instrument quite invaluable.

Dr. Halley read a paper on

A REMARKABLE CASE OF RETENTION IN UTERO OF THE GREATER PORTION OF THE SKELETON OF A DEAD FŒTUS FOR A PERIOD OF FOUR YEARS.

Mrs. E. H., aged 35, was always in good general health up to the time of her marriage, six years ago, with the exception of suffering from some dysmenorrhœa and occasional leucorrhœa. Three months after marriage she miscarried, and suffered from more or less uterine hæmorrhage about every fortnight for four or five months afterwards. In November, 1860, she again became pregnant, and suffered from a constant discharge for six weeks; she quickened in March, 1861, and was delivered of a dead child in July. She became pregnant for the third time in May, 1862; quickened in August, and over-fatiguing herself at that time in the Exhibition, a discharge occurred which continued for about a month, when the membranes gave way, and fleshy masses and offensive discharges came away daily for two months more, bones occasionally passing. She now suffered for some two months from slight discharge, but had no return of the catamenia. The discharges were occasionally offensive, and sometimes portions of bones were passed; this at last ceasing for several months. In May,

1863, she consulted Dr. Churchill, of Dublin, who considered that she had probably passed all that had to pass; but in two or three months more a rib came away, with much offensive discharge, which continued up to the time of her coming under the author's care, in February, 1866. She had had slight shivering on one or two occasions before passing the bones, but otherwise her health had been good. On digital examination the uterus was found large, anteverted, with shortened neck; the os slightly opened; the whole giving the idea that there was some abnormal substance within. On March 9, Dr. Hall Davis saw her in consultation with Dr. Halley, and injected some warm water into the uterus, which, however, brought away only stringy shreds, with coagula of blood, and the conclusion arrived at was that, without fully dilating the os, nothing could be done. She subsequently returned home to the north of Ireland, and again consulted Dr. Churchill, who approved of the proposed plan of dilating the os and exploring the uterine cavity. She then came back to London to place herself under the care of Dr. Halley and Dr. Hall Davis. On May 10, 1866, chloroform was administered, and a laminaria tent introduced and left in for twenty-four hours, a sponge tent being then substituted for twelve hours. The os being then tolerably open, Dr. Davis removed with a pair of long dressing forceps fifty-nine pieces of bone, the accompanying discharge being very offensive. On the following day twenty-seven additional pieces were removed, and one came away subsequently, making a total of eighty-seven. Each of the three manipulations took from two to three hours, during which she was kept under chloroform. Since the operation she had gone on perfectly well in every particular, the discharge had ceased, and menstruation was regular.

Dr. J. Braxton Hicks read a paper on

EXTRA-UTERINE FŒTATION TREATED BY ABDOMINAL SECTION: RECOVERY.

Mrs. C., aged 35, had been amenorrhœic about four and a half months, when she was seized with acute peritonitis, the effects of which had somewhat subsided about a month after, when Dr. Hicks saw her. The examination of the abdomen was very difficult, owing to its tenderness, but she complained particularly of the region to the right of the umbilicus. At this part a tumour was felt, which seemed to contain a solid mass within it. On a subsequent examination, a week after, this was more distinct, and it was evident on percussion that gas intervened between the parietes and the solid body within. A week after fluid had taken the place of the gas, and diarrhœa, with putrid evacuations, had occurred. Symptoms of irritative fever now became very urgent, and it was determined to remove the fœtus should examination under chloroform support the view which had from the first been entertained of its being a case of extra-uterine fœtation in communication with the intestines. Under chloroform the case was much more readily made out. The cyst could be clearly defined; it was about six inches in diameter, reaching from near the umbilicus to the right flank, and having its centre upon a level with the umbilicus. The most tender spot was fixed upon for incision, which was carefully made down to the peritoneum. This was found adherent to the cyst. It was carefully opened, and a quantity of offensive gas issued. On looking within, the fœtus was seen. The wound was then enlarged to the extent of two inches, guided by exploration of the finger, so as not to extend beyond the line of adhesion. The fœtus, much decomposed and putrid, about the size of four and a half months' development, was carefully removed by an ovum forceps. A few ribs had become detached, and were then removed. The placenta being adherent deeply and firmly, it was allowed to remain, to come away gradually. The cyst was then washed out with weak Condy's solution, and a wire suture capable of being unfastened was placed in the centre of the wound. The placenta came away in a state of decomposition in portions daily up to the end of the fifth day, by which time purulent took the place of putrid secretion. The cyst was washed out every day for a fortnight, when all fœtor ceased. A pad was placed on the exterior of the cyst, supported by a bandage, to facilitate the escape of the pus. By the end of five weeks the walls of the cyst had united, and by the end of seven weeks the wound was closed. The health of the patient improved rapidly; the vomiting, very severe before the operation, ceased immediately; by the end of two months she was able to be about, and shortly after was in complete health. Dr. Hicks then alluded to the value of abdominal section where the cyst had formed communication with the intestine; at the same time remarking on the care which should be employed in making the opening through the parietes, lest it extend beyond the line of adhesion, for in a similar case in which he had operated it was found that the portion adherent was small compared with what might be expected after so great an amount of irritation. He thought that the best guide was to open at the point of greatest tenderness, and to extend under the guidance of the finger passed within. To prevent the peritoneum being opened, as well as to avoid hernia after recovery, it was advisable to make the opening as small as possible, removing the fœtus carefully, and, if necessary, piecemeal.

Mr. Philip Harper fully agreed in the high value and importance of the case which had just been recorded. Speaking generally, he thought we might, as regards operative treatment, divide these cases into two classes. One class would include those cases in which there were more or less severe attacks of peritonitis, producing adhesions to the abdominal walls and other surrounding parts, and in which, should the woman survive, there is an effort made to get rid of the fœtus by suppuration. The other class included those cases where the fœtus escaped suddenly, producing fatal hæmorrhage or fatal peritonitis. The case which had just been read, and others by the same author, belonged to the first class, and Mr. Harper considered that there could be no doubt that opening the sac formed by peritoneal adhesions was a safe and philosophical plan of treatment, and one always to be adopted when feasible; but he would go further, and inquire whether we should not extend this line of practice to the second class of cases, and open the abdomen freely in those cases in which there was no doubt that the fœtus was not contained in the uterus, and where the woman was liable to rapid death at any moment, and not wait for peritonitis to produce adhesions. In conclusion Mr. Harper referred to the knowledge that had been acquired during the last few years of the means of arresting hæmorrhage in the abdominal cavity as being of much importance in reference to cases of extra-uterine fœtation.

After some remarks by the President and Dr. Greenhalgh, Dr. Hicks, while thanking the Society for their kind reception of his paper, yet felt unable to coincide with the views expressed by some of the speakers. He thought that if the records of the cases of extra-uterine fœtation were observed (and there were many now accumulating in the *Transactions*) it would be seen how very full of danger it would be to attempt to remove the fœtus by abdominal incision before the cyst was adherent to the parietes. The attachment of the placenta was so delicate and so awkwardly placed that attempts to remove it would produce uncontrollable hæmorrhage. Dr. Hicks therefore thought it necessary to urge extreme caution in attempting to remove the fœtus by abdominal section before we were urged to do so by the severity of the symptoms.

Dr. Robert Barnes read a paper entitled

CASES AND REMARKS ILLUSTRATING THE HISTORY OF PREGNANCY COMPLICATED WITH SMALL-POX.

In pursuance of a suggestion urged by the author to collect the experience of the Society relative to the complication of pregnancy with zymotic diseases, the present contribution was made. The histories of three cases were given. Amongst the questions raised were these:—What is the influence of small-pox upon pregnancy? In what way does small-pox excite labour? In the cases narrated, labour set in prematurely. The children were born alive. The poison, therefore, does not always act primarily upon the embryo. It is a law of very wide application that nature hardly tolerates the concurrent progress of an active disease and pregnancy. In zymotic disease, the poison, aggravated by the poison of impeded excretory function, acts upon the whole system, increasing the irritability of the nervous system, impeding nutrition, including that of the uterus, and directly irritating this muscle. Blood charged with carbonic acid was proved by Marshall Hall and Brown-Séquard to be especially provocative of contraction in the involuntary muscles. The author had observed that pregnant women suffering from asphyxia, chronic or acute, were certainly apt to abort. The blood in fever wants oxygenation, in this respect resembling the blood in asphyxia. This is probably the chief cause of premature labour. The author pointed to a difference between acute and chronic blood-poisoning. In acute disease, where respiration is impeded and the blood is rapidly poisoned, the first effect is upon the uterus. In chronic poisoning, as in secondary syphilis, the embryo may be first affected; its nutrition is sapped, it perishes, and then uterine development being arrested, and involution commencing in a period varying from seven to twenty-one days, contraction sets in, and the dead fœtus is expelled. Premature labour might also be caused by the shock. To what extent is the life of the

mother endangered? What is the influence of pure variola, as compared with that of modified variola? The chief danger probably arises in the puerperal state. The mothers recovered in the cases narrated. What is the influence upon the fœtus as to infection? The practical question was discussed whether the safety of mother and child be enhanced by inducing labour. The author was disposed to answer this affirmatively, and considered the best way was by the insertion of a flexible bougie into the uterus.

Mr. Benson Baker had had seven cases of pregnant women under his care during the past winter who had taken small-pox and miscarried; they were all delivered of living children, but, with one exception, all the children died. None of the children had variola when born, but a modified or abortive eruption came out within from three to eight days after birth. He could not but think that the effect of variola on the unimpregnated uterus might aid in elucidating some of the interesting and important suggestions of Dr. Barnes. He had observed cases in which amenorrhœa had existed for several years, and under the influence of variola an excessive menstrual flow had occurred; and others in which young girls from ten years of age and upwards, who had never menstruated, had done so on the eruption of small-pox. And lastly, he referred to other cases in which the catamenia had been established by the variola, but in which the amenorrhœic condition subsequently returned.

Mr. Streeter, as a visitor, would avail himself of the President's invitation to take part in the discussion, having long taken an interest in this subject. He had himself read a paper upon it before the Westminster Medical Society nearly thirty years ago, and in that paper, he believed, was contained the earliest recorded case in this country of small-pox after vaccination occurring with pregnancy. Referring for details of his case to the printed record, he would only now state some of his conclusions, regretting that so little had been added to our knowledge of this complication since that time. One important point then shown was, that the child did not pass through the disease at the same time as the mother, but had it eight or ten days later at least. As the fœtus formed its own blood from absorbed material, so it incubated its own zymotic poison, and failed with the disease later than its parent. Hence, when born during the primary or eruptive fever of the mother, it had no eruption; and it was not until after her secondary or maturating fever was nearly or quite over that the child could exhibit pock marks at birth, and if so it was usually dead. Another point of interest was, whether children born after their parents had survived attacks of small-pox after vaccination would be susceptible of the vaccine. In two children so born he failed to produce any vesicle from punctures made the day after their birth, but in the last one he succeeded some months after in producing a regular vesicle with characteristic induration and areola. The complication of natural small-pox was far more dangerous than that of variola after vaccination. Of this he had seen only one case; in this the eruption was confluent, and the woman died undelivered. Mr. Streeter also advocated revaccination after puberty, because, as small-pox may occur twice, so may small-pox occur after vaccination; and in conclusion, he referred to one especial danger of small-pox in the female—the occurrence—namely, of profuse menstruation during the eruptive fever, leading to prostration and a recession of the eruption.

Dr. Madge said that the third volume of the Society's *Transactions* contained a short paper by him on a case of small-pox in twin fœtuses, and in the remarks appended to that case he believed he had anticipated a good deal that had been said in this discussion. At present the subject was perhaps more of a theoretical than a practical one. In the paper referred to, however, he had made what he believed was a novel suggestion, and which he would now repeat—namely, the necessity or advisability of recommending all pregnant women during epidemics of small-pox to be vaccinated or revaccinated, so as to extend the protective influence of vaccination through the blood of the mother to the child in utero.

Dr. Barnes, in answer to Dr. Madge, thought that it might be desirable to revaccinate pregnant women who were specially exposed to infection during an epidemic, but that as a general rule it was not called for.

We have heard with regret that Assistant-Surgeon J. T. Tullock, M.D., of the 42nd Highlanders at Peshawur, has died during the present epidemic of cholera.

OBITUARY.

THE LATE MR. R. H. A. HUNTER, FIRST-CLASS STAFF-SURGEON.

(*From the Scotsman.*)

We learn, with much regret, the death at Dollar, on June 22, of First-Class Staff-Surgeon Robert Hope Alston Hunter, in the sixty-second year of his age. This officer—the third son of the Rev. William Hunter, of Middlebie 8after serving for a short time at Barbadocs in 1829, joined h Majesty's 2nd or Queen's Royal Regiment at Bombay in 1 31, and continued with it till 1843. During this period, the regiment occupied in succession the several stations then allotted to European troops in the Bombay Presidency; and formed part of the force which, in 1838 and 1839, under Lord Keane, advanced on Cabool by Scinde, Cutch Gundava, the Bolan Pass, Candahar, and Ghiznee, and returned, under command of General Sir Thomas Willshire, by Quetta and Kelat. This regiment acted a prominent part in the storming of Ghiznee and Kelat; and after, in the course of fifteen months, exclusive of river and sea voyages, having marched 2039 miles, reached Deesa on April 4, 1840. Not only did Mr. Hunter, as Surgeon in charge of the Queen's, take part in these stirring and eventful scenes, but such was the scarcity of Medical officers that he at the same time held charge of detachments of horse-artillery and of general staff details, and for a short period of her Majesty's 17th Regiment.

In 1843, Mr. Hunter was for a few months in England; but early in 1844 he returned to India to the charge of the 57th Regiment, at the time stationed at Madras. Now, however, prolonged service in India, combined with a never-ceasing assiduity in the discharge of public duties, and in the study of Medical science in all its varied relations, began to tell even on a constitution naturally robust, and Mr. Hunter was in consequence obliged to leave India in 1845. He afterwards served at St. Vincent's, in the West Indies, as First-Class Staff-Surgeon, left it in 1849, and was for a short time Staff-Surgeon at Bristol. About fifteen years ago, after twenty-five years' continuous active service, he, in consequence of impaired health, retired on half-pay. Mr. Hunter contributed largely to Medical literature, and has thereby bequeathed to us undoubted evidence of high professional attainments. He was, as we have seen, for upwards of twelve years continuously with the Queen's in India under much variety of climate and of circumstances; and during the whole of this period he pursued a course of close, unremitting investigation of the diseases which passed before him, so that there is hardly a question relating to the health of the soldier in India which has not received light from his sagacious mind. In a valuable "Statistical Review of the Climates of the Principal Stations for European Troops in the Bombay Presidency," we have a masterly analysis of the varying conditions of climate from season, elevation, position, etc., in their relation to health as predisposing and exciting causes of disease; and we have in the year 1841 enunciated, as the result of carefully prepared statistical data and the clinical study of disease, the doctrine, that with the careful selection of stations for European troops, and "with due care in making the reliefs from the low countries, the mortality would little exceed that of England." This, we need hardly remind our readers, is exactly the result arrived at in the year 1862 by the Royal Indian Sanitary Commission. In 1831, when the use of the stethoscope was slowly making way in our Medical schools, and was almost confined to the immediate pupils of Laennec, we find Mr. Hunter patiently working out for himself in the Queen's Hospital in India the physical signs of cardiac and pulmonary disease, and his published cases may still be regarded as good illustrations of accurate observation and graphic description. In the course of this inquiry, he was struck with the frequency of cardiac and aortic disease in the regiment, and became satisfied that the active duties which the soldier undergoes whilst buttoned up in his accoutrements was a very efficient cause in producing it. On this subject, in 1836, he remarks—"It seems extraordinary that, now the effects of tight-lacing on females are so well known, a soldier intended for the most active and long-continued exertion should be placed in a similar predicament, when that very exertion is required. Is it possible he could be placed under more unfavourable circumstances?" Nor did Mr. Hunter, in his zealous pursuit of the symptomatology, pathology, and etiology of disease, neglect

the subject of treatment. He was amongst those who early discovered that a great error had been committed in withholding bark in the treatment of fever in India, and in 1840 he writes:—"This plan of beginning as early as possible with the quinine in remitting fever I have been led into gradually for some years back." There is, moreover, no want of evidence of aptness in and familiarity with the Surgical department of his duties, and certainly no tendency to magnify his office. For example, after the storming of Ghiznee, Mr. Hunter writes:—"The Queen's lost most, and that only amounted to three killed and three who afterwards died of their wounds. The list of wounded indeed appears large—nearly two hundred in all—but in these days we were young soldiers, and all scratches were counted." The bearing of regimental discipline and internal economy on the health of the soldier was always considered by Mr. Hunter with much judgment and independence. He knew that discomfort and hardship were inseparable from long marches on active service in the half-civilised countries of Central Asia; therefore, in his narrative of the march of the Queen's from the mouth of the Indus to Cabool and back again, he writes as if it were a holiday procession—not a whisper of complaint escapes him. But when in 1844, in times of peace, in garrison at Madras with the 57th regiment, he saw much in the system to condemn, he was prompt and distinct in exposing it. The most interesting of Mr. Hunter's writings—at all events to the general reader—is "The Medical History of the Queen's Royal Regiment during the Campaign in Afghanistan." The physical characters of the countries through which they passed are described with the graphic pen of an experienced and faithful observer of nature; while the military incidents of the march, and the exciting scenes of actual conflict, are depicted with the apprehension and the spirit of an ardent soldier. We have no space for further details; but enough, we trust, has been said to show that in studying the character, the writings, and the career of Mr. Hunter, the young Medical officer will have before him the exemplar of a high-toned officer and of an accomplished and indefatigable Physician. The following is a list of Mr. Hunter's principal published writings:—"Historical Reports of H.M.'s 2nd or Queen's Royal Regiment for the Years from 1833 to 1842, including the Campaign in Afghanistan;" "Cases of Cardiac and Pulmonary Disease;" "Statistical Review of the Climates of the Principal Stations for European Troops in the Bombay Presidency;" "Medical Report of H.M.'s 57th Regiment, in the 1st, 2nd, 3rd, 4th, 5th, and 7th volumes of 'The Transactions of the Medical and Physical Society of Bombay;'" "Annual Report, with Copious Statistics, of St. Vincent's, West Indies"—*London Medical Gazette* for 1849.

DEATH OF PROVOST ADAMS.

It is with deep regret that we record the death of Dr. Alexander Maxwell Adams, Provost of Lanark, at his house, on the afternoon of Wednesday last. The suddenness of the event adds to the poignancy of our sorrow, and we deeply sympathise with his widow and family under their bereavement. In the family circle will be missed one of the kindest and most indulgent of parents; and although there his loss will be greatest, the community at large will feel keenly the absence of the familiar form, the kindly remarks, and the ear ever open to listen to grievances, and the mind ever ready to do its utmost for their redress. The Provost had only returned from a fortnight's tour to London and the Paris Exhibition on Saturday last, and on Monday he was walking about hale and hearty. Towards evening he complained of diarrhœa, which had annoyed him since his return, slightly. He took to bed, and, notwithstanding the unceasing attentions of his son and some of his brother Medical Practitioners, died on Wednesday afternoon. There can be little doubt that at his age (fifty) the great exertion and heat he underwent, coupled with an entire change of diet, must have had the effect of exhausting his system. As a Medical man Dr. Adams was at the head of his Profession. He left Glasgow and came to Lanark about fifteen years ago, chiefly, we understand, for the health of his family; and there can be little doubt that his talents would have made him eminent in a much wider sphere. He delivered one or more courses of lectures in the Andersonian University, previous to his leaving Glasgow, which were marked by great ability. About seven years ago he was elected Provost of the burgh without the necessity of going through any period of service as a councillor or magistrate; and the acceptancy with which he served the community was very strongly demonstrated by a public banquet and presentation about three years ago, when he received the gift, subscribed for by all members of the community of every shade of opinion, of a handsome carriage, silver service, etc., costing about £200. He has all along shown deep interest in the welfare of the burgh. In politics, he was a consistent and upright Liberal; and, as chairman of the Liberal Committee of the burgh, expressed himself in eloquent and statesmanlike language on political subjects. It will be difficult to find such an energetic supporter of the Liberal cause. The feelings of regret at his sudden demise caused a special meeting of the Council to be called on Thursday evening—Bailie Wood in the chair—when the following resolutions were adopted:—The Council resolve to enter on their minutes an expression of their deep sorrow at the sudden death of their much-respected Provost, to bear testimony to his general excellence and amiability of character, to the candour, integrity, and impartiality with which he presided over the deliberations for nearly seven years, and to the great interest which he ever manifested in promoting the best interests of the community, and would desire to convey to his widow and family their sincere and heartfelt sympathy in their bereavement. They further resolve, if agreeable to the wishes of his family, to attend the funeral as a public body. It was further resolved to have the pulpit of the parish church and Council gallery hung with black the first Sunday after funeral, and to attend the church as a body. This to be intimated to the Rev. Alex. M'Glashan. A remit was made to the magistrates to carry out these arrangements, and the resolution to present his heirs a burying place in the new part of the burying ground.—*Hamilton Advertiser.*

MEDICAL NEWS.

University Intelligence.—University of London.—The following are lists of candidates who passed the respective examinations indicated:—

First B Sc. Examination.

First Division.—James Bottomley, B.A., Owens College; Francis James Carey, M.A., Guy's Hospital; William Gunn, private study; Percy John Harding, University College; John Hopkinson, Owens College; Arthur Robinson, Owens College; William Augustus Tilden, private study; Richard Wormell, M.A., University College.

Second Division.—James Barry Ball, University College; Seward William Brice, B.A., Royal School of Mines; John Albert Bright, University College; John Cameron Graham, University College; Rev. Fredk. Leonard, M.A., LL.B., Baptist Bristol, and University; Henry Manler Pearsall, B.A., New and University Colleges; Charles Sheldon, B.A., Owens College; William Thorp, Royal School of Mines; George Mathews Whipple, private tuition.

Preliminary Scientific M.B. Examination.

First Division.—Edward Bibbins Aveling, private study; James Barry Ball, University College; Fredk. Settle Barff(a) (student before 1839), University College; John Mitchell Bruce, M.A. Aberd., University of Aberdeen; William Barratt Burn, St. Bartholomew's Hospital; Charles Henry Carter, University College; Ernest Alfred Elkington, Spencehan College, Birmingham; Alfred Thomas Gibbings, King's College; James Alfred Harris, University of Edinburgh; Michael Harris, Guy's Hospital; Horace Eyre Haynes, St. Bartholomew's Hospital; Thomas Henry Hunt, Manchester Royal School of Medicine; Arthur Richard Saunders, University College; Alfred John Wall, St. Mary's Hospital.

Second Division.—Philip Henry Bindley, Sydenham College, Birmingham; Wm. Frederick Richardson Burgess, Guy's Hospital; William Ward Carr, University College; Alfred Henry Carter, University College; Alfred Cotterill, King's College; Sidney Coupland, University College; Francis Richardson Cross, King's College; Henry Eugène De Méric, King's College; John Ellis Edwards, Guy's Hospital; Thomas Colcott Fox, University College; George Cooper Franklin, St. Thomas's Hospital; John Cameron Graham, University College; George Ernest Herman, London Hospital; Joseph Theodore Ingoldby, Guy's Hospital; Thomas Jones, Guy's Hospital; Walter George Lowe, St. Bartholomew's Hospital; Robert Wishart Lyell, King's College; Henry Davis Male, St. Thomas's Hospital; William Smith Paget, Liverpool School of Medicine; Charles Edward Steele Perkins, Guy's Hospital; Walter Pippette, Westminster Hospital; Rhinallt Nawdw ap Joan Paghe, private study; Alexander Antonio Ralli, St. Bartholomew's Hospital; John Alexander Rayner, King's College; George Le Hunt Rowland, King's College; Baron Alfred Ruge, University College; Maximilian Frank Simon, St. Thomas's Hospital; Samuel George Sloman, St. Bartholomew's Hospital; Arthur William Smith, Guy's Hospital; Henry Edward Southee, private tuition; William Whitehurch Taunton, University College; Henry Edward Waddy, Guy's Hospital; William Henry Wilkins, University College; William Williams, Guy's Hospital

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the Diploma were admitted Members of the College at a meeting of the Court of Examiners on the 25th ult., viz.:—

Messrs. Lewis Evan Evans, Granville-square; Edward Henry McClean, Barbadoes; and Edgar George Pottle, City-road (students of St Bartholomew's Hospital); Joseph Gerson Da Cunha, Goa; Antonio Simplicio Gomes, Hong Kong; and Attnaram Sadashiva Jayakar, L.R.C.P. Lond.,

(a) Chemistry and Botany only.

Bombay (of the Bombay School); Walter Herbert Mills, Cape Town; George Thomas May, Burslem, Staffordshire; and George Mannings, Downton, near Salisbury (of King's College Hospital); Frederick Henry Blenkinsop, Bedford; and Thomas Henry Lovegrove, Nottingham (of St. George's Hospital); John Strelley Carslake Yule, Bury, Lancashire; and William Richard Davies, M.B. Lond., Carmarthen (of University College Hospital); James Dunne, Dunshaughlin, co. Meath; and Henry Worsley, Golborne, Lancashire (of the Dublin School); Frederick Wallace, L.S.A., Hackney-road (of Guy's Hospital); Laurence Saunders, M.D., Kingston, Canada; Charles Richardson, Leeds (of the Leeds School); John Waterhouse Daniel, M.D., Bellevue, New York, Nova Scotia (of the London Hospital); John Stride, King William-street, E.C. (of St. Thomas's Hospital); William Edward Baylis, Poole, Dorset (of the Charing-cross Hospital); Donald William Robertson, Thornton, Yorkshire (of the Edinburgh School); and Kenrick Morton Lloyd, Holywell, Flintshire (of St. Mary's Hospital).

It is stated that only nine out of the seventy-four candidates who presented themselves for examination during the past week failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their Hospital studies for the full period of six months. The examinations for the present session at the College of Surgeons are now closed.

The following gentlemen, having undergone the necessary examinations, received their diplomas in Dental Surgery at a meeting of the Board on the 31st ult.:—

Benjamin Wright Freeman, Burwood-place, Hyde-park; Samuel Kearsley Thompson, Highgate Kendal; Henry John Hooper, Tolmer-square, Hampstead-road; and Henry Moon, M.R.C.S. Eng., Camden-road, Camden-town.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 25, 1867:—

Thomas Henry Pinder, Whitby, Yorkshire; William Wingate Saul, Sibsey, Lincolnshire; John Grey, Workington, Cumberland.

The following gentlemen also, on the same day, passed their First Examination:—

Edmund Vialls, London Hospital; John Harris Ross, Guy's Hospital; William Percy Bridges, Guy's Hospital; William Howard Nicholls, Guy's Hospital; Edwin Sanders, St. Bartholomew's Hospital; Enoch Snell, University College Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DUDLEY, J. G., M.D., has been appointed Assistant-Physician to the Metropolitan Free Hospital, Devonshire-square, E.C.

HILL, J. H., L.R.C.P. Edin., has been appointed House-Surgeon to the Royal Free Hospital, Gray's-inn-road.

LOMBE, Dr., has been appointed one of the Honorary Physicians to the Infirmary, Torquay.

BIRTHS.

CARTER.—On July 21, at 4, Clarence-terrace, Leamington, the wife of T. A. Carter, M.D., of a daughter.

CROKER.—On July 28, at Dover Castle, the wife of Dr. A. Croker, Assistant-Surgeon, R.A., of a son.

MADGE.—On July 25, at 32, Fitzroy-square, the wife of H. M. Madge, M.D., of a daughter.

ROUSE.—On July 25, at Hache Court, near Taunton, the wife of R. A. Rouse, M.R.C.S., of a daughter.

RUSSELL.—On July 28, at Neston, Cheshire, the wife of D. Russell, M.D., of a daughter.

TAYLOR.—On July 24, at Rose-hill, Freshwater, Isle of Wight, the wife of H. Taylor, M.D., of a daughter.

MARRIAGES.

MORRIS—BOTTELEY.—On July 25, at St. James, West Bromwich, by the Rev. Francis Parker Sockett, M.A., Incumbent, Pryce Jones Langford Morris, Osbournby, Lincolnshire, eldest son of the late Pryce Morris, Esq., Oswestry, Salop, to Isabella Frances, youngest daughter of the late Thomas Botteley, Esq., Black Lake-house, West Bromwich, Staffordshire.

PRIDHAM—CORNELIUS.—On July 12, at Broadway, Dorset, J. W. Pridham, F.R.C.P.L., to Alexina, widow of A. K. Cornelius, Esq.

DEATHS.

ADAMS, A. M., M.D., L.R.C.S. Edin., at Lunark, N.B., on July 24.

BENROW, J., M.D., F.R.C.S., at Fort Beaufort, Cape of Good Hope, on June 2, aged 46.

MCFALL, ABIGAIL, the beloved wife of D. C. McFall, Assistant-Surgeon H.M. 34th Regiment, at sea, off the Island of Ascension, on June 8, aged 25.

MCFALL, C. T. J., the beloved son of D. C. McFall, Assistant-Surgeon H.M. 34th Regiment, at sea, off the Cape of Good Hope, aged 4 years.

MCLOSKEY, P., M.D., at Waterloo, Lancashire, on July 17.

NELSON, H., M.D., at Dunedin, Otago, New Zealand, on May 18, aged 33.

SHEKLETON, R., F.R.C.S.I., at 59, Upper Leeson-street, Dublin, on July 26, in his 79th year.

VACANCIES.

FINSBURY DISPENSARY.—Resident Medical Officer.

NORTH LONDON CONSUMPTION HOSPITAL.—Physician.

BEDFORD INFIRMARY—Surgeon.

ROYAL MANCHESTER EYE HOSPITAL.—House-Surgeon and Secretary.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Apothecary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Alcester Union.—Mr. Joseph Morris has resigned the Inkberrow District; area, 7992; population, 1818; salary, £60 per annum.

Newark Union.—Mr. John Alderson has resigned the Foston District; area, 7868; population, 1322; salary, £14 per annum.

Ongar Union.—Mr. W. C. Dempsey has resigned the Second District; area, 6309; population, 1396; salary, £55 per annum.

APPOINTMENTS.

Battle Union.—Roger Duke, M.R.C.S.E., L.S.A., to the First and Second Districts and the Workhouse.

Blackburn Union.—William H. Stephenson, M.D. Edin., L.R.C.S. Edin., to the third Blackburn District.

Bridgewater Union.—Edward Carse, L.R.C.P. Edin., L.F.P. and S. Glas., to the Middlezoy District.

Halifax Union.—James Holt, L.R.C.P. Edin., L.S.A., to the Ovenden District.

Martley Union.—Thomas M. Warden, M.R.C.S.E., L.S.A., L.M., to the Astley District.

St. Faith's Union.—William Woodhouse, M.R.C.S.E., L.S.A., to the Norwich District.

Teesdale Union.—John Mitchell, M.D. Glas., M.C. Glas., to the Barnard Castle District and the Workhouse.

Totnes Union.—Joseph T. Cape, M.R.C.S.E., L.S.A., to the Halwell District.

Wellington (Som.) Union.—William Reynolds, M.R.C.S.E., L.S.A., to the Workhouse; Frederick E. Pearse, M.R.C.P. Edin., M.R.C.S.E., to the Sixth District.

THE PRINCESS OF WALES.—It is reported that her Royal Highness has accepted the invitation of the Duchess of Sutherland to spend a few weeks at Castle Leod with the object of trying the curative effects of the Strathpeffer waters. These latter are said to have extraordinary therapeutic powers, and to be especially suitable to rheumatic sufferers.

THE EMPRESS CHARLOTTE POISONED?—The *Mémorial Diplomatique* publishes an absurd rumour to the effect that the insanity under which the unfortunate Empress now labours is the result of a "subtle poison" administered to her before leaving Mexico by some of the traitors to the Imperialist cause. It is stated, too, that the Physicians intend to administer some peculiar alterative, which is to have the miraculous effect of neutralising the poison!

MR. EDWIN CHADWICK, C.B., has been spoken of as a fitting representative for the University of London. As a thorough man of business, and one who has paid the most exhaustive attention to the science of preventive Medicine, he certainly deserves consideration, though we fear his claim is brought forward somewhat late.

FRIDAY WEEK'S RAINFALL.—Mr. Glaisher states that the rainfall on Friday, July 26, was greater than has ever been recorded in twenty-four hours at the Royal Observatory.

CESARIAN OPERATION WITH SUCCESSFUL ISSUE.—Dr. Poupart, of Ypres, laid the particulars of this case before the Belgian Academy of Medicine. The subject of it, twenty-four years of age, and of small stature, had been delivered two years since of an infant somewhat before its full time with great difficulty, on account of the narrowness of the pelvis. Recommended, in case of another pregnancy occurring, to apply in time to have premature labour brought on, she neglected doing so, and Dr. Poupart only saw her after labour had actively set in with a full-timed infant. The forceps had been attempted to be applied in vain, and a portion of the small intestine descended through an aperture in the vagina as low as the vulva. There was also retention of urine, catheterism having been rendered impossible by the pressure of the head against the symphysis pubis. The Cæsarian operation was performed, and a living child removed. The bladder was evacuated, and the placenta presented itself at the mouth of the wound, the uterus immediately contracting. The protruded intestine was returned and covered with the omentum. The woman continued in a state of great prostration for many hours, but then rallied, and plenty of milk was secreted. The wound healed very promptly, the ligatures being all removed by the seventh day. The utero-vaginal rupture also readily healed. Measured by Van Hoevel's pelvimeter, the antero-posterior diameter was found to be but six centimetres, or three centimetres less than the biparietal diameter of the child's head.—*Presse Belge*, July 21.

Distribution of Prizes at St. Mary's Hospital.—The distribution of the prizes won by students of St. Mary's during the past session took place in the theatre of the school on Monday last. The meeting was presided over by Dr. Alderson, F.R.S., who presented the successful students with their laurels, and delivered an address to a large audience of ladies and gentlemen. The history of the school was the subject of Dr. Alderson's remarks, and it was dealt with in an able manner. The system of education which is now becoming characteristic of St. Mary's was also touched on, the tutorial method being regarded by the speaker as more fully calculated to advance Professional knowledge than the mere collegiate or professorial system. Dr. Alderson alluded to the provision now being made by the authorities for the establishment of special Hospital departments, as those for diseases of women, of children, of the throat, and of the skin, and deprecated in decided terms the dissociation of special branches—which he styled "mere clippings" from the great tree of Physic—from the subject of general Medicine. After referring to the newly instituted lectureships of mental diseases (Dr. Mandesly) and of Surgical bandaging, and to the microscopical laboratory now attached to the school, Dr. Alderson concluded his address with the usual moral peroration concerning the future path of the student.

Metropolitan Poor-law Medical Officers' Association.—At the annual meeting held on Tuesday, July 30, the following resolutions were adopted:—1. That the report of the Council be received and adopted, and that the recommendations of the Council be carried out—viz., that the rules as revised and now read be the rules of the Association: that members be admitted in future without payment of entrance fee; that a third order of members be created to be called Associates, such associates being Poor-law Medical Officers residing without the metropolitan district, and that the annual subscription of an associate be 5s. 2. That the Association having considered the present practice of taking pauper lunatics before a police magistrate, is of opinion that it is fraught with evil, often gives rise to painful scenes in court, and, in the case of recent mental disease, is calculated to prejudice the patient's prospects of recovery by creating an impression that an offence has been committed. The Association recognising with satisfaction the fact that the Commissioners in Lunacy object to the practices in question, request the Council to use their best endeavours to obtain an alteration in it, so that every lunatic may, if possible, be visited by a justice or clergyman at the workhouse. 3. That the Council be requested to take steps to ascertain what is the duty of the Medical officer of a workhouse with respect to giving certificates of insanity (Schedule F, No. 3 to 16 and 17 Vict., c. 97) for pauper lunatics, having special reference to Section 67 of that Act, and Section 20 of the 25 and 26 Vict. c. 111, and to report upon the subject at the next general meeting of the Association. 4. That the President do sign the petition to the House of Lords now read, in favour of the Bill to render the Poor-law Board permanent. 5. That the thanks of the Association be presented to the officers and Council for their services during the past year, and to the President for his conduct in the chair at the present meeting. Dr. Rogers presided on the occasion. We shall take an early opportunity of returning to this subject.

Present to Mr. C. E. Smith, of the "Diana."—We have pleasure in noticing a presentation of a purse of gold and a silver inkstand by the Medical Profession of Hull to the Doctor (Mr. C. E. Smith) of the *Diana*, who so nobly fulfilled the exceptionally arduous duties on board that vessel during her late perilous voyage. The inkstand bears the following inscription, and was purchased at the establishment of Mr. Bethel Jacobs, 7, Whitefriargate, Hull:—"Presented with a purse of gold to Charles Edward Smith, late Surgeon of the whale ship *Diana*, by the Medical Profession of Hull, in recognition of his services to their fellow-townsmen under circumstances of extreme peril, privation, and difficulty. July, 1867."

The Poisonous Action of Phosphorus.—Contrary to the current doctrine that death in case of poisoning by phosphorus results from fatty degeneration of the liver, produced by phosphorous acid, M. Dybkowsky states in a recent memoir that the toxic result is entirely due to the formation of phosphuretted hydrogen gas, which in passing through the blood completely uses up the oxygen present. Hence he concludes that death from phosphorus is nearly equivalent to death by asphyxia.

Annual Dinner of the Governor of the Apothecaries' Hall of Ireland.—On Thursday, the 25th ult., Dr. P. Wyse, Governor of the Apothecaries' Hall, Dublin, entertained at a sumptuous banquet, at the Gresham Hotel, the Court of Examiners of the Hall, the Examiners in Arts, several of the leading members of the Medical and Surgical Professions, and a number of his private friends. Among those present were Dr. Stokes, President of the College of Physicians; Dr. Adams, President of the College of Surgeons; Sir Dominic Corrigan, Bart.; Sir William Wilde, Dr. Beatty, Dr. Churchill, Dr. Hans Irvine, Dr. Fleming, Mr. Hamilton, the Rev. J. W. Stubbs, D.D., F.T.C.D., Alderman Gregg, Dr. Bolland, Mr. Vance, etc., etc. Several excellent speeches were elicited by the toasts of the "University," the "King and Queen's College of Physicians in Ireland," the "Royal College of Surgeons," the "General Medical Council," etc. After an agreeable evening, diversified with much excellent music, the company separated at a late hour.

We notice in the *Bulletin de l'Académie Royale de Médecine de Belgique* that certain important experiments on the subject of the cattle plague have been made at Utrecht. M. Paarlberg maintained that he had discovered certain signs indicative of a constitution in oxen capable of resisting the poison when introduced in the ordinary ways. Six oxen selected by him were subjected to trial, and the experiment was so far successful. Not so when the animals were inoculated with the poison. Certain others, again, selected by M. Paarlberg as incapable of resisting the contagion, were partially affected. The signs, although not accurately known, are generally supposed to be a brown tinge of the conjunctiva and other portions of the eye. M. Vleminckx held that, as the disease was propagated by contagion, not by inoculation, the experiments had been favourable, and desired them to be continued. Can our Veterinarians tell us anything that will tend to settle this question?

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Constant Reader.—1. There are none such. 2. Probably the best substance for your purpose would be the plasma of glycerine with starch.

The *Guardian*, referring to the use of Tarragona wine in Hospitals and Dispensaries, says that it clearly is "a great favourite amongst first-class paupers."

Arch. Chirg.—The "scouring brush for the stomach" is described in the second volume of Heister's "Surgery" (ed. Lond, 1743). It is, or was, a big bottle brush, with a flexible wire handle: it was passed down into the stomach, and then twisted about and drawn up and down to extract foulness and mucosities. This practice was said to "prolong life to a great age," and was the subject of a "controversy between Wedelius and Teichmerus." What fools mankind must have been to allow such tricks to be played on them by our departed brethren of the 18th century!

P. E. R.—We should think you would have an undoubted claim to be repaid your expenses; but whether it is worth while to apply for them is a matter for your own consideration.

Dr. Davey, Northwood, has circulated a letter expressing his dissatisfaction with certain members of the Medico Psychological Association for an alleged irregularity in the election of president, and with the editors of the journal of that Society for not inserting a protest. Without knowing what is to be said on the other side, it would be plainly unfair in us to give an opinion on a matter in which, after all, the members of the Association alone are interested.

H. J., Plymouth.—Although you failed to reach the standard required for the *Fellowship* of the College at the recent examination, you have obtained more than sufficient marks for the Membership, and will not be required to undergo any other preliminary examination for the latter qualification, but can at once enter on your Professional examination.

An Indian Surgeon.—The name has been removed from the list of the College and from the *Register*. Until the receipt of your letter and the newspaper, we thought the fellow was practising at Genoa from a letter sent to us by a Government official. It is to be hoped that the strictures in the local paper will drive him elsewhere.

A Member of the Association.—It is understood that one of the excursions will be to the Boyne Water, under the superintendence of Sir W. R. Wilde, who has written so well on the subject. A tourist's ticket will allow you to break the journey in North Wales, where you can spend a week or two.

Treatment of Diarrhœa.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Diarrhœa is more or less prevalent in many districts, and the cholera may speedily become so. Such being the case, the following remedy will be found well worthy of a trial. In my practice it has been

very successful, and other Practitioners speak very highly of it. R Creosoti 3iij., opii Turc. 3ij., capsici pulv 3ij., kramerieæ pulv. q.s. ut fiant pil. cxx. *Preparation.*—Put the opium (which should be moderately soft and cut into small pieces) and the creosote into a vessel of convenient size. Put on a good-fitting cover, and place the vessel in a water bath for about twenty minutes. Then take it out, mix the contents well together, and afterwards add the other ingredients. Adult dose, two pills every two hours until the violent symptoms are relieved.

Oldham, July 30. I am, &c. J. Johnson, Surgeon.

What Constitutes Partnership?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you be good enough to give a subscriber of many years' standing some information on the following point?—In 1854 a Surgeon, S., becomes Medical officer to a dispensary established in 1761. The institution is partly supported by subscription, partly by the sale of 2s. 6d. tickets entitling a patient to receive advice and medicine for one month. The dispensary is held three times a week on the premises of a chemist, C1. He finds medicines and accommodation, whilst printing expenses are paid out of the general fund of receipts, and at the end of each quarter profits are equally divided between S. and C1. At Michaelmas, 1866, C1. leaves the town, and the care of the business and dispensary is entrusted to C2., another chemist who acts as salaried servant to C1. but whose remuneration bears no proportion to the receipts. At this period a different arrangement is made as to the time of the division of profits. This is now done at the end of each attendance, as a check upon C2., all other conditions remaining substantially the same. Now, C1. is found to be lying under heavy trade liabilities. The question arises, is S. liable in any way for the business debts of C1.? The name of S. has never appeared in public print, private document, nor, indeed, in any manner of connexion with that of C1. The matter turns on this: Does division of profits constitute partnership? On the other hand, could the liability be evaded by putting the division in the way of S.'s paying the chemist half the profits for medicines, or by S. receiving half the profits as a salary? Would it be necessary to advertise that partnership (?) was dissolved? With apologies for inflicting this long communication on you,

I am, &c. A. Y. Z.

*** S. is not a partner in the business of C1. or C2., so far as the general business of chemist is concerned; he might be liable for debts incurred on behalf of the *Charity*.

Serjeant-Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I see that one of your correspondents wishes for some information about Serjeant-Surgeons. Perhaps the following list may be useful to him:—

William Hobbys, the first Serjeant-Surgeon, 1461; Richard Wiseman, Serjeant-Surgeon to Chas. II.; Richard Ferris, Serjeant-Surgeon to Queen Elizabeth; William Clowes, Serjeant-Surgeon to Chas I.; Charles Bernard, Serjeant-Surgeon to Queen Anne; Sir Cæsar Hawkins, Bart., Serjeant-Surgeon to Geo. III.; Ambrose Dickens, Serjeant-Surgeon to Queen Anne; Sir Everard Home, Bart., Serjeant-Surgeon to Geo. III. and Geo. IV.; Sir David Dundas, Bart., Serjeant-Surgeon to Geo. III. and Geo. IV.; Sir A. Cooper, Bart., Serjeant-Surgeon to Geo. IV., William IV., and Queen Victoria; Sir B. C. Brodie, Bart., Serjeant-Surgeon to Geo IV., William IV., and Queen Victoria; Robert Keate, Serjeant-Surgeon to Queen Victoria; Thomas Wormald, Serjeant-Surgeon to Henry VIII., Edward VI., Queen Mary, and Queen Elizabeth; William Godorus, Serjeant-Surgeon to Queen Elizabeth; Robert Balthorp, Serjeant-Surgeon to Queen Elizabeth; Gilbert Primrose, Serjeant-Surgeon to James I.; John Freke, Serjeant-Surgeon to Queen Anne; St. André, Serjeant-Surgeon to Geo. I.; John Ranby, principal Serjeant-Surgeon to Geo. II.; William Cheselden, Serjeant-Surgeon to Queen Caroline (Queen of Geo. II.); George Edward Hawkins, Serjeant-Surgeon to Geo. III.; Sir Patrick Macgregor, Serjeant-Surgeon to Geo. III. and Geo. IV.; Robert Adair, Serjeant-Surgeon to Geo. III. and Geo. IV.; Thomas Gataker, Serjeant-Surgeon extraordinary to Geo. III.; Pennell Hawkins, Serjeant-Surgeon to Geo. III.; Charles Hawkins, Serjeant-Surgeon to Geo. III.; —— Middleton, Serjeant-Surgeon to Geo. III.; Claudius Amyand, Serjeant-Surgeon to Geo. III.; Benjamin Travers, Serjeant-Surgeon to Queen Victoria; Cæsar Henry Hawkins, Serjeant-Surgeon to Queen Victoria; Sir William Lawrence, Bart., Serjeant-Surgeon to Queen Victoria.

London, July 27. I am, &c. H. L. Maysmor, M.D.

COMMUNICATIONS have been received from—

Dr. Gervis; M. A. B.; Mr. Gant; Dr. Day; Dr. Macpherson; A Constant Reader; Mr. Ussher; Dr. Maysmor; Mr. Steinmetz; Dr. Davy; Mr. Johnson; Mr. Tait; A. Y. Z.; P. E. R.; Civis; Dr. Suckling; Dr. Hughlings Jackson; Mr. Spencer Wells; Mr. Stone; Mr. G. Gaskoin; Mr. E. Bellamy; Mr. Middleton; Dr. Robert Barnes; Dr. B. W. Richardson; Mr. J. Chatto; Mr. William Holme; Dr. H. Tuckwell.

BOOKS RECEIVED—

Report of Belfast District Hospital for the Insane—Hayden and Cruise's Cholera Report—Tyrrell on Strychnine—Kidd on Chloroform—Horton on Climate and Meteorology of Western Africa—Squire's Unhealthy Skin—Pharmaceutical Journal, No. 98.

NEWSPAPERS RECEIVED—

Gazette Hebdomadaire—Laboratory—The County Union—The Eastern Morning News—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 27, 1867.

BIRTHS.

Births of Boys, 1107; Girls, 1056; Total, 2163.
Average of 10 corresponding weeks, 1857-66, 1825·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	687	660	1347
Average of the ten years 1857-66	735·7	685·3	1421·0
Average corrected to increased population..	..	..	1453
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	3	2	2	..	4	3	39	4
North ..	618,210	5	3	6	3	6	14	50	6
Central	378,058	..	5	2	..	7	3	22	3
East ..	571,158	3	4	3	..	5	5	52	1
South ..	773,175	8	3	17	5	5	8	33	1
Total ..	2,803,989	19	17	30	8	27	33	196	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·592 in.
Mean temperature	59·2
Highest point of thermometer	74·1
Lowest point of thermometer	45·8
Mean dew-point temperature	51·7
General direction of wind	S.W.
Whole amount of rain in the week	3·73

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 27, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending July 27.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending July 27.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tens per Acre.
London (Metropolis)	3082377	39·5	2163	1421	1347	74·1	45·8	59·2	3·73	377
Bristol (City) .	165572	35·3	104	74	169	71·9	45·5	57·7	0·44	44
Birmingham (Boro')	343048	43·9	282	167	140	72·3	44·0	59·1	0·26	26
Liverpool (Borough)	492439	96·4	449	285	253	70·3	47·7	58·1	0·49	49
Manchester (City) .	362823	80·9	283	205	†237	74·0	45·0	57·2	0·45	45
Salford (Borough) .	115013	22·2	81	58	59	71·5	44·5	56·9	0·33	33
Sheffield (Borough) .	225199	9·9	190	119	92	70·0	44·9	56·2	0·25	25
Leeds (Borough) .	232428	10·8	208	118	107	72·5	42·5	57·3	0·17	17
Hull (Borough) .	106740	30·0	73	49	41	73·0	45·0	55·1	0·32	32
Newcstl-on-Tyne, &c.	124960	23·4	97	66	63	64·0	48·0	55·7	1·08	109
Edinburgh (City) .	176081	39·8	95	85	79	61·7	47·0	51·3	3·79	379
Glasgow (City) .	440979	87·1	318	257	191	63·0	41·1	51·3	2·09	211
Dublin (City and some suburbs)	319210	32·8	120	1157	138	70·9	41·2	57·8	0·19	19
Total of 13 large Towns. . .	6187764	34·8	4451	3061	2816	74·1	41·1	56·6	1·04	105
	(1863)				Week ending July 20.	Week ending July 20.				
Vienna (City). .	560000	..	..	..	249	..	..	67·6§	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·592 in. The barometrical reading increased from 29·42 in. on Friday, July 26, to 29·93 in. by the end of the week.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 59·0°.

APPOINTMENTS FOR THE WEEK.

August 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

5. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

6. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

7. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

9. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

CHOCOLAT-MENIER.

(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

The healthiest, best, and most delicious Aliment for Breakfast known since 1825; defies all honest competition, unadulterated, highly nutritious, and pure.

Sold in Half-pound Packets.

Wholesale, MENIER, 23, Henrietta-street, Strand, London.

Retail by all respectable Houses.

BURGUNDY WINES. *What more valuable therapeutic agent than a pure Wine rich in Aromatic properties, but free from an excess of Alcohol and Sugar?* Such is PIOT FRERE'S BEAUNE, 44s. per doz.

The judicious exhibition of easily assimilated Tonics and non-intoxicating Stimulants in the form of Wine pure and generous, yet very moderately alcoholic, is often more efficacious than all the fortifiants in the Materia Medica, is a truth that has become generally recognised with the advanced minds of the Profession; and which of the various juices of the Grape is calculated to be of the most active benefit—*instead of the least harm*—is a question that demands the serious consideration of every Practitioner.

The qualities that render Burgundy emphatically the Wine for Invalids in this climate, are its richness in aromatic properties, its freedom from acidity, and its comparatively great powers as an exhilarating and sustaining stimulant in proportion to the small quantity of alcohol it contains.

MM. PIOT FRERES have the pleasure to submit upwards of thirty varieties of Burgundy Wines, and offer every facility and assistance to members of the Medical Profession in selecting the Wines best adapted for various diseases, constitutions, and temperaments.

PIOT FRERES, Growers and Factors of Burgundy Wines. London Depot, 282, Regent-street, W.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, PULLNA, FRIEDRICHSHALL, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

The Mineral Water of Geilnau (Nassau), an Acidulous and slightly Alkaline and Chalybeate Water, of very agreeable and refreshing taste, owing to its large proportion of carbonic acid; a valuable Dietetic Beverage in many morbid tendencies through its antacid, diuretic, and tonic qualities.

Specimen and analysis of the Water may be obtained from Messrs. BECKER and JUNG (Ems), the appointed Agents, 9, Rood-lane, Fenchurch-street, E.C., London, who supply also the other German Mineral Waters.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.

VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.

VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

INVALID TURTLE.

As the best restorative for strength, used and recommended by all Physicians in cases of WEAKNESS and PROSTRATION. Kept ready for use in Half-pints, Pints, and Quarts, by Mr. DONALD, St. James's Hall, Regent-street, W.

LIQUOR BISMUTHI (SCHACHT).

Carefully purified from Copper, Arsenic, and other contaminations. (Dose, 3j. diluted, equivalent to a full dose of the trisnitrate.)

The compilers of the British Pharmacopœia have paid the above preparation the high compliment of introducing in their new edition a formula for a compound professing to resemble it. Important differences, however, exist in the two results, which render it most unfortunate that a name so nearly resembling the original should have been selected.

In the Pharmacopœia process, the nitric acid to the extent of about 2 oz. in each pint is left in the preparation, and all the soluble impurities notoriously prevalent in metallic Bismuth (such as arsenic, copper, antimony, &c.) are retained.

In the original preparation (Schacht's) these are all carefully removed. In addition, therefore, to the constituents of

LIQUOR BISMUTHI (SCHACHT) which are { Bismuth Oxide. Citric Acid. Ammonia.

The Pharmacopœia preparation will contain { Nitric Acid—certainly. Arsenic } almost invariably. Copper } Antimony, &c.—frequently.

The Inventor, therefore, hopes, both for the security of the patient and the satisfaction of the dispenser, his Professional friends will be careful to write—LIQUOR BISMUTHI (SCHACHT).

Prepared by the Inventor, G. F. SCHACHT, Pharmaceutical Chemist, Clifton; and procurable through all the Wholesale Druggists in London and the Provinces.

NEPENTHE.

PREPARED EXCLUSIVELY FROM OPIUM. (Dose the same as Tinctura Opii.)

Nepenthe does not produce headache, stupor, giddiness, depression of spirits, diminution of nervous energy, prostration of strength, nor constipation, but induces natural and refreshing sleep. It may be used with perfect safety in every case where an Opiate is indicated, and from the peculiar process by which it is prepared it is deprived of all constituents which render the Tinctura Opii, and most other forms of Opium, in very numerous instances wholly inadmissible. It is always of UNIFORM STRENGTH, and in this respect possesses high advantages. **Price 8s. per lb.**

May be procured direct from the Sole Manufacturers,

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And through all leading Wholesale and Retail Chemists in Great Britain and the Colonies.

Messrs. FERRIS and COMPY.'s New Copyright Price List of Drugs and Chemicals, with complete Table of Doses, will be forwarded to Medical Gentlemen upon application.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture II.—Part II.

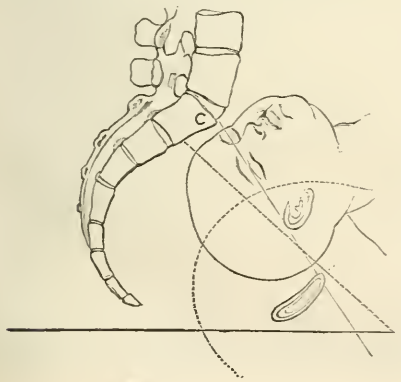
THE FORCEPS—THE LEVER—DEMONSTRATION THAT THE LEVER IS A LEVER, NOT A TRACTOR; ALSO THAT THE FORCEPS IS A LEVER.

Knowing what the forceps can do, and having an approximate idea of the extent of compressibility of the child's head compatible with the preservation of life, we may now study the various cases in which the instrument may be used, and the modes of applying it.

It is well to begin with the simplest case. This occurs when the head, presenting in the first position, has descended into the cavity of a well-formed pelvis, and is arrested on the perinæum from want of expelling power. In such a case very moderate leverage and tractile power—a force of a few pounds, perhaps—is all that is required. Often the lever or tractor, like that of Symonds, of Oxford, will be quite sufficient. The moulding or diminution of the equatorial diameters will be effected by the sole compression of the mother's structures. The occiput lying behind the left foramen ovale, the tractor may be slipped over it, and the head drawn down towards the pubic arch, using your fingers as a fulcrum. This may be enough, for often, when the head is once started, expulsive action returns. If not, then the tractor may be shifted to the opposite side, so as to lie over the child's face and chin, in the hollow of the sacrum. Then drawing down, you give the extension-movement to the head, and the cranium soon emerges through the outlet. Several skilful practitioners who frequently resort to this instrument contend that it is a true tractor, and point, in confirmation of this view, to the great curve of the blade. But I think reflection will show that it is essentially a lever. It does not directly draw down the head, but by pressing upon one side or point of the head-globe, it causes the globe to revolve upon its centre, its axis representing another lever. If the point opposite to that seized by the lever be movable, of course, when leverage is applied, the head will roll up on one side as it comes down on the other; but if the opposite point be more or less fixed, as the occiput generally is, against the foramen ovale or left ramus of the pubes, then leverage on the face and chin will effect rotation on that fixed point as a centre, and the bulk of the head will have descended.

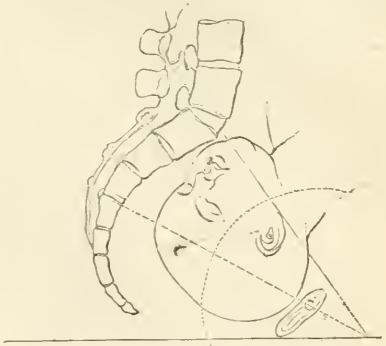
The following series of diagrams will illustrate the action of the lever bringing the head down by alternate flexion and extension. The lever is supposed to be applied alternately over the occiput and the face. In Fig. 3, c represents the centre of rotation. The lever applied to the occiput will bring down the pubic hemisphere of the head-globe, the forehead remaining nearly fixed against the sacrum at c. Flexion is preserved.

Fig. 3.



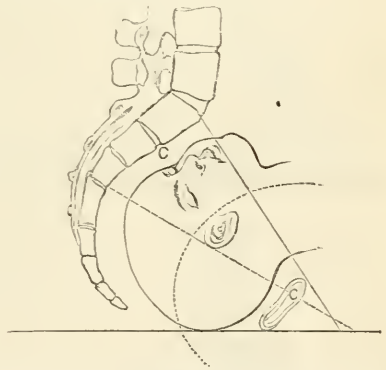
In Fig. 4 the lever is reversed. The centre, c, is at the pubes; the facial or sacral hemisphere descends with extension.

Fig. 4.



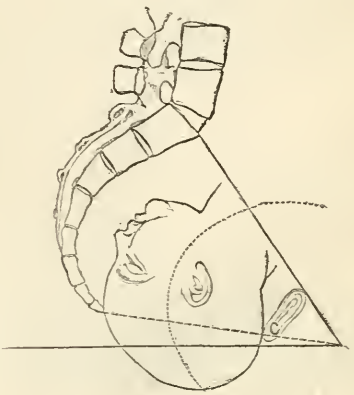
In Fig. 5 the lever is shifted back to the occiput, which is made to descend by flexion, the face resting in the sacrum, but at a lower point than in Fig. 3.

Fig. 5.



In Fig. 6 the lever shifts to the face. The centre, c, is at the pubic arch. The facial hemisphere is now made to sweep

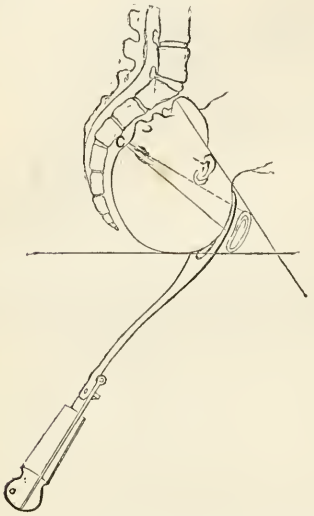
Fig. 6.



down over the perinæum, performing the extension-movement of delivery.

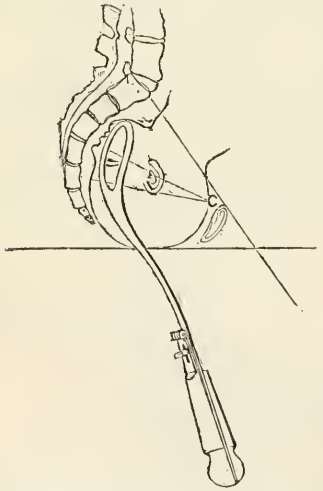
Figs. 7 and 8 further illustrate the same points. In Fig. 7 the lever is seen applied to the occiput, bringing down the pubic hemisphere, whilst the opposite point is fixed in flexion at c in the sacrum.

Fig. 7.



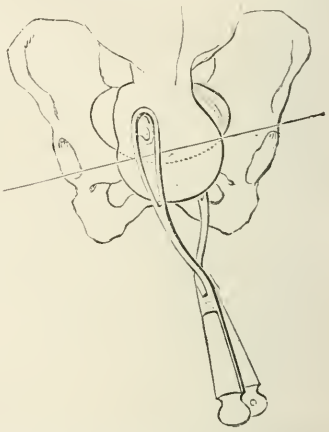
In Fig. 8 the lever is applied over the face, which is brought down in extension, the occiput resting against the pubes.

Fig. 8.



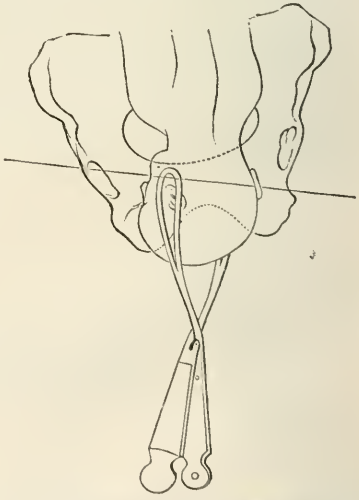
A similar principle of leverage may be applied by the two blades of the short forceps. But in this case the leverage is applied to the transverse diameter of the head. (The lever can in like manner be applied to the side of the head, and occasionally this is more convenient than to the occiput and face.) When the blades are crossed and locked, the common fulcrum is at the lock. Then, by gently bearing upon either handle alternately, swaying the instrument backwards and forwards, avoiding all pressure against the pelvic walls, you cause the head-globe to rotate to a small extent alternately in opposite directions upon its own centre. At each partial rotation a little descent is gained, owing to the point opposite to the lever in action being partially fixed by the other blade, and by gentle traction upon the handles. In very many cases this gentle double leverage is enough to effect delivery. Traction is hardly called for at all. The alternate action of the forceps is illustrated in Figs. 9 and 10. In Fig. 9, the head grasped transversely, the handles are first carried to the left. The right or pubic hemisphere descends. The forceps is at right angles with the transverse line which cuts the pelvis obliquely.

Fig. 9.



In Fig. 10 the handles are carried across to the right. The left or sacral hemisphere descends.

Fig. 10.



It is easy to demonstrate this simple leverage action on the phantom. Thus, if I take each blade of the forceps alternately, unlocked, and use it as a lever, the head advances by a series of alternate side-movements, until it is actually

extracted by this power alone. Is it reasonable to throw away a power by means of which we can safely economise the more hazardous traction-force? It is, however, disapproved of by some authorities, who enjoin traction alone. But I believe that pure traction is almost impossible, and I am equally certain that a gentle and careful leverage will enable you to deliver with a great economy of force and time, which means, of course, greater safety—to the mother.

Errata.—Page 30, lines 50, 51, for "pin," read "pen."

ORIGINAL COMMUNICATIONS.

AN OUTLINE OF THE PRESENT METHODS OF DIAGNOSIS IN AURAL SURGERY.(a)

By JAMES HINTON.

Before proceeding to the proper subject of this paper—the general methods of examination applicable to all affections of the ear—I would premise a word upon a subject of much interest, but on which I am at present rather in search than in possession of information: the relation of diseases of the ear to diseases of other organs, or to general morbid conditions. On this point I have to confess that my inquiries have yielded as yet, with a few important exceptions, a somewhat negative result. I think, indeed, if I expressed my own feeling on the matter, I should say a strikingly negative result. Scrofula, as is well known, in children predisposes to inflammatory affections of the meatus and tympanum, and renders a fatal extension to the bones more prone to ensue. Gout has occasionally one of its seats in the external meatus, and apparently another in the articulations of the ossicula, which small joints appear sometimes to suffer from a true arthritic anchylosis. The connexion of this condition with a rheumatic diathesis may be more frequent, but appears to me to be less clearly marked. Acquired syphilis is a direct cause of deafness in a certain, not very large, number of cases; and hereditary syphilis, as pointed out by Mr. Hutchinson, sets its stamp unmistakably on a number much more considerable. Persons prone to eczema and psoriasis are especially liable to certain chronic inflammations of the meatus, and those in whom there is a tendency to engorgement of the mucous membrane of the throat, of course suffer most from obstruction of the Eustachian tube.

But besides these groups of cases, I have been able to trace scarcely any instances of a clear connexion of disease of the ear with other general or local diseases. Deafness often runs in families; and a general exhaustion and irritability of the nervous system is sometimes seen to accompany a special inability to hear without discoverable lesion of the conducting apparatus. But this is by no means always the case. I should say that the rule is the contrary, and that what we must still be content to call "nervous deafness" does not generally coincide with other symptoms of nervous derangement. At the same time, there appears to be a certain constitution of body with which a nerve-deafness is often associated; so much so, that on the first aspect of the person his or her symptoms may be pretty accurately predicted. These patients may be of either sex, but are most frequently females; they are characterised chiefly by a peculiar smoothness of the skin, giving to the features, when it is extreme, somewhat of a drawn aspect. There is, however, no emaciation; they appear to be in perfect health, often robust, and by no means complain of weakness. They seem mostly of the sanguine or nervo-sanguine temperament, and the countenance is more or less florid. They give no history of mental shock or physical exhaustion, and the other senses, as a rule, are not impaired. In one such patient, however, now under my care, a girl of 16, the sight is weak, and ophthalmoscopic examination (for which I have to thank my friend Mr. Bader) reveals an extreme hyperæmia of the optic nerve and retina. In this case the symptoms (as nearly as I can interpret them, by means of which I shall speak hereafter) are those of increased pressure within the labyrinth—a glaucoma of the ear. The coexistence of aural and ocular disease in this case is interesting, but I have met hitherto with few parallel instances. One case of confirmed glaucoma, accompanied by total deafness, I had the opportunity of examining after death, and found softened patches in the brain and degeneration of the membranous labyrinth, together with extensive disease of each meatus, the bone being largely absorbed by the pressure of accumulated masses of epidermis. Unfortunately, as yet, our means for measuring excess or deficiency of the labyrinthine fluids after death are scarcely reliable, though I think I have met with both.

Apart from syphilis I have not found ocular and aural disease to be general concomitants, though the frequent existence of myopia in patients suffering from deafness not referable to derangements of the conducting media of the ear—a fact for which I am also indebted to the kind offices of Mr. Bader—suggests perhaps a glimmering of light, and affords a clue for future research. I have never been able to connect loss of hearing with albuminuria. But I have seen cases which support the idea of an injurious influence of tobacco—I mean on the function of the nerve, apart from its debilitating influence on the throat.

Passing now to the more immediate object of the present paper, I have to speak of our means of diagnosis in affections of the ear. These are not numerous or complicated, but I trust it will be seen that they can be so employed as to give a not inconsiderable amount of definite knowledge. They come under three heads:—

I. Ocular inspection.
II. Tests applied to the hearing.
III. The effects of certain procedures.

I. At the basis of all knowledge of the affections of the ear lies—looking into it. I ought to apologise to a society so learned for a remark so trivial, but I am bound to make it. How often I have known it happen that the meatus is syringed out when it is empty, and left uncleared when a perseverance in that operation was the one thing demanded, I should be sorry, for the credit of our art, whose dignity demands that no least corner of her domain should be abandoned to a slovenly empiricism, to say. But, not to insist upon the respect due to ourselves, it must be said also that syringing ears that do not need it may be highly mischievous; nearly the worst case of tinnitus I have witnessed was due to that cause. Happily the means of examining the meatus and membrane are very simple, and I find that the most effective is the simplest; one or two oval specula and a slightly concave reflector, with ordinary daylight, amply suffice. The reflector used for the ophthalmoscope, and that for the laryngoscope, both answer perfectly, but the latter has the advantage, when worn upon the forehead, of leaving the hands free. A small form of speculum opening by a screw, introduced by Bonnafont, of Paris, also sets the hands more at liberty by retaining its position in the meatus more exactly. When the passage is at all narrow, allowance should be made in introducing the speculum for its backward curve, and the line of sight should be directed well forward, beyond, and not against, the projection of its anterior wall. Here, however, it should be said that though, generally, the appearance of the membrane, even in its morbid states, may be clearly made out by the eye, the alterations which it sometimes undergoes are such as to demand repeated examinations to determine their character. Flakes of white epidermis, or masses of secretion also, may sometimes closely simulate the appearance of a thickened or softened membrane.

An ocular inspection of the Eustachian tube by means of the rhinoscope can be accomplished in some cases, but on this point my own experience is hitherto barren of results. By other Surgeons, tumours, ulcers, and masses of thickened mucus have been discovered, more or less occluding the orifice of the tube.

II. *Tests for the Hearing.*—Those which I employ are:—(1.) Two watches, one low and one loud. (2.) A crack of the nail, which, though somewhat coarse, is often very convenient and moderately accurate. (3.) Tuning-forks of different pitches; and, (4.) The voice. In respect to watches and kindred sounds, I need only remark:—1st. That different patients hear them best when held in different positions—some more in front, others more behind the line of the meatus. 2nd. A prolonged effort of listening often confuses. 3rd. Young patients are very apt to say they hear when they do not, and more care in this respect is required than might have been supposed. 4th. The comparative hearing for the watch and the voice differs very greatly in different persons, and there may be improvement or deterioration in respect to one kind of sound without a corresponding change in respect to the other. A short time ago I examined together two brothers, one of whom suffered under a very considerable degree of

(a) The substance of a paper read before the Hunterian Society.

deafness, the other heard fairly well. The deaf brother heard my watch at a distance of full twenty inches by each ear, the other at two inches only.(b)

(2.) Tuning-forks may be used both at a distance from the ear and placed upon the head. A standard is needed, of course, and it has been suggested to use a certain force to put them in vibration, and to note the period for which they are heard in any given position. I confess, however, I take myself as the standard, and content myself by ascertaining how far my patient's hearing falls short of or surpasses my own. Made to vibrate on any kind of sounding-board at a distance from the ear, a tuning-fork adds much to the information given by the watch, but its chief use is when placed upon the head.

It has been insisted—and especially of late by Erhard—that inasmuch as the vibrations of a tuning-fork placed upon the head are conducted directly to the labyrinth through the bones of the skull, they may be used to determine the sensibility of the auditory nerve. It is enough to say of this theory that it is disproved by facts of various kinds. Changes in the condition of the tympanum cause variations in the perception of the sound; and cases are met with in which the natural hearing is good and even acute, while the tuning-fork placed on the head is heard very imperfectly. The value of this instrument, therefore, is not that of a direct test for the nerve, although it gives important evidence in this respect, in so far that when it is well heard through the skull we may reasonably infer that the function of the auditory nerve is not much impaired. By transferring it rapidly from the neighbourhood of one tympanum to that of the other, also, we may gain a comparison between the power of the auditory apparatus on the two sides, while the relative conducting power of the bone and of the meatus will help us to decide whether the impairment of hearing depends upon hindrance to conduction or inability to respond.

But the chief use of the tuning-fork lies in another direction. It is well known that if, while we are speaking, one ear be closed, the voice immediately sounds much louder in the closed ear. The same is the case with the sound of a tuning-fork placed on the head, or any other sound conveyed through the cranial bones. The reason of this increase of the sound is simple. The auditory meatus, as it admits sonorous vibrations from without more readily than other parts of the head, so also it transmits them more readily from within. If a conducting tube be applied to any part of the head of a person who is speaking, or on whose head a tuning-fork is vibrating, the sound is conveyed through it much more powerfully from the meatus than from any other region. When the ear is closed, therefore, the vibrations that would have been thrown off externally are reflected, and reinforce the sound. Other explanations of the fact have been given (especially by Lucae, who referred it to pressure on the labyrinth); but that this, the most simple account of the matter, is the true one, seems to be proved by this—that if an elastic tube be placed in the meatus, the same reinforcement of the sound is produced by closing it at the distance of an inch or so from the ear, whereby no pressure is exerted.

The meatus and tympanum, then, naturally transmit sound easily in each direction; but if they cease thus easily to transmit sound, it is evident that closure of the meatus will no longer have a tendency to intensify vibrations conveyed through the cranial bones, since the meatus will no longer be a channel for their free escape. Accordingly, if, while the tuning-fork is vibrating on the head, the tragus is firmly closed over the meatus, and there be perceived no increase, or but a slight increase of the sound, the inference seems legitimate that there is an obstruction somewhere in the conducting media of the ear. Thus there is in our possession a simple and yet reliable aid in determining that often so doubtful question whether the cause of deafness lies in or beyond the tympanum.

The patient's own voice—a uniform hum being kept up with the mouth closed—may be used instead of the tuning-fork.

Resting on the same basis as the preceding are two other methods of applying the tuning-fork in cases in which the condition of the two ears differs. One consists in ascertaining in which ear the patient hears most loudly the sound of a tuning-fork placed on the centre of the head. Very frequently indeed, this is the deaf ear or the one most deaf. Naturally it should be so if the deafness depend upon impeded transmission of vibrations, for then the ear is, as it were, already closed, and the sound accordingly reinforced. We may also reasonably infer from such better hearing that the nerve is not materially involved. On the other hand, if the tuning-fork be heard worse in the deafer ear, the evidence in favour of a nerve implication is the more considerable.

Again, we can ourselves listen and ascertain through which ear the transmission of sonorous vibrations is most free, by the use of an otoscope consisting of three tubes united in one centre. If one tube be placed in each of the patient's ears, and the third in that of the Surgeon, the latter may compare the diminution of sound produced by cutting off alternately the vibrations transmitted through each ear.

By these means it appears to me a certain approach can be made to a determination of that difficult problem, the diagnosis of "nervous" from tympanic deafness. But we can also go a short distance further. Besides those who do and those who do not better hear sounds conveyed through the skull when the meatus is closed, there are some who hear them worse—that is, in a certain number of cases closure of the meatus diminishes the sound. I think it will be obvious from what has preceded that this result is one which cannot be ascribed to any condition of the conducting apparatus merely; and thus we seem to arrive at a certain amount of direct evidence of affection of the nervous system. We come, however, at the same moment, it must be confessed, into a region of theory. I shall content myself with saying that my own mind inclines strongly to the opinion that such diminished hearing on closing the meatus is due to pressure thereby exerted on the labyrinth, and that it denotes an increase of intra-labyrinthine tension—in fact, that it indicates a condition akin to glaucoma.

It is, however, evident that the fact of a diminution of the sound resulting in some cases from closure of the meatus, tends to modify the inferences that can be drawn in any given case from the mere absence of an increase. It is evident that the conditions which determine an increase (the free transmission of vibrations) and the conditions which determine the decrease (suppose tension of the labyrinth) might so coexist as exactly to neutralise each other, and thus no certain conclusion could be drawn from the mere absence of effect. In all such cases, therefore, other evidence also must be sought to determine our judgment. Most frequently it is present in visible lesions or clear history; if it be not, the tube before mentioned, by which the transmission of sound through the tympanum can be positively tested, affords us appropriate aid.

(3.) In using the voice as a test of hearing, it is scarcely necessary to remark that sentences or words that are likely to be expected are less suitable than words that have no appropriateness to the circumstances; perhaps numbers and names of places irregularly alternated are as good as any. Something also may be learned by testing whether the ear demands an especial slowness of articulation, which would indicate a defect in muscular adjustment. In some cases, hearing which is tolerably good when the attention is alert, is bad for unexpected sounds—a condition which is present in some cases of great relaxation of the membrana tympani, and has been relieved by the artificial membrane. It appears to indicate an absence of due tension, requiring a special muscular exertion to bring the ear into its normal state.

III. In speaking of the effects of certain procedures, I pass to another means of diagnosis of recent introduction. A little instrument has been designed by Siegler to exhaust the meatus of air while the Surgeon keeps his eye upon the membrana tympani and observes the effect produced. It is called accordingly the pneumatic speculum. Its design was to aid in determining the presence of bands of adhesion in the tympanic cavity, by indicating any spots at which the outward movement of the membrane might be impeded. In this respect it has great value. The membrane may be distinctly seen through it to move, sometimes as a whole, at others unevenly and in parts.

But the little instrument has seemed more useful to me, even in diagnosis, by virtue of its power over some forms of tinnitus. That this affection very often has its source in an excess of muscular irritability and other causes leading to an increase of pressure on the labyrinth, I cannot doubt, and the more because in a large number of cases slight traction on the

(b) The physiological explanation of this and similar facts, suggested chiefly by the anatomical structure of the cochlea, is that the latter organ is the recipient of articulate and musical tones, and the vestibule of mere sonorous impulses. In the case referred to, the cause of the deafness was believed to be a commencing anchylosis of the stapes.

membrane by means of this instrument decidedly allays it for the moment.

It remains only to speak of the effect of air passed through the Eustachian tube into the tympanum. The inflation of the tympanum by the patient himself is the only satisfactory proof (if deafness be present) of a due perviousness of the canal. If this cannot be done, two other methods are at our command—Politzer's beautifully simple plan of passing air into the patient's nostril during the act of swallowing, and the Eustachian catheter. In diagnosis these methods have less place than in treatment, and it is perhaps enough here to remark that the various sounds produced by the entrance of air into the tympanum, or its failure to effect an entrance, give most important indications of the condition of the tube and cavity. These sounds are exceedingly diverse, and pass into each other through all grades, from the extreme of dryness and harshness to bubbling and every variety of squeak and creak.

In fine, if air cannot be introduced, elastic bougies will determine the point of obstruction, and laminaria may take, carefully used, its impress.

CASE OF GALLSTONE TREATED WITH CHLOROFORM.

By JAMES FLACK, L.R.C.P., M.R.C.S., and L.M.

March 21.—Mrs. —, a young married lady, five months advanced in pregnancy, generally healthy, though subject to occasional attacks of gastrodynia more or less severe, requested me to see her. She was suffering from pain at the epigastrium, and, believing it to be one of her usual attacks, she was treated with antispasmodics internally, and by laudanum on cloths wrung out of hot water externally applied with benefit. But the spasmodic pain continuing, and spreading to the right hypochondrium, with occasional vomiting, I suspected she was passing a gall-stone. Administered morphia in small and frequent doses, and continued the external application. In four days the symptoms had gradually improved, and she rapidly recovered. No stone was found.

April 14.—At 4 a.m. I was again sent for. She was complaining of most intense pain in the epigastrium and right hypochondriac regions, which commenced the previous day with sickness. The pulse small and frequent, her face pale, with an anxious expression, and vomiting urgent. Hot cloths with laudanum had been applied without relief. No medicine being retained by the stomach, I resolved to administer chloroform by inhalation. After continuing it for thirty minutes, I gave a two grain opium pill, put her to sleep, and left her. But she soon awoke and vomited the pill, and at 7 o'clock, when I returned, she was in agony, rolling about the bed, scarcely retaining her senses, and expressed herself to be dying. The pulse was small, frequent, and remittent, at times scarcely perceptible; the face pale, with blueness round the mouth; the surface of the body cold, especially the extremities, and respiration hurried. I felt that, unless she was speedily relieved from pain, she would sink from exhaustion, so again put her under chloroform, keeping up the effect, more or less, until 10 o'clock, when Dr. Palfrey met me in consultation. He entirely approved of the inhalation, suggesting its continuance till the stone had passed; the patient to be sustained with beef-tea and brandy enemata. When fully under chloroform, it was gratifying to find how quickly the grave, urgent symptoms disappeared: the pulse regaining power, the surface of the body warmer, and respiration easier. After complete anæsthesia for six hours, I allowed her to regain consciousness; the pain was again as bad as before. She took two or three teaspoonfuls of cold water, and passed a small quantity of dark urine, not albuminous. Chloroform was re-administered for four hours longer, and upon her regaining consciousness I was pleased to find the continuous agonising pain had left her, though, of course, she complained of spasmodic pain and a burning sensation at the stomach. I ordered the hot cloths and laudanum to be reapplied, and, fearing to excite vomiting, strictly prohibited anything being given by the mouth except a drachm or two of cold water to moisten the tongue. I administered another enema, put her to sleep with chloroform, and left at 9 p.m.

15th.—9 a.m.: Slept two hours after I left, then dozed occasionally, but the severe spasmodic pain disturbed her very much; had vomited twice, chiefly water and phlegm; urine dark and scanty; no action of bowels since Saturday morning; pulse 110. To go on with cold water or ice, the enemata, and hot cloths. 10 p.m.: Pain still spasmodic, and has been so severe all day as to preclude sleep. She has begged for chloroform, and I put her to sleep three times—viz., at 9 a.m., 2 p.m., and 6 p.m., and each time she slept about thirty minutes; the stomach still irritable; has vomited twice, bile and water; portions of two enemata were returned, but no fæcal matter; pulse 100, but favourable. Again administered chloroform.

16th.—Had four hours' sleep after I left, and on the whole passed a better night; the pain not so severe; urine scanty; vomited once; pulse 100. She is very thirsty, and the tongue dry and brown. 10 p.m.—During the day she wished for lemonade. A small quantity was given, but soon returned; so also was some brandy and soda-water. The pain is gradually lessening; no action of bowels; has slept at intervals; pulse greatly improved, being 80.

17th.—Passed a comfortable night. Pain at chest much better; no sickness; and has retained some brandy-and-water and half a cup of coffee; pulse 86. Unfortunately this improvement was of short duration, for symptoms of premature labour now presented themselves, and at 10.30 a digital examination proved labour to have commenced. This was a serious complication, and soon told upon the nervous system, the pulse going up to 120, without power, as the pains followed up freely. Fortunately beef-tea and brandy could be taken. I hoped the labour would soon be completed with a little help; but the os uteri was very rigid, and after dilating to the size of a florin the membranes ruptured, when, as the liquor amnii escaped, the patient suddenly collapsed into as precarious a condition as on the 14th, in addition to which there was tremor of the limbs, with more or less coma. Being anxious for her delivery, I now requested Dr. Palfrey to see her with me. Champagne was given in small and frequent doses, and when the pulse became a little promising, No. 2 size of Dr. Barnes's dilators was introduced. With this the os dilated rapidly, and with the aid of the small blunt hook labour was soon completed. The placenta followed in a few minutes. There was no hæmorrhage. To have a tablespoonful of champagne and beef-tea alternately every half-hour. She had been but slightly jaundiced the previous days; but it became rapidly worse this afternoon. 11 p.m.: Pulse 116, still remittent; pain at chest only increased by pressure. To apply a mustard poultice, and continue the wine and beef-tea.

18th.—Passed a quiet night, dozing occasionally; pain at chest better; had vomited once, and was perfectly conscious; pulse 98 and regular; jaundice no worse.

19th.—Pulse 90; has had refreshing sleep, expresses herself better, and thinks she shall get over it. To continue wine and beef-tea, but less frequently.

20th.—Pulse very good and down to 80, and all pain nearly gone. The stomach being so irritable, no medicine of any kind was given, and, the bowels not being relieved, a warm water enema was given, which brought away a quantity of fæcal matter, in which the offending gallstone was found. It measured two lines in diameter, and weighed three grains when dry; when broken, the fragments showed crystals of cholesterine, with inspissated bile. Less jaundiced.

24th.—Pulse 76; no action of bowels since 20th. To have another enema, and some light food—beef-tea *ad libitum*, but little wine.

27th.—To have another enema. Enjoys her meals; has permission to sit up for an hour.

29th.—The bowels acted yesterday and to-day naturally; appetite good; declares herself quite well, and wishes to leave her room. To drink Vichy water and avoid malt liquors for the future.

My apology for publishing this *in extenso* is to show the advantage chloroform possesses over drugs, especially when the spasm is so continuous, with inveterate vomiting: and, as Dr. Palfrey remarked, even could the stomach retain opium, a poisonous dose must be given to produce an effect, the consequences of which might be serious, or the patient would die from exhaustion, as she most assuredly would have done in this case but for the freedom from pain given by the chloroform, and consequent rest to the nervous system. In the *Medical Times and Gazette* of March 9, 1867, Mr. Leigh, of Liverpool, records "a case of gallstone causing death in sixteen hours," the writer giving his opinion that the cause of death was "from exhaustion produced by the long continuance of the intense pain and spasm of the diaphragm in impeding respiration and circulation." Whether chloroform would have saved the patient it is impossible to say, but the successful termination of my case would encourage me to employ it again,

and, should other Practitioners be induced to try it, I trust their experience may be published.

56, Shoreditch.

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Medical Times and Gazette.

SATURDAY, AUGUST 10, 1867.

THE NEW LICENCE OF THE ROYAL COLLEGE OF PHYSICIANS.

We may refer to many bygone numbers of the *Medical Times and Gazette* in which we stated the satisfaction felt by large numbers of our Professional brethren at the proposition that General Practitioners might derive their licence from the Royal College of Physicians instead of from the Society of Apothecaries. This satisfaction was felt, not because the latter body had not performed its duty admirably, but because an affiliation to the College of Physicians could not fail to be an upward step. With the dissociation from the trade of apothecaries must come (it was thought) a better education, a prolonged and more efficient curriculum, a stricter examination, and therewith, of course, a higher status in the community.

Hence many gentlemen, already duly licensed to practise in every branch of their Profession, have during the last few years voluntarily come forward, to their great credit, and submitted themselves to examination for the College licence. It would have been, of course, absurd for them to have incurred this expenditure of trouble and money merely to accumulate testimonials of the same order. They desired to get something higher and better than they already possessed, some evidence that their education and acquirements were above the level of the L.A.C.

But these hopes are now at an end. The general Practitioners, who have decorated themselves with the College licence, had better put on a bit of calfskin. They will find themselves swamped in a mass of new Licentiates whose qualifications are those of the Hall, or something less.

The College of Physicians, if it persist in carrying out a plan which is most distasteful to a large number of its Fellows, will subject itself to the imputation of checking the upward movement of Medical education, and of holding out the temptation to students of a cheap, because short and imperfect, education.

The four years' course sanctioned and recommended by the Medical Council, following an examination in arts, and commencing with and carried out throughout by attendance at a Medical school, was beginning to be general. The student well prepared in "arts," began by learning anatomy, physiology, and chemistry, then came fully prepared to receive clinical instruction at the Hospital. Now, the College of Physicians requires candidates for its licence only "to have been engaged in Professional studies during four years, of which at least three winter sessions and two summer sessions shall have been passed at a recognised Medical school or schools, *and of having attended during the whole of that period the Medical and Surgical practice at a recognised Hospital or Hospitals*, and of having been engaged during six months in the clinical study of diseases peculiar to women." With regard to Surgery, the requirements of the College of Physiciana are made identical with those of the College of Surgeons, with the view to a future more intimate alliance between the two bodies.

For the present, let it be understood that the purpose of the College of Physicians, as expressed by its regulations, seems to be not to promote the interests of science, nor to raise the standard of Medical education, nor to enter into wholesome and honourable rivalry with other licensing bodies by sending forth men of a higher stamp, better qualified to serve the public; there can be no pretext henceforward for preferring a L.R.C.P. to L.S.A. for any function whatever. All seems to be merged in the desire to put the Pall-mall stamp on the same metal (and plenty of it) as has hitherto been marked with the Blackfriars licence. Or, as the College frankly puts it—it does not wish to "prejudice" gentlemen who desire its licence by requiring from them a longer period of study than is required by any other corporation. At any rate, this is plain speaking, but it is not quite what should have been said by the College of Physicians; nor is it the voice of a large mass of the Fellows.

CHINCHONA CULTIVATION IN INDIA.

We recently referred to the valuable inquiries instituted by Government as to the relative therapeutic value of the chinchona alkaloids in the treatment of Indian diseases, and we have now to speak of another investigation of, if possible, still greater importance. Since 1860, when, by the exertions of Mr. Clements R. Markham, chinchona plants were introduced into India, their number has been increasing at an enormous rate, so that there are now—speaking roughly—several millions of young plants under cultivation. As might be supposed, there was at first much anxiety as to the success of the experiment—not as regards the plants alone, for all doubt on that subject was soon set aside, but rather as to their yielding the alkaloids which render the barks so precious. It may, however, be at once stated that in this respect also the experiment is a grand success. From time to time favourable reports have been issued by Mr. Howard, but none of these are more striking than that sent in by Mr. Broughton, the recently appointed quinologist at Ootacamund. Some time ago certain experiments were tried with the leaves, and it was then reported that they might be used in the treatment of malarial disorders. This idea has not, however, been confirmed; the leaves are bitter, but they yield little or no quinine, their bitter taste probably depending on a substance termed quinovin, or it may be some of the other alkaloids in their uncrystallisable states. They may be used as tonics, but hardly as anti-periodics. Of the barks now under cultivation the *C. succirubra* appears to thrive best, but all its varieties do not appear to yield the same quantity of alkaloids. It is, however, a matter for sincere congratulation that the poorest specimen examined yielded more than the best Ecuador red bark does. *In some instances the yield of alkaloid has been as high as seven per cent.* Contrast with this the quantity yielded by the best specimen of *yellow* bark examined by Howard—viz., 5·66 per cent. (Pereira)—and it will be seen how much the cultivated red bark surpasses the best uncultivated, to say nothing of its own varieties, the highest yield of which has hitherto been estimated at what was considered the doubtful amount of 4·16 per cent. Nor is it in this respect alone that we may congratulate ourselves on having taken the cultivation of these valuable plants from the hands of savages and placed it in those of scientific men. Every one knows how the Indians destroyed the forests which yielded chinchona barks, and how we were threatened with a

famine of the indispensable quinine. They cut down the trees, stripped them of their bark, but left them on the ground; no new trees were planted, and the plants were becoming scarce. But how does Mr. MacIvor collect his barks? He has found that on removing a strip of bark from the apex to the base of the plant, and immediately covering the wounded surface with moss, the bark is renewed, provided the cambium has not been interfered with. Not only is it renewed, but the new bark is thicker than the old, and yields more alkaloids, in most cases *upwards of 7 per cent.* There appears, however, to be one difficulty in the way. The quinine extracted from red bark is usually mixed with a considerable proportion of an allied product—cbinchonidine—which, along with resin and colouring matter, is not easily separated from it. For this reason, *C. officinalis*, although giving a much smaller yield of quinine, may, to a certain extent, supersede the red bark in its production. Might we not, however, suggest, seeing that the other alkaloids have been proved to have effects similar to those of quinine, that a mixed product be accepted by Medical men? This would have the undeniable advantage of cheapness; the dose might require to be greater than the ordinary dose of quinine, but this disadvantage would be far from counteracting the former. When quinine is so much begrudged as it is—for at certain Dispensaries we have seen mistura quiniæ carefully prepared of concentrated infusion of quassia and calumba, with some aromatic sulphuric acid—it would be far better had the officers auch a compound as that of which we speak than that they should have no chinchona alkaloids at their disposal. The existence of amorphous alkaloidal aubstances should not be forgotten; their use might be attended with great benefit; but we have become so much accustomed to dealing with pure quinine, that we have come to think all others useless as compared with it.

THE WEEK.

TOPICS OF THE DAY.

The effort made by Mr. Vanderbyl to give a *coup de grace* to the Vaccination Bill on its final appearance before the House of Commons met with the defeat which we prophesied last week. The Bill now only awaits the Royal assent to become the law of the land, and a standing illustration of the small amount of influence the Medical Profession are capable of exercising on public questions which closely affect themselves. Mr. Vanderbyl has done his *devoir* as their champion well and manfully, but he has clearly failed from lack of support; and yet we hear occasionally from members of our Profession that "Doctors are not wanted in the House of Commons."

The debate on Greenwich Hospital on Monday night completely supported the opinion we at first advanced, that of the two quarters Queen Mary's, which was offered by the Government to the Seaman's Hospital Society, was the best adapted for the purpose. Lord H. Lennox and Mr. Corry both affirmed that every unbiassed Medical authority consulted by the Government had arrived at this conclusion, and that the only supportera of Queen Anne's Quarter were two of the Surgeons of the *Dreadnought*. A joint conference of Medical men representing both the Government and the *Dreadnought* interests, and including the members for Greenwich, gave it as their opinion that neither of the buildings was suitable for the purpose of a modern Hospital, although of the two Queen Mary's' was the preferable. The suggestion of Mr. Childers that Greenwich Hospital should be converted into a Medical College and Hospital for the supply of candidates for the languishing Medical services of the army and navy implies a most humiliating confession on the part of the late Government. It was during the administration of which Mr. Childers was an active member that the policy which resulted in the utter ruin of the naval Medical service was in the ascendant.

The horrible accounts of the sufferings of the Orissa population which reach us are curious from an ethnological point of view. They prove that amongst the rice-eating Hindoos (by whom, under ordinary circumstances, cannibalism would be regarded with almost as much horror as by ourselves) the sentiment of veneration is yet a stronger force than the natural repugnance to eating human flesh. The Rev. Mr. Miller, of Balasore, states that he has known no instance of a Hindoo eating a cat, a dog, or a *cow*, but that there are instances of their having eaten the dead bodies of their own children. The fact of cannibalism is amply confirmed by other testimony.

The Registrar-General's last quarterly return shows that the realisation of Mr. Mill's prophecy of a time when it will be considered immoral and an offence against society to have a large family, is, at least for England, as far off as ever. During the last quarter we have been increasing at the rate of nearly 1000 (957) a day. The death-rate has been only 21 per 1000. If this state of things continue, midwifery is likely to become—in spite of philosophers—the only lucrative branch of the Profession.

In his judgment delivered in the case of Smith *v.* Tebbitt and others, Sir J. P. Wilde affirmed, we believe for the first time, the principle that monomania is incompatible with testamentary capacity. Whether this doctrine will be accepted as a canon in law remains to be seen. He made some admirable remarks on what constitutes insanity, and on what the special value of Medical evidence in cases of insanity depends. He said:—

"No man knows aught of the condition of another's mind except by comparison with his own. And in instituting this comparison we recognise the general fact that all mankind are with the same senses, moved by the like emotions, governed by the same restraints, and guided by the same faculties. All these vary in their force and action in different individuals, or the same individual at different times. But they vary within certain limits, and certain limits only. It is when the words or deeds of others, referred to our own standard, and that which by experience is found to be the common standard of the human race, appear to transgress those limits that we suspect those common senses, emotions, and faculties which we know to exist to be the subjects of disorder or disease. If the divergence be very marked, and exhibit itself either on many subjects, or with uniform constancy in the behaviour of the individual, we pronounce disease without hesitation. In proportion as the divergence is either casual or trifling, or open to some other probable solution, the inquiry is difficult, and the judgment hesitates. Here, then, I think, is the simple rule by which mankind in general pronounce upon mental disease. But to those who have studied the subject of insanity, another and alternative method is open. There may be, and no doubt are, many whose insanity is suspected, but not proved; but in the large majority of the insane mental disease admits of no doubt whatever. Their ideas, their conduct, and their demeanour contrast at almost every point of comparison with those of their fellow-men. And it is the especial business of those who devote themselves to the mitigation or cure of this fearful malady to study the ways and forms of thought and expression which attend upon it. The sort of things that the insane say and do, their bearing and demeanour, the occasions they choose or decline for the exhibition of their ruling ideas—all these become familiar to the Medical attendant. Hence he is furnished with another road by which to approach the determination of insanity in a doubtful case. He can reason from the certainly to the probably diseased mind, and is enabled to trace in the latter lineaments which are clearly marked in the former. Thus, while the world at large can only contrast the doubtful case with the sane, the Physician has at hand the alternative contrast with the insane. It is a consequence of these alternative methods of judgment that the question of insanity, though it falls to the lot of a legal tribunal, is properly a mixed one—partly within the range of common observation, and in so far fit to be considered by a jury; partly within the range of special experience, and in so far the proper subject of Medical inquiry."

The last newa from Edinburgh is, that, at the recent "capping" of the Edinburgh graduates in Medicine, Professor Syme acted aa Promoter, and, in his address to the young gentlemen on what they should do, and should avoid doing, to insure success in life, especially impressed on them the necessity of not quarrelling with their Professional brethren.

SIR HENRY THOMPSON.

The Queen has conferred the honour of Knighthood upon Mr. Henry Thompson, F.R.C.S.E. This well-deserved distinction ratifies on the part of society at large the estimation in which a singularly meritorious career is held by the Medical Profession. We believe it to be the case that Sir Henry Thompson began his Professional studies many years later in life than most young men do, and that pure love of science induced him to quit, with some difficulty and sacrifice, the more lucrative career to which his friends had destined him. Having gone through his Medical studies with distinction, and taken the M.B. degree of the University of London, he devoted himself to pure Surgery, and was induced by the offer of the Jacksonian Prize to make an especial study of the urinary organs. He was successful in the competition for the Jacksonian Prize in 1852, and published his essay on the Pathology of Stricture, which had been *couronné*, as the French say. He subsequently published essays on the Prostate Gland (one of which gained the Jacksonian Prize of 1860), and especially on Practical Lithotomy and Lithotrity, all of which were founded on original study and research, and were at once accepted by the Profession as works of authority. Mr. Thompson's reputation was already established when he was selected to relieve the late King of the Belgians from a calculus in the bladder. The honour of Knighthood was, it is said, originally suggested by his late Majesty, who gratefully appreciated Mr. Thompson's skill and kindness, and desired that he should receive some public acknowledgment of his services.

THE VICTORIA CROSS AND THE ARMY MEDICAL DEPARTMENT.

When the distinction of the Victoria Cross was first instituted, there were many very worthy and clear-headed officers who feared that its operation might not prove an unmixed good to the service. Now, we should be extremely sorry if the members of the Army Medical Department did anything towards justifying that fear. No doubt it is a very enviable thing to win and wear such a distinction. But if the emulation to gain it be the dominant feeling of a man's heart, he is apt, albeit unwittingly, to make the discharge of his Professional or Medical duties subsidiary to his desire to exhibit his qualities of gallantry and valour. If a man displays great personal courage in the execution of his duty, when called upon by the circumstances which surround him, without going out of his way to seek those circumstances, it is well. But these crosses are apt to offer some temptation to young men to forsake the dull and unromantic path of duty—at any rate, we have heard old and experienced officers declare so! We regret to see such a subject as the withholding the Victoria Cross from a Medical officer made a matter of newspaper comment. Whatever else may be urged against the military authorities, they cannot be charged with having acted ungenerously to Medical officers in this respect: the Department enjoys its full share of this distinction. Still, it is not on this account exactly that we regret the publicity. It is rather because we think that if honorary distinctions are to be made the subject of newspaper comment, men endowed with sensitive minds and a keen sense of self-respect will no longer value them. We know nothing of the Medical officer beyond what we read of him in the pages of a contemporary, and we abstain from naming him. We give him full credit for his bravery and the value of his service, but we must frankly say that we do not think discussions of the kind calculated to advance the interests of the Medical Department or to increase the respect which is due to us as men of education and scientific training. These distinctions ought unquestionably, in our opinion, to be conferred upon the field, or as soon as possible after the act for which they are conferred has been performed.

THE CHOLERA.

The cholera continues to decimate some of the European populations; and though as yet it has not found its way into this country, still it behoves us to exercise all those precautionary measures by which its invasion may be prevented. Though it has of late somewhat decreased in Rome, it has broken out with considerable violence at Frosinone and several of the mountain villages. In Montenegro it still continues. A telegram from Lara states that in Dalmatia there were, up to the 30th ult., 115 cases among the civil population and twenty-two among the military. A correspondent states that, although Montenegro is surrounded by a military *cordon*, the cholera is rapidly extending its area, and is cutting down the inhabitants of Kotunska, Linitschca, and the Valley of the Moratschka. In Sicily the state of things is also bad. From the *Journal de Naples* we learn that in Catania, during ten days, cholera removed from 150 to 170 per day, out of a population of only 50,000. At Menfi, a little town in the province of Girgenti, which contains about 5000 inhabitants, the disease has been very destructive, the number of cases in one day being nearly ninety. The duties of Physicians, chemists, and nurses have fallen on the soldiers, who have discharged them in a manner at once courageous and humane. The streets are nearly flooded with disinfectants, the fluid most in vogue being solution of sulphate of iron. The authorities in the south of France are putting themselves on the alert, and are issuing instructions to the inhabitants. The Préfet of Bouches-du-Rhône has addressed the following notice to the citizens:—"The cholera has reached Sicily, Leghorn, and even Genoa, but the Préfet begs to inform the citizens that all sanitary precautions are being exercised. Passengers arriving in vessels supposed to be infected are placed in quarantine for a suitable period. Already there are fourteen vessels, of which four are steamboats, in quarantine at the port of Frioul." Quarantine has also been established for all ships leaving Leghorn. Under all these circumstances, ought not our Government to display a little more activity?

THE COMPETITIVE EXAMINATION FOR THE ARMY MEDICAL SERVICE.

The next competitive examination of candidates for admission to the Army Medical Service will take place on Monday, the 12th inst., at University College, instead of at Chelsea Hospital, as has hitherto been the custom. There have been fully a hundred applicants for the preliminary papers, but many of these were ineligible—some from having only one qualification, some being over age, and some being married. Why this should be an objection to a candidate we cannot imagine, but it is well that aspirant benedicts should be aware of its existence; and to them it need be no barrier, as, in more than one instance lately, candidates have deferred the fulfilment of their intentions on this matter until they had taken up their position at Netley. We are happy to hear that the present class of candidates at Netley, who have just completed the course and passed the final examination, as also the incoming class about to present themselves for the preliminary examination, are of a high order, Professionally and socially. We trust that the many concessions to the Department, late though they have been, and the marked change for the better in the relations between the head of the Department and his subordinates since the present Director-General came into office, combined with the hope that any sources of irritation still remaining will be gradually removed, may reconcile to their position Medical officers already in the service, as well as induce young men of ability and education to enter it; and inquiry at the Army Medical Department satisfies us that there is at present no lack of candidates. The Director-General was at Netley last week, at the close of the examinations, and made a short address to the candidates in a cheery and genial style. We

regret to learn that, from indisposition, her Majesty has been obliged to postpone indefinitely her intended visit to the Military Hospital at Netley.

THE SEWER FLOOD IN BELGRAVIA.

Few persons who are not actual sufferers have any notion of the frequency with which, not so very long ago, the districts in London which lie in the line of the great sewers were liable to inundations of sewer-water during great storms. Within these very few years any severe thunderstorm would inundate the basements of houses in certain parts of Bond-street near the King's Scholars' Pond sewer, and of the Westbourne district of Paddington near the Ranelagh sewer ; but since these sewers have been reconstructed and connected with the Metropolitan Main Drainage, such accidents have ceased. Still, however, the important districts which are waiting for the completion of the low level sewer, especially the lower parts of South Belgravia, are exposed once in every two or three years to this horrid nuisance. These districts are below high water-mark, and, if their sewers were not protected by flap-valves, would be inundated by a reflux of the Thames through the sewers at every high tide. As it is, during the period of high water nothing can flow out from the sewers, whose contents gradually accumulate till the fall of the tide allows them to disgorge themselves into the river. But if, during high tide, there should be an unusual rainfall, of course the sewers will be filled to an extraordinary degree, and will regurgitate into the drains of the houses which open into them, unless the latter are protected by flap-valves, as they always should be, to keep out gases, rats, and reflux water. The unlucky combination of high tide with violent rainfall occurred last week, and, in consequence, the kitchens and cellars of houses in such low-lying districts as the Vauxhall-road, the Victoria Station, and South Belgravia generally, were flooded with dilute sewer-water, to the height, in some instances, of three feet. The inhabitants may well pray for the completion of the low level sewer, and for plenty of power to the pumps that will have the duty of lifting these occasional floods. Whatever the death-rate of these districts may be now, it ought to show a reduction when they cease to be from time to time inundated as at present. The low level sewer on the north side is waiting for the Thames embankment and the railways. On the south side the sewer is finished, and yet there were grievous cases of inundation in the lowest districts. The means of protection are two—first, the intercepting or high level sewers, which ought not to allow the rainfall on the higher ground to reach the lower; and secondly, the pumps, which ought to be powerful enough to carry off any rainfall that can fall on the waterlogged area, below high water-mark.

OVERWORKED ARTISANS.

We need not wonder at the wan and sickly appearance of some of our labouring classes, when we consider the terribly unhealthy conditions under which their lives are passed. Most of our artisans are compelled to work for a great number of hours and in a polluted atmosphere. But this is especially the case with those who labour in gas factories, and we are therefore glad to perceive that, failing any humane movement on the part of their employers, the men have called public attention to their condition through the columns of the press. In the *Star* of Wednesday there appears a letter from a workman on behalf of his fellows, from which, if his statement be true, it seems that the occupation of gas-workers is indeed a "perpetual grind" of the worst description. It appears that there are at present two gangs of men employed in each gas factory, each gang working on the whole about ninety hours a week, or rather more than twelve hours a day. This is certainly too severe. Twelve hours a day is, indeed, hard work, but when we add that the labour of the "carbonising department" is performed in an impure and highly heated atmosphere, it will be at once evident that the terms of workmanship are more than ordinarily cruel. The demand which the gas-workers make is that in future there shall be three gangs of men, "working eight-hour shifts or sixty hours per week ; " and it is so reasonable a request that we hope the companies will, in common charity, comply with it at once.

THE PARIS CONGRESS ON THE PROTECTION OF ANIMALS.

The report we publish of the proceedings of the Paris Congress for the Protection of Animals will be read with interest. The work of the Congress was singularly practical, and it had the advantage of being free from extreme views of all kinds. To come to a common understanding in respect to method and character of work ; to determine what could be done, and done at once, to save the sufferings and ameliorate the condition of those inferior animals which work for us and die for us—that really was the business transacted—a noble undertaking and labour. As will be seen, our English nation stood out well. An English nobleman was elected (Lord Harrowby) President, and an English Physician (Dr. Donald Fraser) Vice-President. Professor Varnell contributed two of the best papers, and Dr. Richardson gave a special lecture and demonstration on painless veterinary operations by means of ether spray.

THE EMPRESS CHARLOTTE.

The unfortunate Empress Charlotte, having been conveyed to Brussels, has been put under the charge of a Belgian Physician celebrated for his success as an alienist. The hapless lot of this lady cannot fail to touch the hearts of all. The misfortunes which have attended her and her Imperial consort have been great enough to turn the strongest mind, so that there is no sort of necessity for invoking the agency of poison, as many seem inclined to do. Further, there is no kind of poison which acts perennially on the system without being renewed. A powerful corrosive may destroy life long after it has been swallowed, but that in a way easily intelligible to all, for contractions of the gullet or destruction of the coats of the stomach are readily appreciable. If a man swallows a dose of strychnine or morphia, he is either dead within a certain time, or he soon recovers entirely, and the efforts of the Physician are directed to tiding the patient over this critical period. But when we are told of a poison being administered for the purpose of producing madness merely, not for an hour or two—belladonna will do that—but for months and years without any fresh dose being exhibited, we cannot fail to be struck with its resemblance to the myths of the middle ages, and must refer it to the same cause—the vivid imaginings of a rude and uninstructed people. It is among such that the dread of poison is greatest ; among them, also, belief in witchcraft, the evil eye, and other superstitions, are most prevalent. Credulity and ignorance ever go hand in hand.

MEDICAL ANTIQUARIANS.

Not long ago we referred to Sir J. Y. Simpson's valuable researches into the antiquities of his native land, and we have now to notice certain investigations of a like nature, although differently conducted, by Dr. Inman, of Liverpool. The latter gentleman seeks to establish the fact that one great nation or series of nations prevailed from India to Scotland, as evinced by the cairns and pillars everywhere seen, and, wherever seen, invariably found identical in shape and ornament. These pillars he holds to be representatives of the Divine Being, and supports his arguments most ingeniously by a great variety of proofs. Nevertheless, we think that certain other of his conclusions as to the existence of two widely extended races—the Aryan and Semitic—are, if possible, more important. Sir J. Simpson has carefully shown

the gradual advancea made in the characters of the sculpturings, and also from his own point of view established the existence of a race widely spread over Europe in the pre-Celtic period. The two conclusions thus arrived at separately—for in Dr. Inman'a paper there is no notice of Sir J. Simpson's work, and it was probably written before its publication—are of all the greater value on this very account. The two should be read together; for although Sir J. Simpson's is the greater of the two, as containing discoveries not previously made public, Dr. Inman's paper, discussing as it does certain points common to the antiquities of many nations, may to some extent be looked on as a key to the larger work.

SEA-SICKNESS.

We print in another column a case of protection from aea-sickness which may fairly be said to have been effected by the application of ice to the spine. We may recall to our readers' recollection the offer made in our last number by Dr. Chapman to supply members of our Profession who propose to crosa either the English or Irish Channel with the requisite apparatus—if they desire to try on their own persons the efficacy of this preventive measure. Certainly, sea-sickness is one of the most injurious and depressing influences which human beings can be subjected to, and the discovery of a remedy would be a boon to the whole human race. The icebag-to-the-spine treatment seems repulsive at first aight; but the evidence in its favour fairly entitles it to a trial. We see that in the *Dublin Medical Press* a correspondent suggests ice or iced water as an internal remedy. Let this be tried by all means, for we must recollect that "nothing venture nothing have" holds good in therapeutics aa in all else, and that one thing which is tried and fails may suggest another which may succeed; for, as in the present instance, ice for the stomach was suggested by the proposal to apply ice to the spine.

FROM ABROAD—ANATOMY AT A DISCOUNT—ANIMAL VACCINATION.

M. Guardia, the clever *feuilletoniste* of the *Gazette Médicale*, prefaces his account of the "Anatomical Preparations" in the Paris Exhibition with the following diatribe against the anatomists, which, coming from the Paris school, where, if they are not anatomists, what are they? is somewhat remarkable:—

"It is agreed, if not demonstrated, that Anatomy is the foundation of Medicine. Hence that Medical or anti-Medical doctrine which admits of the abstraction of the functions in physiology and of the pathological process in disease. According to the Anatomical School there are only organs and symptoms, and the anatomical doctors, limited to description and local or anatomical diagnosis, are really treating of a branch of Natural History, not of Medicine. On the subject of therapeutics they are ignorant, indifferent, or sceptical—pretty much the same thing. What their promises are worth we only know too well, and the illusions of the microscope no longer seduce others than the lingering and the inexperienced. The micrographists are held in check by the experimenters; and neither physiology nor pathology consenta to depend upon anatomical analysis. The properties inherent to the elements of the living economy—that is, the various expressions of life and the diverse modes of vitality—are not within the scope of the anatomist. Anatomy, however refined we may render it, can never figure other than as an auxiliary science. Experimental physiology begins to apprehend this, and we do hope that sooner or later it will become associated with Clinical Medicine in a reaction with it against the despotism of the anatomists. We shall then perhaps have what Bordeu wished for—namely, an anatomy that is truly Medical, or therapeutical, to borrow the term from Cabanis, who expressed the same aspiration."

Those of our readers who are about to repair to the Paria Exhibition will do well to examine the anatomical preparations of Professor Bruncttl, of Padua, which, according to M. Guardia's report, are true marvels of art. The process employed is still a secret, but its results are very remarkable. All the fluids are abstracted, and the solid parts are left in an extraordinary state of lightness, still preserving a life-like appearance, and all the relationships. The preparations are aixty-six in number, those of the various viscera especially commanding attention. M. Auzoux has also a very rich collection, including his "*homme clastique*," price 1000 francs. The Vienna journals state that Professor Hyrtl even surpasses the collections he had in London.

A discussion has commenced at the Academy of Medicine on what is somewhat singularly termed "Animal Vaccination"—meaning vaccination performed directly from the cow, instead of from arm to arm. It arose from the report by M. Depaul upon the results that had been observed after 611 such vaccinations performed at the Academy—that body undertaking the duty of gratuitous vaccination. As our readers are aware, the practice was introduced by M. Lanoix from Naples, where it has long prevailed; and we believe that it is now very freely supported by well-to-do families in Paris. The conclusions of M. Depaul'a report are very favourable to it. The pustules produced are somewhat larger than those resulting from human vaccination, and the reaction which follows their development is more considerable, without, however, ever going to a serious extent. One important result of the practice will be the ease with which, during the period of epidemic visitations, large supplies of lymph may be obtained.

M. Husson, the Medical Director of Public Assistance, gave an account of the numerous trials he has had made in the Paris Hospitals, where vaccinations and revaccinations have been frequently performed with the lymph taken directly from the cow. For fifteen months—from January, 1866, to April, 1867—heifers have been brought periodically to the various Hospitals, and the number of vaccinations during this period amounted to 9316—viz. 1392 adult men, 2475 adult women, and 5449 children—not counting 803 foundlinga also vaccinated during the same period. Of these 9316, 3589 (38·53 per cent.) were successful, 4576 (49·12 per cent.) failed, and 1151 (12·35 per cent.) were doubtful. Analysing these figures further, it was found that among the adult men there were 16·45 per cent. successful vaccinations, 71·77 per cent. unsuccessful, and 11·78 per cent. doubtful. Among the women there were 17·37 per cent. successful, 74·42 per cent. failures, and 8·21 per cent. doubtful. Among the children there were 53·77 per cent. accessful, 31·84 per cent. unsuccessful, and 14·39 per cent. doubtful. At the Academy of Medicine the successful cases of vaccination in children vaccinated from the cow amounted to 61·82 per cent., and in those vaccinated from arm to arm to 60·53 per cent. Various public establishments besides the Hospitals have had vaccination from the cow performed upon their inmates, and it has become very general in private families. M. Lanoix himself is stated to have practised 9112 vaccinations, 4678 of the number in public establishments; and he has also charged 18,000 tubes with lymph. For the whole of his supplies he has required 400 heifers.

PARLIAMENTARY.—STAFF ASSISTANT-SURGEON MORRIS—THE TANCRED CHARITY BILL—THE POOR-LAW BILL—THE PUBLIC HEALTH (SCOTLAND) BILL—THE VACCINATION BILL—THE FACTORY ACTS EXTENSION BILL—GREENWICH HOSPITAL—FOOD SUPPLY—THE MAURITIUS FEVER.

On Thursday, August 1, in the House of Commons,

Mr. Mill asked the Attorney-General whether he had taken into consideration the evidence produced at the trials by court-martial lately held in Jamaica on Ensign Cullen and Staff Assistant-Surgeon Morris; and whether it was his intention to institute proceedings against those officers in the ordinary tribunals of this country.

The Attorney-General replied that since the hon. member's question had been placed on the paper he had mastered as far as possible the details of the evidence, and it was not his intention to institute proceedings against the officers named in the ordinary tribunals of this country.

The order for going into committee on the Tancred Charity Bill was discharged, and the Bill withdrawn.

On Friday the Poor-law Bill was read a second time in the House of Lords.

In the House of Commons the Public Health (Scotland) Bill passed through Committee.

On the order of the day for considering the Lords' amendments to the Vaccination Bill,

Mr. Vanderbyl said: Mr. Speaker, I move that these amendments be taken into consideration this day three months, in order to get rid of an objectionable and mischievous piece of legislation. As to the Lords' amendments themselves, they are merely verbal, and do not touch the cumbersome, complicated, and impracticable machinery of the Bill. I regret that I did not divide the House on the third reading. Had I done so, I should not now be occupying the time of the House. On that occasion I remarked upon the useless provision of registering Doctors' certificates, and on the humiliating, unjust, and tyrannical manner in which the Bill dealt with a liberal and honourable Profession; at the present late hour (2.45 a.m.) I will draw attention to two public and sanitary objections to the measure—viz., the restricting the vaccination of the poor children of a district to a single station and a single Doctor. The Bill contains many other practical errors in its machinery, but I have taken these two restrictions on the practice of vaccination as sufficient to convince the House that the existing vaccination law is far better than the one under discussion. The "father" of the Bill is the right hon. member for Merthyr-Tydvil, a Welsh constituency, and inasmuch as I see that all former statutes on the subject, which are repealed by this, are expressly stated to apply to both England and Wales, whilst this one avowedly applies to England only, one is inclined to suppose that the right hon. gentleman had accidentally on purpose—(a laugh)—exempted the Principality from this very paternal piece of legislation.

Mr. Bruce: In law "England" will include Wales. (A laugh.)

Mr. Vanderbyl: I am obliged to the right hon. gentleman for correcting me; it is an additional reason why the House, by its vote to night, should exempt both countries from this preposterous Bill. The existing vaccination law has the defect of requiring the superintendence of *two* public departments; this Bill superadds that of a *third*—viz., "the Lords of her Majesty's Council." Now, the Registrar-General has over and over again stated that the intervention of his office in registering Doctors' certificates of vaccination could only do mischief. As to vaccinating stations, they have been tried under the present Act, and, except at the residence of the public vaccinator, have proved a failure. The assembling of a number of children at these stations was found to be highly prejudicial to the public health, in spreading the very contagious diseases of infancy. The stations, in fact, became centres of infection.

The Speaker: The hon. gentleman is out of order; he must confine his remarks to the Lords' amendments.

Mr. Vanderbyl: The Lords' amendments are of so trivial a nature that it is not worth while to discuss them. My motion is designed to throw out what I conceive to be a mischievous Bill, which I had hoped to show in a few words to be very inferior to the existing law on the subject.

The Speaker then put the question that the Lords' amendments be *now* taken into consideration, when the "ayes" so largely predominated over the "noes" that it was thought hopeless to divide the House.

On Monday, August 5, in the House of Commons, the Factory Acts Extension Bill was read a third time and passed.

In Committee of Supply on the vote of £128,635 for Greenwich Hospital,

Mr. Norwood rose, according to notice, to ask the Secretary to the Admiralty what progress had been made towards appropriating a wing of that Hospital to the purposes of the *Dreadnought* Hospital ship. He could not understand the difficulty which the Board of Admiralty raised on the subject. Greenwich Hospital was now nearly empty, and as the Committee of the *Dreadnought* were to bear the expense of converting the part of the Hospital which might be assigned to them, he thought they ought to be allowed to select it for themselves. They wished to have the Queen Anne's Quarter, but the Admiralty said that Queen Mary's Quarter would be better for their purposes.

Mr. Ayrton and Mr. Childers addressed the House on the same subject. In the course of his remarks, the latter said—The state of the Medical Profession in connexion with the two services was most unsatisfactory. The warrant had not had the effect that was anticipated, and the Order in Council had almost had no effect at all. Some better measures must, therefore, be taken to obtain the large number of Medical men required for the army and navy. He would suggest that if they wanted a steady supply of young Medical men for the army and navy they must tap the spring higher up, and establish a Medical College in which young men could be trained as Surgeons for the two services. If it were found necessary to establish such a College, Greenwich Hospital would be the best place for it. If, however, it were occupied in some other way, a large expense would have to be incurred in building such a College either in London or elsewhere.

Lord H. Lennox rose in reply. He said the House was aware that the Government offered the authorities of the *Dreadnought* to hand over to them Queen Mary's wing and a portion of Queen Anne's wing for the accommodation of the officers. The authorities of the *Dreadnought* did not quite approve that offer, and they preferred to have Queen Anne's Quarter. Hereupon a medium course was taken. A conference was appointed, entirely free from either an Admiralty, official, or political character, by the result of which the *Dreadnought* authorities agreed to abide. The conference was composed of the Director-General of the Medical Department of the Navy, Mr. Alderman Salomons, and Sir C. Bright, the Member for Greenwich, Colonel Clark, Director of Works to the Admiralty, several Medical gentlemen of great eminence, the Consulting Physician and Surgeon of the *Dreadnought* Hospital, and, by the particular desire of the *Dreadnought* Governors, Mr. Tatum, the Consulting Surgeon of St. George's Hospital. They reported unanimously that neither Queen Mary's nor Queen Anne's Quarter were suitable for the purposes of the *Dreadnought* Hospital, that they could not be made applicable without considerable expense, but that, if one of the two was to be adopted, Queen Mary's was better adapted than Queen Anne's for the *Dreadnought* Hospital. Thus the *Dreadnought* authorities, having challenged the decision of the conference, found that it unanimously reported that neither quarter was available, and that the one they fancied was the least suitable for them. As an inquiry was pending into the question of Greenwich Hospital, he would say no more than that the suggestions of hon. members should receive due consideration in the committee. Until that committee had reported, the Admiralty would, of course, give no pledge that any one of the changes pressed upon them that evening should be adopted.

After some further discussion and a certain amount of very ungracious remarks from Mr. Candlish and others on the salaries of the Medical staff of Greenwich Hospital, which it was said amounted to £3500 a year, the vote was agreed to.

On Tuesday, the House of Commons went into Committee on the Contagious Diseases (Animals) Bill.

In the course of his speech introducing the Bill, Lord Robert Montagu gave the following details and facts in reference to the supply of foreign meat:—

"The restrictions which had recently been in force tended to raise the price of meat, and, therefore, amounted to a tax on food; it was proposed, therefore, to relieve the people of this imposition, and to do so by means of a general instead of local restrictions. The importations of cattle had gone on increasing till, in the year 1865, we drew our meat supplies not only from Spain and Portugal, from France and Holland, but from Denmark, Schleswig-Holstein, Poland, Galicia, and Hungary. In 1843 little more than 1000 head of cattle were imported; in 1844, 3600 head of cattle; in 1845, 9700; in 1846, 17,000; in 1847, 27,000; in 1857, 53,000; and in 1865, 188,000. Into London alone the importation of cattle, sheep, pigs, etc., had vastly increased. In 1858, 1849 head of cattle were imported into the metropolis; in 1866, 8900; and in 1867, 12,000. These increased imports, of course, facilitated the introduction of cattle plague. . . It was a curious circumstance that the sanitary restrictions imposed had no effect whatever upon the price of meat either during recent attacks or during that which took place in the last century. For the average of five years from 1739 to 1744 immediately preceding the distemper the price of meat was 2½d. per lb.; during the twelve years of the distemper from 1745 to 1756 the price was also 2½d.; during the five worst years of the distemper the price was only 2d. 2-5th; and twelve years after the distemper,

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from 1756 to 1768, the price was 2½d. per lb. The same features were observable in modern times. In 1864 the price of meat ranged from 6½d. to 7¼d.; in the beginning of 1865 from 6½d. to 7½d.; and in 1866, during the time that the cattle plague was very bad, from 5¾d to 7d. . . . Another consequence of the restrictions imposed on account of the cattle plague was that other diseases were almost extinguished; he referred especially to the foot and mouth diseases imported from Holland in 1839, and pleuropneumonia imported from Holland in 1842. In the latter year, and before the disease was imported, the average mortality among cattle in England was from 1½ to 2½ per cent. From that time the percentage rose steadily till it appeared from the reports of the Cattle Insurance Company, in 1848, that three-fourths of all their losses were due to pleuropneumonia. In 1860, 374,000 horned cattle died of disease in England, of which more than one half was due to pleuropneumonia, and from 1854 to 1860 the average loss annually from that cause amounted to 160,000 head of cattle. But after the restrictions were imposed recently what occurred? Why, on March 12, 1867, Professors Simonds and Brown reported that pleuropneumonia and the foot and mouth disease existed only to a very limited extent; and this, they stated, was due to the restrictions on the movement of cattle, by which they estimated that we saved annually £1,000,000 worth of food. Various agricultural societies were accordingly of opinion that the same restrictive powers which had been applied to the cattle plague should be applied to other diseases as well. With that recommendation, however, he was not ready to concur, as the proposal was surrounded with a great many difficulties. Most persons looking at a Continental *Bradshaw*, and seeing that the railways came straight from Hungary and Poland to Rotterdam, jumped to the conclusion that all importation should be stopped. But we might as well attempt to sweep back the tide with a broom as to keep out foreign meat. Some persons maintained that the grass lands in the East of Europe were the home of the cattle plague, and that, as long as cattle were allowed to be brought from thence, we should always run the risk of introducing it; and hence that if cattle were allowed to be imported they should invariably be killed at the port of landing. Under the present regulations, cattle were killed at all the ports, with the exception of Harwich and Southampton, where the imports for London were so enormous that to attempt to enforce such a system would occasion a violent disturbance of trade, and an amount of inconvenience that would be almost intolerable. Then it was contended that dead meat might be sent into the metropolis in the same way that it now came from Aberdeen and the North of Scotland. But it must be borne in mind that in that case the consignee was the loser in case anything went wrong. But with foreign meat the risk was that of the foreign owner. The greatest difficulty, however, was as to the feeding of them. Two-thirds of the cattle that came to London were consumed at the East-end. But if they were all killed at Harwich or Southampton, only the best joints would be sent up, for only these would pay for the carriage. The working classes fed on shins of beef and offal, yet these were precisely the parts which it would cost too much to send by railway. Then it was proposed by some that quarantine should be established at those ports. Now, store cattle were never imported from abroad, fat cattle alone being brought into this country, and if fat cattle were put into quarantine they lost considerably in value."

The Public Health (Scotland) Bill was read a third time, and passed.

On Wednesday, August 7, in answer to a question by Mr. J. A. Smith respecting the fever in the Mauritius, Mr. Adderley said that the last information received from the Mauritius respecting the yellow fever was dated May 20, and was to the effect that the state of health had been improving since May 2. The total number of persons who had died in Port Louis and adjacent districts up to that period was 7000. The Governor had already instituted a most searching inquiry into the cause of the epidemic.

St. Thomas's Hospital.—The foundations of the new Hospital have been already laid under the skilful direction of Mr. Barry Currey, the architect. Of the several tenders for the erection of the building we believe that of Messrs. Perry was the lowest—the sums demanded by these contractors being for a building of stone and red brick £332,748, and for one entirely of stone £356,780. There were fourteen competitors for the contract.

NOTES ON MEDICAL EDUCATION.

THE SYSTEM OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. III.

In our two preceding articles we have been engaged in comparing some of the general educational arrangements in the Medical Schools of London and Paris. In our last article we were especially concerned in describing the distribution of work amongst the different members of the professorial staff. We now proceed, in accordance with our promise, to consider the system and mode of appointment of the teachers in the two schools.

Here, at the very outset, we meet with a great difficulty—a difficulty of this kind:—We are conscious that we are making the very singular attempt to compare *two* things, *one* of which does not exist. Up to the present time we have been speaking of *systems*, comparing *systems*, and our readers will probably remember that at starting, in bitter anticipation of the strait in which we now find ourselves, we bewailed the *absence of system* in the Medical schools of this country. Still, so far as we have hitherto gone, we have had the advantage of a distinct scheme before us—something tangible to criticise—some facts to which we could refer with confidence.

Alas! Now we have no remnant of plan or system to appeal to.

In Paris a definite system exists, in accordance with which the teachers of the Faculty of Medicine and the Medical officers of the Hospitals are appointed. Therefore those who have an ambition to be either one or the other know precisely what they have to prepare for.

But in London how is it? Is there a system of any kind adopted here, either in the appointment of teachers to the Medical schools, or of Physicians and Surgeons to our Hospitals? If such a thing exists, who is there that can tell us anything about it? Is it the same for all the schools, or has each school a different system?

In the appointments that have been made at one or two of the Medical schools in London, we have occasionally observed something approaching to a system started and for a time adhered to; but after a longer or shorter interval, and without any sufficiently apparent cause or explanation, it has been cast over. For example, a certain school, let us say, has had a singular success as an educational institution, and has derived great lustre and prosperity from the brilliant careers of its former pupils, and it resolves to adopt the very wise system, under the circumstances, of appointing none but its own alumni to fill vacancies occurring in its teaching staff. By so doing it shows its confidence in its own system of training; in its own power of providing professors not only good enough for the requirements of other similar educational establishments, but even up to its own high standard. Fickle, uncertain, unnatural, suddenly it withdraws its fostering wing from its own brood and takes up with a stranger's progeny. It voluntarily puts on a penitential garment of self-humiliation, and proclaims to the world its own failure and its own insufficiency; and so this attempt at system ends in self-destruction.

But generally no trace of system is discoverable in the appointments which are made in our Medical schools. Who shall say why Smith was placed on the Surgical staff of St. Gregory's, and why Brown was made professor at St. Timothy's, when Jones in the one instance, and Robinson in the other, were passed over? Yet we well know that both Jones and Robinson are abler men than Smith or Brown. Perhaps, if we were curious enough to make inquiries amongst the persons interested at these particular schools, we should learn that Smith, of St. Gregory's, had been very useful to Professor Simpkins of that school, and that, as Simpkins's influence there was all-powerful, therefore Smith's claims

were preferred to those of Jones; or we might be told at St. Timothy's that Brown's father had always doctored the treasurer of St. Timothy's, and as that worthy and important functionary was never so happy as when engaged in perpetrating a job, therefore young Brown got the professorship.

We will quote another case:—A Medical man returns to England after an absence say of fifteen or twenty years, and, on visiting his old Medical School, to his utter amazement he finds the notoriously stupid Slowcoach performing, with great gravity, the functions of Physician and Professor. "How is this?" he inquires. A very brief answer is given him. Slowcoach had money and could wait. These are imaginary cases; but who does not know, or has not known, their parallels in actual life?

When will the superb, self-applauding, incomprehensible English people put away their love of personal influence and their tenacious adherence to every petty shred of private patronage, and learn higher principles of justice and expediency even from neighbours whom they may affect to despise?

Whatever may be the disadvantages of the system of appointment which we are about to describe, it is responsible for no such grave failures as those to which we have just alluded. Respectable dulness and wealthy stupidity are essentially excluded.

Imagine the astonishment of the Medical world of London on reading some day in the advertising pages of this Journal an announcement to the following effect. Conceive the wiping of spectacles and their amazed readjustment in certain influential quarters.

"St. Barnabas Hospital and Medical COLLEGE.—A PUBLIC COMPETITION for the vacant Professorship of Clinical Medicine in this College, and also for the vacant office of Surgeon to the Hospital, will be opened at the Central Office of the General Medical Council on the —— day of ——, 18——, at 10 o'clock a.m.

"Candidates who are qualified according to the prescribed regulations, and who must not be less than 30 years of age, are requested to enrol their names at the Secretary's Office."

We repeat, only imagine the consternation of present and would-be Hospital Professors and Medical officers at the idea of establishing a public competition for the post they fill or wish to fill. Yet this is just the difference between the mode of making such appointments with us and with our French neighbours. Open, public competition is the principle which regulates the nomination of the teachers of the Medical Schools, and of the Physicians and Surgeons of the Hospitals of Paris. We shall be told that this principle is not, in every case, adhered to, and that it is competent to the Emperor to appoint a Professor without reference to any preceding public trial. We may also be told that the *concours* is not now applied to the appointment of Professors, but only to the *agrégés* and the Medical officers of the "Administration of Public Assistance." This is true, but it is also true that the *agrégation*, as it is called, and the *Administration de l'Assistance publique*, are the two high-ways which lead directly to the *professoriat* and the offices of Physicians and Surgeons to the Hospitals of Paris. A Professor may occasionally be appointed by the Emperor who has never been an *agrégé*; but this circumstance is so rare, that on a recent occasion, when a gentleman of acknowledged talent, ability, and power, as a teacher, was so appointed, it was some time before he could obtain a patient hearing from his class, so great was the indignation of the students at this infringement of principle.

The *agrégés*, then, are appointed at a *concours*, or public competition, and the Professors, as a rule, are selected from the *agrégés*.

The following are the official regulations which apply to the appointment of Professors:—The Professors are nominated by the Emperor. When it is necessary to proceed to the nomination of a Professor in a Faculty, the Minister proposes to the Emperor a candidate selected either from amongst the Doctors of Medicine who are at least 30 years of age, or from a list which is always demanded from the Faculty in which the vacancy has occurred. In order to be appointed Professor in a Faculty, when not amongst the list of *agrégés*, it is necessary to be at least 30 years of age, to be a Doctor in that Faculty, and to have given, during two years at least, either a course of lectures in an establishment connected with the State, or a private course, properly authorised, analogous to those which are given in the Faculties. Members of the "Institut" can also be nominated to Professorships in the Faculties if they have given, during six months at least, a course of lectures in accordance with the conditions above indicated.

Under any circumstances—*mirabile dictu!*—provision is made for ascertaining if a man *can* lecture before he is made a lecturer! We call especial attention to this very un-English arrangement.

But we have just stated that, as a rule, the Professors are chosen from the *agrégés*, from amongst those who have served a kind of apprenticeship in teaching and lecturing. The *agrégés*, as we have also stated above, are nominated after a public competition. We have now to inquire what are the regulations under which these public competitions or *concours* take place.

1. In order to be admitted to compete for the *agrégation*, it is necessary to be a Frenchman, or naturalised—(one of our own countrymen is one of the *agrégés* in the Faculty of Medicine of Paris at the present time)—to be five-and-twenty years of age, and to be provided with the diploma of Doctor of Medicine. The periods at which the *concours* are to take place are determined by the Minister, and they are announced by advertisement in the *Moniteur* at least six months before the opening of the trial.

2. Candidates have to leave their names with the Secretary of the Academy at least two months before the opening of the *concours*. At the same time, they have to deposit certificates of the services they have rendered to the science of Medicine, as well as copies of any works they may have published. The list of competitors is revised by the Minister and by the officers of the Faculty.

3. The judges in the competition are appointed by the Minister, and are selected from among the members of the Imperial Academy of Medicine.

4. The number of judges for each *concours* is at least *seven*, and at most *nine*, including the president.

5. Two persons who are related, to the degree of first-cousins inclusive, cannot sit on the same *concours*; nor can any one related to either of the candidates, in the same degree, take part in the jury.

6. Any one who has been prevented from attending any one of the *séances* of the *concours* ceases to be a member of the jury.

7. The judgment of five members of the jury is conclusive.

8. The subjects to be treated by each candidate are drawn by lot. The compositions are written under the surveillance of one of the members of the jury.

9. In each *concours* there are two kinds of exercises; the first is termed "Preparatory Exercises," the second "Definitive Exercises." The preparatory exercises consist—(1) In an estimation of the labours and services of the candidate anterior to the *concours*. (2) In a written composition upon a subject connected with anatomy and physiology. (3) In an oral disquisition of at most three-quarters of an hour's length, made after three hours of preparation in a closed room upon a subject, drawn by lot, bearing on some branch of Medical science.

Five hours are allowed for the composition of the written paper, which takes place in a closed room, under the surveillance of a member of the jury. These compositions are read in public by the candidates themselves.

The *definitive* exercises consist in an oral disquisition, in practical tests, and in supporting an argument. The oral discourse is made, after twenty-four hours' preparation, upon a subject chosen by lot connected with the subjects taught in the Faculty. It lasts an hour.

The practical test varies, and depends upon the decision of the president and members of the jury. In some cases the candidates are given patients to examine, and, after an examination of not longer duration than five minutes, they have to speak on the case for half an hour.

Finally, each candidate has to compose a *thesis* and support it in an argumentation with two of his competitors.

After the preparatory exercises the jury reduces the list of competitors to three, if there is but one place vacant; five, if there be two vacancies; and two for each place when there are three or more vacancies.

Such is a brief general sketch of the system of public competition or *concours* which is adopted in the appointment of the teachers in the Medical Faculties of France.

We shall return to this subject in our next article.

AN EPIDEMIC AT CRETE.—The *Pall-mall Gazette* of Wednesday states that, according to intelligence received at Constantinople, an epidemic of some contagious disease has broken out with great violence in Crete.

REPORT OF THE

THIRTY-FIFTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

HELD IN DUBLIN, AUGUST 6, 1867, AND FOLLOWING DAYS.

(From our Special Correspondent.)

THE first meeting of the British Medical Association upon Irish ground—an event long desired both by the Association at large and by many of the Profession in Ireland—has at length taken place under the most favourable auspices. The arrangements made by the University of Dublin and the College of Physicians for the accommodation of the Association are perfect, and with the heads of these bodies the Royal College of Surgeons and the Dublin Obstetrical Society vie in giving a splendid and hospitable reception to their visitors. The meeting has even already proved to be the most numerous and most influential which has taken place since the formation of the Association.

So far, too, the weather has been most auspicious. The ground, which had been rendered parched and dusty by the absolute rainlessness of the preceding week, has been refreshed, in the commencement of the present, by a few gentle showers, followed by brilliant and gladdening sunshine, and the Emerald Isle appears in all her characteristic verdure.

Those members who have reached Dublin direct from London by the express train and packet boat are full of admiration of the ease and rapidity of that model journey, as well as of the beauty of the Irish coast, which is seen to such advantage under the lights and shades of an autumnal afternoon.

Owing to the vast number of papers to be read, it has been determined on this occasion to divide the business into sections—an arrangement for which the new buildings in Trinity College, placed by the Board at the disposal of the Association, present peculiar facilities. For the information of those of your readers who have not been so fortunate as to take part in the present most interesting *réunion*, I may describe a lofty hall, supported on numerous pillars, forming in themselves a museum of Irish and English marbles, from which four spacious lecture-rooms are entered. In these the sectional meetings, (A) Medicine, (B) Physiology, (C) Surgery, and (D) Midwifery, are held. Opening into the same hall are commodious committee-rooms; so that the whole practical business of the Association can be most conveniently carried on under one roof. The general meetings are held in a separate building, the spacious Examination Hall, which, decorated with the full-length portraits of Queen Elizabeth, the foundress, of Archbishops Ussher and King, and other benefactors of the College, with the splendid monument to Provost Baldwin, and with, at the extreme end, the venerable organ taken in the Spanish Armada, presented, when crowded with members and graced with the presence of some ladies (another new feature at the present meeting), to hear the opening address of Dr. Stokes and that in Medicine by Sir Dominic Corrigan, Bart., presented from the dais a most striking and pleasing *coup d'œil*.

While speaking of this time-honoured institution, which has afforded to the British Medical Association such a cordial and hospitable reception, I am anxious to remove an erroneous impression which may have been created by a paragraph which appeared in your publication of the 27th ult. (p. 95). It is there remarked that "the rejection, by the casting vote of the Speaker, of Mr. Fawcett's motion for opening Trinity College, Dublin, to students of all religions, is a shadow thrown before by the coming event." The fact is, that Trinity College, Dublin, has for a very long time been open to students of all religions, and that very many Roman Catholics and Protestant Dissenters yearly avail themselves of the advantages it holds out equally to all. In this institution is to be found, perhaps, the very best example in existence of united education, and of the enlightened and liberal views which follow therefrom. In it are thirty free studentships (sizarships), open to competition without religious distinction, the successful candidates being entitled to their tuition and commons free of charge. All the professorships, except those of theology, are likewise open to all alike. In addition to numerous valuable prizes and exhibitions, and, like them, open to the competition of all, are fourteen University studentships of £100 a year each, tenable for seven years. Where, then, is the grievance? That the Corporation of the Provost, Fellows, and Scholars of Trinity College is restricted, *by the will of the founder and benefactor*, to members of the United Church of England and Ireland. To meet this alleged grievance, the liberal and enlightened body who govern the College some years ago endowed a number of non-foundation scholarships, limited only by the merit of the candidates, equal in value to the foundation scholarships, and open to the competition of all without religious distinction. The Medical Scholarships are, of course, similarly open.

I must, however, leave this subject, on which I could still further dilate, to bring before your readers a report of the first day's proceedings of the Association.

Members were invited, on arriving, to present themselves at the reception-room in the King and Queen's College of Physicians, where every information was at once afforded to them. At 10 the Committee of Council met in the new Museum buildings in Trinity College; at 11 the General Council met in the same place; and at 2 the first general meeting of the Association was held in the Examination-hall, Dr. Edward Waters, the out-going President, in the chair. He was accompanied to the dais by the newly elected President, Dr. Stokes, and by Sir Dominic Corrigan, Bart., M.D.; Sir James Simpson, Bart., M.D.; Sir William Wilde, Dr. Francis Cruise, one of the secretaries; Dr. Sibson; Rev. Dr. Moore, S.F.T.C.D. The entire body of the large hall was occupied by members from all parts of the kingdom. On the platform a number of ladies were accommodated with seats.

Dr. WATERS (the retiring President) then came forward amid applause, and said:—Ladies and gentlemen, all unworthy as I am of so great a privilege, yet, as still occupying for the time being the proud position of President, the high honour necessarily devolves upon me of inaugurating the first meeting of the British Medical Association in Ireland, the natural birthplace of warriors, poets, and orators—of a race richly endowed with an innate capacity and love for the fine arts, and yet equally distinguished for eminence in all the walks of literature and science. In no field of knowledge is Ireland more distinguished than in that to the pursuit of which the members of our Association are specially devoted. Even in the presence of those who by their co-operation in our proceedings are about to shed a lustre over the deliberations of this our thirty-fifth anniversary, I may be permitted to say that though at all times and in every department of professional study Ireland's sons have ever occupied a foremost place, at no period could she boast a nobler array of eminent men than those who adorn our programme, and whose names are destined to be transmitted to future generations as worthy successors of those who have preceded them. The Parliament of the United Kingdom is about to conclude one of the most important sessions that the United Kingdom has ever known. We, on the contrary, are entering on the labours, the agreeable as well as useful labours, of the thirty-fifth session of what may be justly termed the British Medical Parliament, and on no previous occasion has the Profession been more fully represented. Thanks to the energy and hearty good will of our hosts—to the love and esteem felt for the veteran teacher who is about to preside over us—to the fame and ability of the readers of the addresses, and to others of our *patres conscripti* who have come forward to favour us with contributions—to crown all, thanks to the warm welcome given us, and to the hospitality which is the national characteristic of the people of Ireland, our present meeting promises to be *the* meeting of the Association, for our Irish brethren have at last joined our ranks. (Hear, hear.) The present session of Parliament will

constitute an era in the history of our country, and upon the great measure dependent upon it grave doubts are expressed. The present session will also mark an era in the history of the British Medical Association, but with regard to its results no doubt for a moment can be entertained, for beyond all question we have the co-operation and assistance of the Profession throughout the United Kingdom. (Hear, hear.) Gentlemen, my most pleasing duty now (for it is not for me to occupy your time) is to thank you for your forbearance with my shortcomings, your kindly consideration, and for your generous efforts in my regard during my year of office. The laying down of honours is generally associated with something of regret—something even of pain. Gentlemen, on the present occasion I declare that it is with infinite and unalloyed pleasure I resign my honoured seat, for I yield it to one whose benevolence, courteous bearing, and whose broad philosophic mind will really do honour to the Association. (Loud applause.)

Dr. Stokes then came forward, amidst general applause, and delivered the following address:—Mr. President of the Council, and Gentlemen,—My first duty on taking the chair, which during the past year has been so ably filled by Dr. Waters, is to return thanks for the honour you have conferred on one personally a stranger to most of you in naming him as your President on the first visit of the Association to Ireland. Your Society is one altogether peculiar in its organisation, and in which we recognise the union of the three kingdoms for objects that are good, and consequently great. And so we are proud of our institution, proud of it as followers, and therefore as teachers of science, for every man who practises Medicine or Surgery in a true spirit is himself at once a learner and a teacher. Yet it is not on this ground alone that the British Medical Association is to be considered, for from its very beginning, more than a quarter of a century ago, it has kept other and, in a sense, higher objects in view. It has in good earnest sought to raise the social status of Medicine by the labours of science on the one hand, and the labours of love on the other. And in this object the records and experience of the past show that it has been successful. It has largely added to the scientific reputation of British Medicine and Surgery, and it has advanced the social concord of the great body of our brothers who are engaged in the godlike art of healing, which is like mercy, "blessing him that gives and him that takes." We seek to draw closer to one another all men who in good faith and honour work for the sufferer in body or in mind, no matter what may be their respective stations, their degrees, or ranks in society, no matter what may be the class or position of those for whom they labour; for to the true Physician (I use the word in its widest sense) sickness levels all ranks, and we can affirm of our brethren that the friendless and the destitute receive at their hands a sympathy and a care which often surpass that which station or wealth can command. These works are done, though as yet the world knows but little of them. They are done instinctively, following the precept and example of the founder of our religion, the right hand unknowing what the left hand doeth. They are done through a special influence, as yet not fully recognised, of the study and practice of Medicine upon the understanding and on the heart. Therefore, to draw closer the various members of the varied ranks of our common Profession, which, in one sense, is the most united, and, in another and in a lower sense, has been the most divided, is a great and worthy end. It is to bring the force of the whole to bear on the common weal, and by union to strengthen the hands of the separate workers in the exercise of that power which is animated by charity, guided by knowledge, and which observation, rendered fruitful by study, makes every day more and more an instrument of good. Of the influence of the science of Medicine on the understanding, it may be said that that science has it, in common with every branch of knowledge which is based on observation and induction; but that it animates the heart is also true; for to do good, even from necessity, moulds all so engaged, unwittingly to themselves, to be more or less ministers of Christ's work upon earth. It is plain that this result of the exercise of our Profession should work in all directions, and that in our relations to one another we should apply the same qualities of mind, the same self-abnegation, the same enlightened and catholic spirit which is the great result of our work. In the earlier stages of civilisation, men gathered themselves into families or tribes, which from natural causes became mutually hostile, and therefore ignorant of one another; hence a state of war became their normal condition; and even now, when, by the consolidation of tribes, great empires are founded, our peace, when it does prevail, is an armed peace. It was to remedy a similar state of things in Medicine, which, at least in this country, embraced many tribes whose interests were held to be separate, and whose relations were mutually hostile, that, in founding the Association, Sir Charles Hastings and the far-seeing men who worked with him, kept in view its operation, not only as a scientific body, but as a means of promoting friendly feelings by the personal interchange of kindly offices, a means of getting rid of prejudices and of neutralising those corporate jealousies so long the bane of our Profession. Thus, they not only hoped, but foresaw that the time would come when that Profession would be bound together as a united body, looking ever upwards, and strong in mutual respect and mutual confidence. The experience of the working of the Association warrants us in holding that, in a large measure, these anticipations have been fulfilled, and already we can see the proofs of a sounder feeling amongst the members of our Profession. And this result has a wider application than appears at first sight, for it must largely subserve the interests of society. This has been excellently put by Sir Dominic Corrigan, in a speech lately delivered at the inauguration of the statue of Sir Henry Marsh in the College of Physicians, on the harmony and the mutual respect which have so long distinguished the Profession in Ireland, and on the advantages which thereby accrue to the public at large. Looking at the great question of the social and scientific advancement of Medicine, we find that among the general desiderata there are some dependent conditions more or less extrinsic to the Profession. Many of these have been ably handled by Mr. Rumsey and other writers on state Medicine; but to obtain them will be a work of time, depending first on the education and the consequent influence of the Profession itself, and next on the progressive enlightenment of society and of Government. In the practice of Medicine, as it exists in these countries, two methods exist; one, the trade element, which if not the governing principle is at least very prominent, and the other the Professional. The gradual elimination of the first, and the consequent advance of the second, are the great objects of all who seek to raise the status of our calling in a social and scientific point of view. Medicine is not any single science; it is an art depending on all sciences. Indeed, it may be said that there is no branch of human knowledge that does not in its turn subserve to it; and, therefore, were there no other reason, its social status should be at least on the same level with that of divinity or law, not so much by the possession of honours or titles here or there distributed, but by the comprehensiveness of the general education of those who enter it. If we look to the Medical Register, we shall find that the number of individuals holding such a qualification as simply a course of education in arts, such as is the rule in the sister professions, is very small, and this reacts on the scientific character as well as the social rank of Medicine. In most cases a general cultivation of the mind is the best preparation for the pursuit of any special branch of knowledge. It may be held that it is unnecessary to insist on this. I am sorry to say that I hold a different opinion. It is most necessary to insist upon it. It may be said that compulsory education interferes with the liberty of the subject, but does not ignorance enslave and degrade for life? Yet there are objects of good which are attainable by ourselves, and of these I may specify two among many—the determination of the laws of epidemics, and the placing our knowledge of therapeutics on something of a scientific basis. It was held by Humboldt, as we read in his "Cosmos," that the former question is one of the most obscure and difficult of inquiries. And here I may call to your minds the proposition of Graves, that the different Governments of the combined world should unite in the establishment of Medical observatories in their respective dominions, in the various latitudes of the earth, where a careful record of every meteorological and terrestrial phenomenon should be kept, with all the accuracy of the latest science in connexion with observations of the rise and progress of every epidemic. Thus a combined series of observations would, after a time, lead to knowledge, negative or positive, as the case might be, which would be invaluable. The second desideratum is to settle the therapeutic science, which, at present, is little more than traditional empiricism. Not the less valuable and trustworthy on that account, for in all traditions there is an element of truth. What is wanting is, to have applied to therapeutics the same method of scientific investigation which is used in other

inquiries. This all-important question has been raised in the Medical Council, which is charged with the care of our Medical Pharmacopœia, and it was proposed by Dr. Acland that a portion of the funds should be used to defray the expenses of scientific investigations as to the value of medicines. The framers of the Pharmacopœia can reject or admit this or that, and, until the values of these medicines are established by severe investigation, we shall go on in the old way. I refer even to the discussions in the last two sessions of the Council. Dr. Acland's motions were lost, but they had the support of a strong minority. It is hoped that he will persevere. A similar course was taken by Professor Bennett at your last meeting; and a small grant of money was made to him to initiate observations on the value of a single remedy. We all look forward with interest to this report and to the debate which is to follow. Before I conclude, I may ask your attention for a few minutes to allude to some details in connexion with the present meeting. It has appeared to the Council that, looking at the probable amount of work to be got through, it would be wise to adopt the system of lectures; and it has been resolved that lectures on Medicine, Surgery, Midwifery, and Physiology should be instituted on the nomination of the presidents and secretaries of these sections. It was the desire of the local committee that some of these offices should be filled by members from the other side of the water; but in obedience to a wish generously expressed at the meeting of the Council in Birmingham, at which I had the honour to attend, these offices have been filled by members of the Profession in Dublin; and we think that the Association will not have cause to regret our election of those distinguished gentlemen. You will perceive, by referring to the programme issued by the Central Council, that it has sought to remedy a defect admitted by many in our former meetings—namely, the introduction of the current or official business during the time which should be occupied in the scientific labours of our body. It is recommended that we should get through all the necessary and official work on the first day, leaving the remaining days to be devoted to the addresses in Medicine and Surgery, to the reports on questions for debate, and to the working of the various sections. To insure success to this project, it is manifestly necessary that members who address the meeting shall condense whatever observations they will have to make as much as possible. To the inquiring stranger, Dublin presents many objects of interest, and one of the first of them is this great College, within whose walls we are now assembled, with its noble library, schools, and museums. The museums of geology in connexion with the School of Engineering will well repay a visit, as well as the School of Physic and its recently erected laboratory, dissecting-rooms, and museum of Materia Medica. The libraries of the Royal Irish Academy, the Royal Dublin Society, that of the King's Inns, and of Archbishop Marsh, all are worthy of inspection. I have spoken of our museum of geology. The great anatomical museum of the Royal College of Surgeons, and the pathological museum of the Richmond Hospital, created by the energies of Professor Smith, contain many objects of interest. I may notice two more museums, though not of a Medical character—the Industrial Museum in Stephen's-green and the Museum of Irish Antiquities in the Royal Irish Academy—a collection of national antiquities only inferior to that of Copenhagen, and for the foundation of which Ireland is indebted to her great antiquary, the late Dr. Petrie. The Botanic Gardens of Trinity College and those of the Dublin Society should be seen, as also the Zoological Gardens, the grounds of which were once the pleasaunce of the Knights of St. John. It was long the wish of Sir Charles Hastings and those who laboured with him that the operation of the British Association should be extended to Ireland. This wish was expressed at the Edinburgh meeting in 1856, held under the presidency of the illustrious Allison, and during the first session of the Medical Council, Sir Charles Hastings spoke on the subject with some of the Irish representatives on the Council. At this time, however, it was considered that, looking at local circumstances connected with the working of the new Medical Act, and the necessarily unsettled state of Medical education, it was better to postpone the visit of the Association to Dublin for a few years. In this view Sir Charles Hastings fully concurred; he hoped that the time was not far off when all difficulties would be removed, and the event has justified the anticipation; and now, in the name and by the permission of the heads of the University of Dublin, it is my happy privilege to bid you welcome. This University, long the fosterer of its Medical faculty, and by whose wisdom, as in the old English Universities, the academic rank of Medicine and of Surgery is kept on a footing of equality with that of divinity and law, has done its best to honour the Association and to make its visit memorable in academic record by crowning with its highest honours our President of Council, Dr. Sibson, and some of the foremost members of your body; and so we meet in the halls of Usher and of Berkeley, of Swift, and Burke, and Goldsmith, of Curran and Grattan, of Hamilton, M'Cullagh, Lloyd, Hearne, and of Graves. The address in Medicine will be given by the distinguished representative on the Medical Council of the Queen's University in Ireland; the President of the Royal College of Surgeons will take the chair at the Surgical lecture; and the committee of reception contains representatives of all the Medical corporations. This visit of the Association has a special significance, as being the first ever paid to Ireland; and we rejoice to see so many representatives of British and Scottish Medicine and Surgery coming among us—the representatives of so truly an enlightened section of British society. The history of Ireland is a singular one. More than a thousand years ago she was the centre of the Christian civilisation of Western Europe. Once vanquished, though not conquered, by the Northman—torn by internecine war, and exhausted by fruitless contests with England, she at last united with her; and the two countries are now beginning to know one another better, and to excuse or explain or forget what was wrong on either side, and to know and estimate that which is right. According to the use that is made of them, and according to the amount of truth or untruth that may be in them, the traditions of the past may be fruitful in evil or in good. But with the advance of education, of intelligence, and, above all, of intercommunication, old ignorances, old prejudices, old memories of wrong, and forgetfulness of right, will fade away. This visit will hasten the time when the crown of our loved Sovereign will surround and embrace in its golden circle an united and a happy people. The day is coming; and therefore it is clear that this meeting has a national as well as a scientific importance, which recommends it to all loyal and all right-thinking men.

Dr. Paget (Cambridge) then moved that the cordial thanks of the meeting be given to Dr. Waters for the able manner in which he had performed the duties of President for the past year, and that he be appointed permanent Vice-President. He said that in the midst of that brilliant meeting they should not forget the meetings of last year, and they could not forget the ability and the courtesy with which Dr. Waters, the then President, conducted the proceedings, and the hospitality he had exhibited. (Hear, hear.) He thought that with their thanks they might reasonably add their congratulations to Dr. Waters. He had had the honour and happiness of being elected President of a successful and prosperous Association, and on resigning office he had, perhaps, the greater satisfaction of knowing that it had become still more prosperous. (Applause.)

Dr. Stewart, London, seconded the resolution, which passed by acclamation.

Dr. Waters said that at the expiration of this his year of office he had only to thank his brethren for the warm co-operation which he had received during his tenure of it. His labours had been really insignificant, for, what with the late President of their Council, and their excellent committee, there had been but little left for the President to do. As regards the last meeting, it was a subject of gratification to him to find that it had met with the approval of the members, but it was a higher gratification to him to know that it was succeeded by the first meeting of the Association in the kingdom of Ireland. (Hear.) It had been long the ardent wish of the Association to pay a visit to this country, and its warm reception would never be forgotten by the members. (Applause.) He had to return them his most sincere thanks for the cordial vote of thanks which they had accorded to him.

REPORT OF THE COUNCIL.

The Secretary (Mr. T. Watkin Williams) then read the report of the Council, which stated that the number of members on the books this year was 3085, as compared with 2500 last year. The sub-committee, appointed by the Committee of the Council to consider the mode by which the Profession at large might be directly represented on the General Medical Council, had to report that they met at Chester, on July 17 last, and carefully considered the question, and they were of opinion that eight members, to be elected by the registered members of the Profession, should be added to the Council, four for England, two for Ireland, and two for Scotland. The Council had witnessed with much satisfaction

the endeavours made by the General Medical Council of the United Kingdom to obtain an amendment of the Medical Act and to improve Medical education. They regretted to find that their efforts to obtain an amendment of the Medical Bill had not yet proved successful. Petitions on the subject had been addressed to both Houses of Parliament, and the President had addressed a communication to the Secretary of State for the Home Department, who had promised it his best consideration. The Committee of the Council, in accordance with a desire expressed by many members of the Association for a change of form in the journal, had decided on selecting a quarto size, and they trusted that the shape, tone, and type adopted would meet with as general approval as its editorial management.

Sir Dominic Corrigan moved the adoption of the report and statement of accounts, which were both very satisfactory.

Dr. Radclyffe Hall, Torquay, seconded the motion.

Dr. Stewart (London) said he would move as an amendment upon the report:—"That this meeting, while deeply impressed with the propriety and justice of a direct and substantial representation of the general body of the Profession in the Medical Council, considers it highly inexpedient that the number of the Medical Council should be increased." There was at present a Council of twenty-four members, and he thought it was generally admitted that that number was sufficiently large, and that the expense of working it was very great. If they added eight members to the Council in order to get a representation of the general body of the Profession, they would increase the expense of working the Board by certainly one-fourth.

Dr. Markham (London) seconded the amendment, which, if adopted, would, he said, be the means of preventing the Association doing a very impracticable thing. The Council at present consisted of a number of gentlemen who were the highest representatives of all classes of the Profession in this country—(hear, hear)—and he believed they had now arrived at a point when there were positive signs of their doing a great deal of good in the way of advancing Medical education. (Hear, hear.) The only argument he had heard advanced as to the representation of the body in the Council was that put forward by Mr. Husband, that the Council did not do justice to the Profession by not recognising, among other things, apprenticeship in the modern sense of the term. He at once joined issue with Mr. Husband, and stated that the Medical Council did distinctly recognise the existence of such an apprenticeship—(hear, hear)—and, as it was utterly impossible to have a better representation in the Council, the Association could not accept the recommendation of the Committee. (Hear, hear.)

Mr. Husband (York) said it could not be supposed that the sub-committee of the Council, the Committee, and the General Council could have almost unanimously approved of a change in the Medical Council if arguments had not been advanced in favour of such a change. In the Medical Council of the country he held that there had been no direct representation of the hard-working general Practitioners—the men who were the bone and sinew of the Medical Profession, and, unless there were such a representation, the Council would not be in a state of perfection.

Dr. Waters (ex-President) supported the recommendation contained in the report, and contended that there should be more of the representative action at work in the constitution of the Council.

Dr. Lankester (London) was of opinion that the Profession generally should be represented on the Council board—(hear, hear)—and there was not a proper representation upon it at present.

The amendment was then put from the chair, and was declared lost by a majority. The report was passed.

Re-election of Secretary.

Dr. Sibson (London) then proposed the re-election of Mr. T. Watkin Williams as general secretary of the Association.

Dr. M'Swiney seconded the motion, which was passed by acclamation.

Medical Benevolent Fund.

The Secretary next read the annual report of the Medical Benevolent Fund, which stated that during the past year the sum of £1035 had been distributed in grants for the relief of temporary distress, the largest amount hitherto given in any single year, the number of cases relieved being 100. Thirty annuitants were now maintained by the permanent investments.

The report was adopted.

The Association then adjourned to the new building in the College, where the remainder of the business for the day was proceeded with.

Some slight changes in the by-laws were agreed to, on the motion of the Secretary, seconded by Dr. Henry.

Rev. Mr. Bell, M.D. (Goole), made some objections to the changes made in the size of the *British Medical Journal*, and moved that it was inexpedient to make such extensive changes as had been made without the consent of the members of the Association assembled at their annual meeting.

Dr. Seaton (London) seconded the motion, which was put from the chair, and negatived by a large majority.

The Rev. Mr. Bell, according to notice, asked why the subscriptions of members were paid to the Secretary instead of to the Treasurer of the Association.

The Secretary replied that there was a large amount of trouble involved in the collection of subscriptions, and he thought it would be unfair to put such labour upon the treasurer, who was an honorary officer.

Rev. Mr. Bell said that, under the circumstances, he would not, as he had intended, move any resolution on the subject.

Sir Dominic Corrigan then moved that Christopher C. Cox, of Baltimore, formerly Surgeon in the American army, and delegate from America to the Association last year, and Professor Polli, of Milan, honorary Member of the King's and Queen's College of Physicians, be elected honorary Fellows of the British Medical Association.

Dr. Sibson (London) seconded the motion, which was passed by acclamation.

In the evening a large number of members were entertained at dinner by the Board of Trinity College, and at a later hour the Association at large was received at a brilliant *conversazione* given by the Dublin Obstetrical Society, in the Rotunda Rooms adjoining the great Lying-in Hospital.

On Wednesday morning the public breakfast took place in the Exhibition Building, Earlsfort-terrace, the guests assembling previously in the Victoria Cross Gallery. At 9.30, the Committee on the Observation and Registration of Disease met in the New Museum Buildings, Trinity College; at 10, the new General Council met in the same place; and at 10.45 the Second General Meeting of the Association was held in the Examination Hall. Oxford was selected as the place of meeting for 1868, under the presidency of Dr. Acland, after which the Address in Medicine was delivered by Sir Dominic Corrigan. The subjects chiefly dwelt on by the learned Baronet, in his able and valuable discourse, were the preliminary and Professional education of the Practitioner. The details of these important proceedings I must reserve for my next letter.

INTERNATIONAL CONGRESS OF THE SOCIETY FOR THE PROTECTION OF ANIMALS.

The Société Protectrice des Animaux has held a Congress in the Assembly Rooms of the Society of Acclimatation, 19, Rue de Lille, Paris. The Congress, convened by the Paris Society, was on this occasion international, and delegates were present from nine different Continental societies. England was also represented, the Royal Society for the Prevention of Cruelty to Animals sending six delegates—viz., Samuel Gurney, Esq., M.P.; Professor Varnell; the Rev. Prebendary Jackson, M.A.; Dr. Donald Fraser; Dr. Richardson, F.R.S.; and Adam Smith, Esq. Bath and Bristol were represented by the Rev. D. Cooper and Dr. Tunstall. The Congress was opened on Thursday morning, August 1, a preliminary meeting having been held on the previous evening to arrange the order of proceeding. Lord Harrowby was unanimously elected President, and had signified his intention to be present, but was prevented by Parliamentary duties. The Vice-Presidents were M. Guerin Méneville, Paris; Baron d'Ehrenstein, Dresden; Dr. Fraser, London; Lieutenant-Colonel Mussard, St. Petersburg; and Signor L. di Brolo, Palermo. The first business of the Congress was to receive the report of each of the delegates of the different countries. The reports gave evidence of great progress and activity on the part of those who have the dumb creation under their special protection. Some of these reports were from societies of recent standing, but were none the less vigorous. The report of the English society, announcing,

among other matters, the munificent donation of £5000 by Mr. George Wood, of Chelsea, a member of the society, was received with loud acclamation.

The reports read, the members of the Congress proceeded to the discussion of special questions. They first considered the question: What ameliorations may be made in the mode of transporting animals by railway? On this point the members spoke strongly against the common means of transport now in use, and an improved truck, invented by Mr. Reid, of Edinburgh, was specially commended. The next question was: What are the best means of slaughtering animals? A committee was appointed to report on this subject, and Professor Varnell, who had visited the Parisian abattoirs, added a very valuable short paper. The pole-axe *versus* division of the spinal cord was the point under debate, the English pole-axe in the end gaining the approval of the members. It was unanimously recommended that men should be specially trained in the use of the axe. The general arrangements of the Parisian abattoir were much praised by Professor Varnell, who showed that from the French, in this regard, the English had much to learn. The third question, What are the best means of harnessing oxen? led to a desultory discussion without materially advancing the position, opinion being divided between the merits of the collar yoke and the head yoke.

The fourth question—What are the best means for ameliorating the conditions of horses employed in drawing cabs, coaches, omnibuses, and the like?—called forth another admirable report from Professor Varnell. The Professor strongly urged the necessity for examination of horses by a Veterinary Surgeon previous to their employment, with subsequent periodical inspection.

In addition to these discussions, which were carried on in the order we have noted, certain other subjects were brought under consideration.

On Saturday, Dr. Richardson gave an address on the application of local anæsthesia for operations on animals. The experiments performed by the author in illustration of his argument, on the arms of M. le Croix, Dr. Fraser, and himself, created the greatest interest, and the statement that every justifiable operation on the horse could now be made painless by the local process was warmly received. After the reports of the societies had been read, an address to the King of Portugal, thanking him for having abolished bullfights in his kingdom, was prepared and signed by the delegates.

A magnificent banquet at the Trois Frères Provençaux, in the Palais Royal, closed the formal proceedings, but a supplementary sitting was held on Monday to consider points having reference to the prevention of the destruction of birds, the best means for the further propagation of the principles of the Congress, and the measures to be adopted to save the sufferings of animals wounded in war.

The next International Congress of this character is to be held in Zurich in the year 1869.

REVIEWS.

Osservazioni Microscopiche e Deduzioni Patologiche sul Colera Asiatico. Memoria del Dr. Filippo Pacini. Firenze. 1854.

Microscopical Observations as a Guide to Pathology in Asiatic Cholera. By Dr. Filippo Pacini. Florence. 1854. Pp. 22.

Sulla Causa Specifica del Colera Asiatico, il suo Processo Patologico e l' Indicazione che ne resulta. Idem. 1865.

On the Specific Cause of Asiatic Cholera, its Pathology and Rationale of Treatment. Idem. 1865. Pp. 62.

(*From a Correspondent.*)

If the question were put to us, What is the very best thing in Medicine? we should answer, To be well placed. And where but in Germany? Education at the State's expense, *doctor philosophiæ*, flattering support of the Faculties and men of one's year, a professorship, emancipation from the carking cares of home and tearing anxieties of practice, appliances at hand or within reach for the most partial and recondite research, a class-room full of deferences—nay, a platform for one's political ideas, with a total independence of the trammels of fashion or the severe obligations of birth. Such conveniences constitute a form of existence which makes Germany seem better than other lands in the eyes of all who incline to the paths of science, with a distaste for the rough side of life, though that may be more suggestive, in the end, of broad and useful truths and more fertile in original ideas. Many, indeed, view with envy a field of action where the most jogtrot progress leads to European distinction. To have the privilege of directing thought in the most intellectual country in the world is surely a rich reward. This barbs the wing of thought, and provokes to the very height and utmost stretch of human endeavour. But, alas! the necessity of shining makes Germany too little particular whose oil she puts into her too capacious lamp. Not seldom resplendent with a lustre not her own, she owes it to materials industriously culled, and without acknowledgment, from despised Welschland. *Sic vos non vobis mellificatis apes.* As microscopist, physiologist, and in anatomy, Pacini has probably done as much or more than any German, but in Florence he is ill-placed, dislocated, and incoherent. The conquests of science now are for big battalions. The most delicious *soprano* no longer engages our ear; we love the roystering chorus and grating part-songs. Many years since Pacini substantially anticipated all that we have recently heard noised about of cryptogamia in the intestines of the choleraic. He detected these fungi and measured them. Yet he finds himself—shall we say?—eclipsed at Erlangen, and at Vienna, and again at Cologne. Robbed as in a wood we would not say, but might not Schiller's Karl have included this too in his list of malpractices? The names of Klob, Thomé, and Thiersch have become pleasingly familiar to our ears, but the expostulation of an Italian does not pass the mountains. The Germans now pick up all the threads of observation, to reel them off and mark them with their brand. So strong a combination must be scattered, and their pretensions passed through the slow alembic of time, before any portion of justice will be done to the genuine talent of Italy.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, August 5.

An impartial observer is obliged to confess that American Surgical industry is not adequately represented in the Paris Exhibition; and such is the opinion not only of European Medical visitors, but also of several well-informed gentlemen from the United States, who freely express their views on the subject. Of course, this reflection does not apply to the American military ambulance system, of which we lately gave a full description in the *Medical Times and Gazette*. But, as regards the remainder of the American Surgical exhibition, the articles laid before the public are comparatively few in number, and cannot always be pronounced to be first-rate in point of merit, besides which, being divided into two distinct agglomerations—one in the park, the other within the building—they do not make as good a figure as might have been expected.

Several ingenious inventions, however, deserve to be mentioned with praise; and, as might naturally be expected, some of the national peculiarities peep out even in the construction of Surgical instruments, and in the practice of the healing art.

Artificial limbs, by several makers, form a considerable part of the entire display. Of these, the most ingenious, in our opinion, are manufactured by Dr. Hudson, of New York. I particularly noticed his artificial feet for limbs shortened by hip disease, and for amputations of the ankle-joint by Mr. Syme's method. From the illustrations adduced it seems that patients accommodated with this apparatus can walk without experiencing the slightest inconvenience or pain—a result seldom attained even by the best makers. Dr. Hudson has adopted as a specialty the replacing of mutilated limbs by mechanical appliances, and, being a thoroughly qualified Surgeon himself, will no doubt be able to render great services in his peculiar line.

Ingenious contrivances for the same purpose are exhibited by Messrs. Selpho, Weston, Marks, and other American makers; but, on the whole, it must be allowed that, in this branch of art, the old countries retain a decided superiority.

A very simple and convenient extension apparatus, for fractures of the thigh, is exhibited by Dr. Gordon Buck, Surgeon to the New York Hospital. It mainly consists in the adaptation of a weight, acting by means of a pulley, to the lower extremity of the fractured limb, to which it is fixed by bands of adhesive plaster. The patient being placed in a horizontal position, counter-extension is obtained by a perineal band; this, however, may frequently be dispensed with, the

weight of the body being sufficient to resist the extending force. The advantages of this method are its great simplicity of arrangement, its facility of management, and the comfort it affords the patient during a long confinement in bed. The efficiency with which uninterrupted extension of the limb can be safely kept up, secures, according to the inventor, better results than have been obtained by any other method.

A case of instruments, made by G. Tiemann and Co., shows some of the most recent improvements in American Surgical mechanics, among which we particularly noticed Emmett's new three-bladed speculum, Sand's needle forceps, and several instruments for operations on the eye. We shall not, of course, attempt to give a description of these; the absence of figures would prevent us from rendering it sufficiently intelligible. We would, however, recommend to the attention of military Surgeons the regimental case of instruments supplied to the Medical staff in the United States Army; it appears to have been more liberally furnished with instruments than any of the models in use in European countries.

Sanitary supplies of every kind are also exhibited by the United States Sanitary Commission—beds, blankets, sheets, cushions, linen, etc., etc. I was not particularly struck with any peculiar excellence in these articles; but the preserved articles of food appear, in some respects, to be the best which have been hitherto prepared. The beef stock is stated, by American authorities, to be highly preferable for making broth to Baron Liebig's celebrated *Extractum Carnis;* of course, I do not feel competent to express an opinion on that point. I was particularly struck by the condensed milk and desiccated eggs, which, I was positively assured, would keep perfectly sweet for any length of time, and be always ready for use. Of course, we get condensed milk and other extracts in Europe; but they are far from retaining the flavour of the real article.

Hospital models from various places are largely displayed both in the park and within the building; but the general principles agree with those adopted at the Chestnut-hill Hospital, which I have already described. Some of these buildings are disposed so as to form a square; others are circular; some are three-cornered, like that at Baltimore; but their chief features as regards internal arrangements are, in all essential particulars, very nearly the same.

Among what I may be perhaps allowed to style the eccentricities of the American exhibition are the instruments invented by the ingenious Mr. Bates for the cure of stammering. We are informed that, following the example of Demosthenes, who got rid of that defect by putting stones into his mouth, the inventor causes small bits of gold and silver to be inserted between the teeth, and thereby restores the organs of speech to their normal condition.

Three kinds of stammering, and three only, are recognised in the classification of Mr. Bates. The first corresponds to the lingual letters, and produces the sound *tit, tit, tit.* The second belongs to the labial consonants, and is represented by *pip, pip, pip.* The third takes place in the throat, and is expressed by *gog, gog, gog.*

For each of these Mr. Bates has invented a special instrument. *Tit,* he says, is readily cured by inserting a little plate of gold, perforated at its centre, between the two front teeth. *Pip* is overcome by inserting into the mouth a silver disc, connected with a long tube, which projects from the lips like a funnel, and is disguised by means of a quill; the wearer thus appears to have a tooth-pick in permanent employment; "an excellent habit," says Mr. Bates, "and one which ought to be universally adopted in polite society." Is there not something quite Transatlantic in this delightful suggestion?

As to *gog,* it is easily cured by compressing the throat with a narrow cravat, with a plate in front, which is pressed down by a screw. By submitting to this permanent process of strangulation, the wearer is perfectly sure to become a fluent speaker, and may, for aught I know, cut a figure in Congress.

Testimonials of every kind are not wanting to corroborate the success of the invention. We certainly do not desire to judge without trial; but as everybody knows that all kinds of treatment have succeeded in the cure of stammering, and that all kinds of treatment have failed, we may, perhaps, be excused for indulging in a slight degree of scepticism as regards the infallibility of Mr. Bates's system.

If Dental Surgery holds a prominent place in the British Medical Exhibition, it seems to preponderate altogether in the American section. Mineral teeth, dental prothesis, and anæsthetic apparatus employed in Dental Surgery, meet the eye at every turn; and it is quite natural that this should be so. The talent of American dentists has always been universally acknowledged, and the best practitioners in that line which we possess in this city had their education in the United States.

Dr. Colton, of New York, exhibits an apparatus for the inhalation of nitrous oxide gas, which he claims to have first successfully introduced into practice. A vast number of signatures attest the beneficial results of this mode of inducing anæsthesia. With us in Europe the properties of this agent are still viewed with a certain degree of distrust, and chloroform, when properly administered, is so convenient that it will be found difficult to dispossess it of the predominance it has acquired both in Surgical and dental practice. Besides, Dr. Colton's apparatus, which consists of a series of glass vessels, is heavy, unwieldy, and apt to break—a great drawback to its universal adoption in this country.

Porcelain teeth, with india-rubber bases, are exhibited by Mr. Clark, and make a very creditable appearance.

But the most perfect system of artificial teeth which I have seen in the Exhibition is that invented by Dr. Allen, of New York. In the construction of dentines upon this plan, single teeth are arranged and soldered to the plate, after which silicious compounds, made to represent the gums, roof, and other parts of the mouth, are applied in a plastic state, and then fused by means of a strong furnace heat.

The results obtained in this manner appear as perfect as possible. We were, however, both astonished and amused to behold, in the glass case which contains these objects, a set of teeth with the inscription, "These teeth have been worn by Dr. W. Allen." Subjoined to this is a portrait of the Doctor, with and without his artificial embellishments. O Columbia!

It would be unfair to close this notice on Dental Surgery without naming Dr. Preterre, the celebrated American dentist of Paris, whose ingenious inventions for filling gaps in the mouth caused by wounds or Surgical operations deserve the highest praise.

GENERAL CORRESPONDENCE.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

LETTER FROM DR. JOSEPH ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I should feel obliged if you would allow me through your columns to inform my provincial Poor-law Medical brethren that during the last week Sir John Simeon, at my request, as President of this Association, moved for a copy of a letter addressed by the Poor-law Board to every union and parish in England and Wales, dated April 12, 1865, headed "Supply of Cod-liver Oil and Expensive Medicines," and a return from each union and parish, excluding the metropolis, in which the recommendation contained in the said letter has been carried out, of those which have declined to attend to it, and of those from which no answer has been received.

I believe that very considerable modifications of the present system of Medical relief to the poor in the provinces must shortly take place, the necessary corollary of the Metropolitan Poor Act; and it struck us that it would be desirable to obtain the above return, as it would tend to show the spirit in which the recommendation above referred to had been received, and also how far non-compliance therewith might be considered to necessitate further legislative action in the ensuing Session of Parliament.

One other point it is desirable to allude to. At the annual meeting of the Metropolitan Poor-law Medical Officers' Association held last week, it was resolved to admit a new class of members, to be called Associates, consisting exclusively of country Poor-law Medical officers. This was done with the view of affording our isolated provincial brethren a ready means whereby they might obtain counsel, assistance, etc., in any difficulty arising in the performance of their duty. This was suggested by the fact that frequent applications have been made of late from various parts of the kingdom either to me or to the Honorary Secretary, Dr. Dudfield. It was further resolved that the subscription for such associates should be 5s. annually.

I am, &c.

Dean-street, Soho. JOSEPH ROGERS.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Library will be closed from Monday, August 19, to Saturday, September 14, both days inclusive.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Special Meeting, June 18, 1867.

Mr. Solly, President, in the Chair.

THE REPORT OF THE SCIENTIFIC COMMITTEE APPOINTED TO INVESTIGATE THE PHYSIOLOGICAL AND THERAPEUTICAL EFFECTS OF THE HYPODERMIC METHOD OF INJECTION.

Without objecting to the word hypodermic, the Committee resolved to employ the term subcutaneous in their report. The conclusions have been drawn from experiments on animals and on man in health and disease; from personal evidence of experienced Medical men given before the Committee; from records of facts and other communications in answer to a series of questions drawn up by the Committee. The subject entrusted to the Committee was the physiological and therapeutical effects of this method. I. *Physiological Division:* The first experiments were made to determine the quantity of water that can be injected under the skin. It was found that the quantity varies directly as the yielding and elastic quality of the skin at the locality injected. Watery solutions of drugs were used for injection, and it was found that neutral solutions, as a rule, were tolerated, but that very acid and very alkaline solutions were apt to cause irritation. Experiments were made for the purpose of comparing absorption by skin and vein, and it was found that a drug injected subcutaneously was far less rapidly absorbed and less intense in its effects than when it was introduced into a vein. In the numerous experiments made by the Committee no symptoms have arisen which would lead them to conclude that the drugs subcutaneously injected had been thrown into a vein. The pain of injection was found to depend to some extent on the density of the skin; the less the resistance presented to the needle, the less the pain experienced on puncture. The Committee directed their attention to the effects of this method of administering various drugs, as compared with those methods in general use—viz., the mouth and the rectum—and the special points examined were, the relative rapidity of absorption, the intensity and the duration of the effects following each method of administration. The following alkaloids were used:—Aconitine, atropine, morphine, strychnine, and quinine. Experiments were also made with Calabar bean, conia, hydrocyanic acid, iodide of potassium, podophyllin, colocynth, aloes, and Battley's solution of opium. In the experiments with aconitine on animals the local action of the drug was exhibited in different ways, though the general type of symptoms was the same by the three methods—by the mouth the drug affected the salivary glands, by the rectum it irritated the gut, by the skin it gave rise to local pain. The smallest dose found to produce death in rabbits was—by the mouth, $\frac{1}{60}$th gr.; by the rectum, $\frac{1}{60}$th gr.; by the skin, $\frac{1}{300}$th gr. With atropine it was found that there was a stage of excitement which followed the subcutaneous injection of the drug, and was a remarkable feature of this method. Tables of the effects of this drug on man were given, and it was found that $\frac{1}{120}$th of a grain subcutaneously was sufficient to accelerate the pulse considerably. The comparative effects of morphine by the three methods were then described; the train of symptoms was found to be closely similar. A table of the effects on rabbits and on man was given in a concise form, showing that the effects of the drug injected under the skin were more rapidly manifested and more intense than by the other methods. Some interesting results were obtained from the experiments made with quinine on man. When the drug was injected into the cellular tissue, considerable elevation of the temperature was observed, this symptom being slight or inappreciable when the drug was taken (in the same quantity) by the mouth or by the rectum. Series of experiments were made in a similar manner with Calabar bean, conia, strychnine, and hydrocyanic acid, and the results obtained were tabulated in a convenient form. Experiments were also made with iodide of potassium on a healthy man who had congenital extroversion of the bladder; the drug produced some local irritation, which prevented the completion of the series. A solution of podophyllin injected under the skin was found to give rise to free diuresis — a symptom which was characteristic of this method of administering the drug. Experiments were also made with solutions of colocynth and aloes, but considerable irritation followed their use. II. *Therapeutical Division:* The Committee were limited in the number of drugs that could be used, from the locally irritating properties which some valuable medicines possess. Although many experiments were performed to test the value of local injections, the Committee failed to obtain any evidence to show that the local predominate over the general effects. Investigations were then made of the therapeutical value of this method of administering various drugs. Aconitine was found to give rise to so much local tingling that the drug was considered unfit for subcutaneous injection. In cases of simple neuralgia, atropine was considered to have a very beneficial effect when thus given, and in some cases more permanent relief was found to follow its injection than that of morphine. The Committee believed that the value of morphine was materially enhanced by this method, as the action of the drug is not only secured with greater intensity and rapidity than by the ordinary modes, but the duration of its effects is prolonged. The same advantages characterise this mode of giving quinine in intermittent fevers, but some caution is requisite in giving large doses of this drug, as irritation may arise from its presence under the skin. The conclusions which the Committee deduced from their investigations were—1. That, as a general rule, only clear neutral solutions of drugs should be injected, for such solutions rarely produce local irritation. 2. That, whether drugs be injected under the skin, or administered by the mouth or rectum, their chief physiological and therapeutical effects are the same in kind, though varying in degree. 3. But that symptoms are observed to follow the subcutaneous injection of some drugs which are absent when they are administered by the other methods, and, on the other hand, certain unpleasant symptoms which are apt to follow the introduction of the drugs by the mouth and rectum are not usually experienced when such drugs are injected under the skin. 4. That, as a general rule, to which, however, there may be exceptions, clear neutral solutions of drugs introduced subcutaneously are more rapidly absorbed and more intense in their effects than when introduced by the rectum or the mouth. 5. That no difference has been observed in the effects of a drug subcutaneously injected, whether it be introduced near to, or at a distance from, the part affected. 6. That the advantages to be derived from this method of introducing drugs are—(*a*) rapidity of action; (*b*) intensity of effect; (*c*) economy of material; (*d*) certainty of action; (*e*) facility of introduction in certain cases; (*f*) with some drugs the avoidance of unpleasant symptoms. This plan, therefore, is most likely to be adopted where very rapid and decided effects are required from drugs which are operative in small doses.

The President regretted that experiments as to the effects of tartar emetic introduced subcutaneously had not been included, as it was often of great importance to excite vomiting when the patient was unable to swallow.

Dr. C. J. B. Williams considered that it was desirable that some of the Committee should add to the report supplementary matters not considered essential to it, especially as the subject had been so long under consideration. He had done so when asphyxia had been considered.

Mr. Savory would be glad to do so, but Dr. R. Thompson was the best man to whom to apply. The part of the paper not read referred chiefly to details. Tartar emetic had not been overlooked by the Committee, but he would refer to Dr. Thompson on the matter.

Dr. J. Harley, speaking of conclusion No. 3, that symptoms were observed when the drug was introduced under the skin, which were not seen when it was given by the mouth, corroborated the statement, from the results of his own experience, only with regard to atropia. When given by the stomach, it does not accelerate the pulse; when introduced subcutaneously, it does. With regard to quantity, again, he did not quite understand why the dose should be one-sixtieth of a grain for a woman and one-fiftieth for a man.

Mr. C. Hunter said that the result of the inquiry had confirmed his own opinions as to the value of this mode of introducing remedies into the system. He considered, however, that the term hypodermic was better than subcutaneous, and objected to the word skin when cellular tissue was meant, as it might lead to mistakes. He was pleased with the site selected, but there was another good one—the outside of the trochanter. The therapeutical conclusions were disappointing; they had not gone far enough, and did not deal with the distinguishing features which are observed after the subcu-

taneous introduction of almost every drug. Morphia, for instance, produces irritation by the side of the nose, and gives rise to a warm glow beginning with the feet. The bowels are not confined, and the appetite is usually increased. Atropia in several persons produces a rose-red rash; it also gives rise to a glow, and the pulse is quickened. Strychnia, again, acts more rapidly on paralysed limbs when given by the skin than by the mouth. The dose also does not require to be materially increased when the drug is introduced subcutaneously.

Mr. C. Moore spoke of the local effects produced by the introduction of drugs below the skin. A large dose always gave rise to suppuration; even fifteen minims in one case produced this. He thought that three, five, or six minims was the best quantity. The local action of drugs for local effects had been overlooked—as, for instance, the effects of iron, potash, and acetic acid. In one case, half a grain of morphia introduced beneath the skin had proved fatal—the patient's urine was albuminous. Morphia had a powerful effect on chloroform sickness, putting it off for some time—until night, for instance, if the operation be performed in the middle of the day.

Dr. C. J. B. Williams confirmed Mr. Moore as to the fatal effects of morphia when given to a patient having albuminous urine; in one case one-third of a grain proved fatal. The injection of morphia was of peculiar value; it was like giving a new instrument to the Profession. The complete effect was wonderful, it being tantamount to introducing a substance into the blood. In inflammatory toothache, a little morphia injected at the angle of the jaw completely relieved the pain. In the inflammation of membranes, again, the pleura, the peritoneum, and in rheumatism, the injection of morphia was likely to do much good. So also might the injection of purgatives in ileus or obstruction of the bowels.

Mr. Savory, in reply, stated that the report only dealt with a small fragment of the subject; and the difficulty of the case was shown by the way Dr. J. Harley and Mr. Hunter contradicted each other. Mr. Hunter was, however, quite in error in supposing that the effects of remedies introduced subcutaneously had not been long known—they had really been understood for many years.

NEW BOOKS, WITH SHORT CRITIQUES.

Mental Pathology and Therapeutics. By W. Griesinger, M.D., Professor of Clinical Medicine and Mental Science in the University of Berlin. Translated from the German of the second edition by C. L. Robertson, M.D., Medical Superintendent of the Sussex Lunatic Asylum, and J. Rutherford, M.D. London: New Sydenham Society. Pp. 530.

*** Well known in this country, Griesinger is still more so on the Continent, where he is looked upon as one of the best alienists living. His experience has been unusually large, and his observations are eminently practical. Altogether we expect that this book will prove one of the most successful of those issued by the Society.

On the Gular Pouch of the Male Bustard (*Otis tarda*, Linn.). By William Cullen, M.D. Pamphlet. Reprint.

*** The existence of such an organ has been disputed. Dr. Cullen places its presence beyond a doubt; he also figures the curious structure, but has not succeeded in ascertaining its functions.

Remarks on the Nature of Energy. By Charles Brooke, M.A., F.R.S., etc.

*** This is a short and succinct account of what has been done in studying the nature of force, with all the recent discoveries in this department. It constitutes the introductory chapter of the last edition of Golding Bird and Brooke's "Natural Philosophy."

On the Repressive Measures adopted in Paris, compared with the Uncontrolled Prostitution of London and New York. By A. Vintras, M.D., Physician to the French Dispensary. London: Hardwicke. Pp. 86.

*** Dr. Vintras, dealing with this unsavoury subject, strongly recommends repressive measures. We have no objections; only let us begin by introducing the thin end of the wedge, and extend the provisions of the Contagious Diseases Prevention Act to other than a few seaport towns and garrisons. Other changes will follow. It is useless to talk of a complete revolution of the way in which these things are looked at in this country.

Question de Priorité—Propriétés Désinfectantes des Permanganates Alcalins. Par Henry Bollman Condy. Paris: Baillière.

Question as to Priority—The Disinfecting Properties of the Alkaline Permanganates. By H. B. Condy. Pp. 48.

*** To claim the priority of an invention which was most certainly his due, was perfectly right and proper on the part of Mr. Condy—the ignorance of Demarquay and others as to his labours being readily accounted for by the deficient knowledge of English literature too often displayed save by a select number of Frenchmen. But he should have stopped there. The addition of a number of commendatory extracts of all kinds and characters, descriptions of experiments to be tried, and so on, savour more of the shop than of the man of science justly tenacious of his rights.

Giornale di Elettro-Terapia. Compilato dal Dr. Giuliano Manca. Firenze. Journal of Electro-Therapeutics. Compiled by Dr. Julian Manca. Florence.

*** Our readers would hardly suppose that the contents of the above work consist of nothing beyond the introductory lecture to a course of electro-therapeutics, delivered by Dr. Manca. A summary of the second lecture is also given. The whole is termed a journal, and is to be published quarterly.

Du Laryngoscope, et de son Emploi dans les Maladies de la Gorge. Par Morell Mackenzie, M.D., M.R.C.P. Traduit de l'anglais sur la seconde édition par le Docteur Emile Nicolas. Paris: Baillière.

The Laryngoscope, and its Use in Maladies of the Throat. By Morell Mackenzie, M.D., etc. Translated from the English of the Second Edition by Dr. Emile Nicolas. Pp. 196.

*** The well-known excellence of Dr. Mackenzie's works on the Laryngoscope has been recognised before this time, and its translation into French shows that it is appreciated by our neighbours, who have so greatly distinguished themselves in similar studies. One observation Dr. Nicolas makes in his introduction is, we think, worthy of attention. "Although," says he, "laryngoscopy demands a special study, *it does not constitute a speciality*; it is an additional method of examination offered to the Physician."

De la Laryngite Chronique étudiée à l'aide du Laryngoscope. Par le Dr. E. Nicolas. Marseille: Vial.

On Chronic Laryngitis studied by the Laryngoscope. By Dr. E. Nicolas. Pp. 16.

*** Several cases of simple inflammatory affection of the larynx, carefully studied, showing the mode in which the laryngoscope may be best used for the benefit of the patient. Some observations on lighting and the local application of remedies are added.

Ophthalmiatrische Beobachtungen. Von Dr. Albert Mooren, dirigirendem Arzt der Augen Klinik zu Düsseldorf. Berlin: Hirschwald.

Ophthalmiatric Researches. By Dr. A. Mooren, Director of the Ophthalmic Clinic at Dusseldorf. Pp. 345.

*** The result of ten years' clinical experience, carefully arranged under each separate disease treated; amounting, in fact, to a regular treatise on ophthalmology.

Rapido Cenno sulla Clinica Oftalmica della Regia Università di Napoli.

Rapid Glance at the Ophthalmic Clinic in the Royal University of Naples. Reprint from the "Riforma Clinica." Pp. 23.

*** In this short paper M. R. Petrilli gives a sketch of some of the more important cases treated by Professor Castiani during the session 1866-67. Among others are mentioned a new operation for cataract, operation for and cure of staphyloma, operation for and cure of pterygium, etc., all showing that ophthalmic science is not neglected in the south of Italy.

MEDICAL NEWS.

University Intelligence.—University of London.—The following is a list of the Candidates who passed the recent First M.B. Examination:—

First M.B. Examination.—Entire.

Pass Examination.

First Division.—William Field Flowers, Guy's Hospital; William Richard Gowers, University College; Frederick Pollard, St. Thomas's Hospital; Edwin Rayner, B.A., University College; Richard Lawton Roberts, University College; John Davies Thomas, University College.

Second Division.—Albert Henry Baines, Guy's Hospital; Evan Buchanan Baxter, King's College; John Gordon Black, College of Medicine, Newcastle-on-Tyne; Ethelrid Desé, University College; Clement Dukes, St. Thomas's Hospital; Francis de Havilland Hall, St. Bartholomew's Hospital; Charles Edward Hoar, King's College; Arthur Fergusson McGill, King's College; William Price, University College; Richard Samuel, St. Bartholomew's Hospital; Herbert Lumley Snow, University College and Queen's College, Birmingham.

Excluding Physiology.

First Division.—James Reginald Stocker, Guy's Hospital.

Second Division.—Edward Colson, Guy's Hospital; Charles Henry Joubert de la Ferté, St. Mary's Hospital; William Joseph Scott, University College; Charles Tanfield Vachell, King's College.

Physiology only.

First Division.—Charles Taylor Aveling, St. Thomas's Hospital; Adam Payton Hurlstone, University College; Isaac Burney Yeo, King's College.

University of Edinburgh.—Graduation in Medicine.—The following is a list of the gentlemen who have this year received Degrees in Medicine. [Those whose names are printed in small capitals passed their examinations with honours. *** Those who have obtained prizes for their dissertations. ** Those deemed worthy of competing for the dissertation prizes. * Those commended for their dissertations]:—

Candidates who received the Degree of Doctor of Medicine under the New Statutes.

John Barclay Clark, Scotland, M.B. and C.M. 1865, when he gave in a Thesis on the Reproduction of Limbs of the Crustacea. Thomas Prince Fothergill, England, M.B. 1865, when he gave in a Thesis on Abscess of the Liver. Robert Kirk, Scotland, M.B. and C.M., with honours, 1865, when he gave in a Thesis on the Pathology and Treatment of Ovarian Dropsy. Samuel Mitchell, England, M.B. and C.M. 1865, when he gave in a Thesis on the Early Stages of Inflammation. John Murray Moore, England, M.B. and C.M., with honours, 1865, when he gave in a Thesis on Certain Diseases of the Pharynx, Larynx, and Trachea, with an Appendix on Tracheotomy.

Candidates who received the Degree of Doctor of Medicine under the Old Statutes, with the Titles of their Theses.

*Arthur Newland Austey, Australia: On Dislocation of the Hip and Shoulder. John Hougham Bell, Australia: On Conditions of the Air Passages requiring Surgical Operation. Daniel Robert Black, Scotland: On Fœticide and the Doctrine of "Quickening." *George Francis de la Cour, England: On Type of Disease. Luke Cradock, England: On the Blood and its Relations to the Liver and Kidneys. Frederick Dale, England: On some Varieties of Surgical Injury. Alexander Kidd Dyer, Scotland: On the Actions and Uses of Opium. Daniel Edward Hamilton, England: On Puerperal Convulsions and the Importance of Recognising Albuminuria previous to the Commencement of Labour. George William

Robertson Hay, Scotland: On the Hypodermic Method of Treating Disease. George Haliburton Hume, Scotland: On the Trichina Spiralis and Trichinosis. John Macdonald, India: On Pneumonia. *John Clark McNicol, Scotland: On the Therapeutic Value of Certain Drugs. **James Maule, Scotland: On the Absorbing Power of the Human Skin. James Mitchell, Scotland: On Tetanus. *Charles Henry Denny Robbs, England: On Uterine Hæmorrhage during Pregnancy. Arthur Strange, England: On Diet, including the Diet of the Insane. *William Taylor, Scotland: Contributions, Medical, Surgical, and Obstetrical. Joseph Todd, Ireland: On Scarlet Fever. **Morrison Watson, Scotland: On the Muscular Anatomy of the Posterior Limb in Aves.

On November, 1866, Franklin Gould, B.A. (London), Tasmania, who was prevented from being present at the graduation on August 1, 1866, received the Degree of M.D. under the Old Statutes, and the Gold Medal for his Thesis On the Thermometer in Disease.

Candidates who received the Degrees of Bachelor of Medicine and Master of Surgery.

James Affleck, Scotland; Charles James Allan, M.A. Aberd, Scotland; John Baddeley, India; James Thomson Wilson Baird, Scotland; Alkman Henryson Barham, England; Andrew David Barrie, India; Andreas George Hendrik Bosenberg, Cape of Good Hope; John Bruce, Ireland; Alexander Buncle, Scotland; Edgar Spry Byass, England; James Angus Cameron, Scotland; Charles Moss Campbell, India; Richard Caton, England; **Frederick Churchill, England (Thesis, On Incised Wounds); Henri Louis Colladon, M.A., Geneva; John Connel, M.A. St. And., Scotland; David Douglas Cunningham, Scotland; George Tuite Cox Dolman, England; William Augustus Fairweather, B.A., New Brunswick; William Alexander Finlay, Scotland; James Gairdner, Scotland; James Gordon, B.A., Scotland; David Griffiths, Wales; John Haddon, M.A., Scotland; Harry Douglas Hay, Scotland; Alexander Hewston, B.A., New Brunswick; Charles Holden, B.A., New Brunswick; James Houison, B.A., Australia; George Hunter, Scotland; John Kirkwood, Scotland; James Anderson Laing, Scotland; Robert Lightfoot, England; Robert Bruce Low, Scotland; Robert Lucas, Scotland; Alfred William Lupton, England; Robert Baillie Macbean, Scotland; Alexander Dall McDonald, Scotland; David McEwan, Scotland; William Paton Maclay, M.A., Scotland; John McRae, Scotland; Harrison Mitchell, England; Francis Walter Moinet, Scotland; John Murdoch, Ireland; John Stewart Muir, Scotland; Robert Munro, M.A., Scotland; ***Henry Alleyne Nicholson, D.Sc. Edin., England (Thesis, On the Geology of Cumberland and Westmoreland); John Wilson Paton, Scotland; Michael Welldon Rice, England; Christopher Curbie Ritchie, Scotland; Richard Howell Stevens, England; David Suttie, Scotland; Henry Sydney, England; Edmund Tatham, England; Robert Shand Turner, M.A., Scotland; Yildefonso Victor Wathington, Puerto Rico; James Call Weddell, Berwick-upon-Tweed; Joseph Llewelyn Williams, North Wales; Alexander Christy Wilson, Scotland; Henry Richard Wright, England; Strethill Henry Wright, Scotland; Peter Alexander Young, Australia.

Candidates who received the Degree of Bachelor of Medicine.

John Brown Buist, Scotland; Alexander Crombie, Scotland; James Dunsmore, Scotland; Geoffrey Hett, England; Alexander Lawrence, Scotland; Edward Lawrie, England; Philip Henry Mules, England.

University of Glasgow.—List of Degrees conferred by the University since May 16, 1867:—

Doctors of Medicine.

William Kay, M.B., Scotland; William McGill, Scotland; Frederic H. Quaife, M.A., Sydney, N.S.W.; James R. Wylie, M.B., C.M., Scotland.

Bachelors of Medicine.

John C. Brown, Scotland; John Eaton, Scotland; James Glen, Scotland; William R. Haydon, England; Thomas C. Hickey, Ireland; John Lyon, Scotland; James Macbeth, M.A., Scotland; Alex. Wm. Macfarlane, England; James C. Nash, Scotland; Hugh Russell, Scotland; William R. Speir, Scotland; Walter Sutherland, Scotland.

Masters in Surgery.

Robert Blair, M.D., Scotland; John C. Brown, Scotland; Donald Campbell, M.D., Scotland; John Eaton, Scotland; William Galloway, M.D., Scotland; James Glen, Scotland; William R. Haydon, England; William G. Laidlaw, M.B., Scotland; John Lyon, Scotland; James Macbeth, M.A., Scotland; Alexander W. Macfarlane, England; James C. Nash, Scotland; Frederic H. Quaife, M.A., Sydney, N.S.W.; Hugh Russell, Scotland; Alex. Welsh, M.D., Scotland.

The following Gentlemen were named as entitled to Honours, to Special Commendation, and to Commendation, on account of distinguished merit at the various Examinations for the Degrees:—

I.—Honours.

Frederic H. Quaife, M.A., M.D., C.M., Sydney, N.S.W.

II.—Special Commendation.

James Macbeth, M.A., M.B., C.M., Scotland.

III.—Commendation.

William R. Speir, M.B., Scotland; Alex. Wm. Macfarlane, M.B., C.M., England. James Glen, M.B., C.M., Scotland, received Commendation in the Final Examination.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their first Professional Examinations during the recent sittings of the Examiners:—

Robert Sime, Edinburgh; Ambrose Bodkin Kearney, County Galway; Donald Malcolm, Wick; Richard Ramsay Sage, Ross-shire; Robert Innes, Aberlour; Thomas Smith Thomson, Edinburgh; John William Norman, Carlisle; Robert Bentham, London; George Corry, Northampton; William French Morrison, Aberdeen; Alfred E. Dalgairns, Madras; W. A. Heudenson, Edinburgh; Alexander Thomson, Glasgow.

The following gentlemen passed their Final Examinations, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh:—

John William Bligh, Quebec; Alex. Anderson, Lake Superior; John Dewar, Glasgow; Henry Major Lawrence, County Londonderry; Richard Macmullen, County Dublin; Frederick Smith, London; Laurence John Macnamara, Dublin; Mati Lal Mitra, Calcutta; John Brooke Unwin, Lewes; Alexander Dall Macdonald, Dysart; James Davis Gunning, Stranorlar; James Berwick, St. Andrews; John Dennistoun Cunningham, Edinburgh; Alexander Kidd Dyer, Edinburgh; John Leonard, County Cork; Roderick Macdonald, Skye; Michael Burke, Galway; Jeremiah Vaughan, Broadford; William John Campbell, Poonagh; Douglas Donald Cameron Menzies, New Amsterdam; Frederick Emmet Beck, Belfast; John Jennings, Skibbereen; George Stanley Elliot, Exeter; William Dickson, Berwickshire; Robert Gray, Dundee; Marshall Hooper, Sevenoaks; Edward Jalcott Norman, New Orleans.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery at a meeting of the Board on August 1:—

Henry Melville Brewer, Newport, Monmouthshire, diploma of Membership dated May 24, 1864; Wm. Young Martin, Little Hulton, Lancashire, May 23, 1865; Rowland Evans Daniel, Lampeter, South Wales, April 24, 1867; Atmarám Sadáshiva Jayakar, L.R.C.P. Lond., Connaught-terrace, Hyde-park, July 25, 1867; Joseph Gerson da Cunha, Norfolk-terrace, Bayswater, July 25, 1867; Antonio Simplicio Gomes, Connaught-terrace, Hyde-park, July 25, 1867; Samuel Freeman Bagnall, L.R.C.P. Lond., Caroline-street, Bedford-square, July 23, 1867: William Alfred Cox, Mitcham, Surrey, May 8, 1866; and James Herbert Brown, L.S.A., Tewkesbury, Gloucestershire, May 7, 1862.

Royal College of Surgeons, Edinburgh.—The following gentlemen passed their first Professional Examinations during the recent sittings of the Examiners:—

Thomas Sommerville Smith, London; Charles William Shaw, Castlo Blayney; Edward Dowdall, Newry.

The following gentlemen passed their Final Examinations, and were admitted Licentiates of the College:—

James Dunsmure, Edinburgh; Thomas Canning Hickey, Galway; William Halliday Fraser, Canada West; Alexander Crombie, Fifeshire; Alexander Lawrence, Forfarshire; Alexander Crichton, Edinburgh; James Clarke Dunlop, Lisburne; Robert Gage Fleming, County Londonderry; Robert Macnair, Linlithgow; John Barry, Cork.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 1, 1867:—

Frederick Woolhouse, Sheffield; Alexander Oberlin McKellar, I, Clegg-street, Oldham; John Henry Hunter, 20, Bernard-street, Russell-square; Louis Charles Achille Carré, Guy's Hospital; Frederick Henry Waylen, 23, Haverstock-hill, N.W.; James Tennant, Oakley-street, Chelsea.

As an Assistant:—

Henry Thomas Harwood, Yeovil.

The following gentlemen also, on the same day, passed their First Examination:—

John Henry Gay, Guy's Hospital; William Crigeen Farakes, Guy's Hospital; John Thomas Jones, Guy's Hospital; Reginald Taylor, Guy's Hospital; Robert William Jones, St. Mary's Hospital; William Harris, St. Thomas's Hospital; George Birt, Birmingham General Hospital.

Appointments.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Burke, M., M.D., has been appointed Assistant-Surgeon to the Bradford Eye and Ear Hospital.

Orton, Charles, L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Assistant-Surgeon in the 3rd King's Own Stafford Militia.

Robinson, C. A., M.R.C.S., has been appointed House-Surgeon to the Hospital for Women, Soho-square.

Sewill, H., M.R.C.S., L.D.S., has been elected Dental Surgeon to the West London Hospital.

Births.

Coles.—On August 3, at No. 61, Hereford-road, Bayswater, the wife of W. C. Coles, M.D., Surgeon-Major, Bombay Army, of a daughter.

Grosvenor.—On July 29, at 1, Buckingham-terrace, Ladbroke grove-road, the wife of G. F. Grosvenor, M.D., of a son.

Middleton.—On July 31, at Greenwich Hospital, the wife of Dr. J. Middleton, R.N., of a daughter.

Smith.—On August 5, at 7, Delamere-street, Upper Westbourne-terrace, the wife of Dr. F. H. Smith, H.M. Bombay Army, of a daughter.

Strange.—On July 24, at The Avenue, Belsize-park, the wife of W. H. Strange, M.D., of a daughter, stillborn.

Turenne.—On July 31, at 2, Willowbank, Edinburgh, the wife of James G. Turenne, M.D., L.D.S., of a son.

Marriages.

Cronin–Kennaway.—On July 31, at St. James's Church, Piccadilly, E. F. Cronin, M.D., M.R.C.S., of Old Manor House, Clapham, to Emily Frances, second daughter of the late W. R. Kennaway, H.E.I.C., Judge of Futtehpore. No cards.

HARTILL—TILDESLEY.—On July 30, at St. Giles' parish church, Willenhall, Staffordshire, W. H. Hartill, M.R.C.S., to Louisa Elizabeth, eldest daughter of Mr. J. Tildesley, Summeryard House, Willenhall. No cards.

PINNIGER—CHESTERMAN.—On August 2, at St. Mary's Church, Little Brickhill, Bucks, by the Rev. Thomas Fym Williamson, M.A., vicar, assisted by the Rev. John Dent Fish, M.A., brother-in-law of the bride, curate of St. Sepulchre, Northampton, Broome Finniger, M.R.C.S., of Newbury, Berks, to Harriet Anne, second daughter of Shearman Chesterman, Esq., of Banbury, Oxfordshire.

ROBERTSON—JONES.—On August 7, at Moreton Pinkney, Northants, by the Rev. W. T. Browning, M.A., assisted by the Rev. Gordon Robertson, B.A., brother of the bridegroom, the Rev. W. H. Robertson, M.A., Minor Canon in Durham Cathedral, elder son of W. H. Robertson, Esq., M.D., J.P., of Buxton, to Frances Henrietta, younger daughter of the Rev. Francis Jones, M.A., incumbent of Moreton Pinkney.

WILLIS—MAULEVERER.—On July 31, at Trinity Church, Rathmines, County Dublin, R. N. Willis, M.B., to Margaret Geraldine, fourth daughter of the late Rev. R. Mauleverer, rector of Tipperary.

WOODHAMS—BANTON.—On July 31, at Bourne, J. A. Woodhams, M.R.C.S.E., of Rye, Sussex, to Elizabeth Ann, only child of E. Banton, Esq., Bourne, Lincolnshire.

DEATHS.

COTES, H., F.R.C.S.E., late of the Bombay Medical Service, at Mall House, Hammersmith, on July 20, aged 51.

CRIDGE, E. M., M.R.C.S.E., at Grafton, New South Wales, on May 2, aged 35.

DUNCAN, H. A., M.R.C.S., at 5, Seymour-place, Wandsworth-road, on August 3, in his 52nd year.

HOPE, J. S., M.D. Edin., at Melton Mowbray, Green Ponds, Tasmania, on May 21, in his 27th year

MACPHERSON, E. M., Staff Surgeon-Major in London, on August 4, in his 51st year.

OLIVER, W. H., M.R.C.S.E., at Chalfont St. Peter, Bucks, on July 31, aged 54.

TEPHENSON, J., M.D., at Manchester, on July 20.

SYKES, JOHN, M.R.C.S.E., at 73, Wicker, Sheffield, on August 3, aged 46.

VACANCIES.

LIVERPOOL NORTHERN HOSPITAL.—Resident Pupil.

SUNDERLAND INFIRMARY.—Two Resident Pupils.

ST. THOMAS'S HOSPITAL.—Dispenser and Assistant-Apothecary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Frome Union.—The Kilmersdon District is vacant; area 9624; population 3217; salary £70 per annum.

Hursley Union.—The office of Medical Officer for the Union is vacant; area 16,200; population 2550; salary £63 per annum for the District, £12 per annum for the Workhouse.

Machynlleth Union.—The Llanwrin District is vacant; population 1846; salary £36 per annum.

Thame Union.—Dr. J. Cogan has resigned the Waterperry District; area 2633; population 347; salary £15 per annum.

APPOINTMENTS.

Builth Union.—John Jones, M.R.C.S.E., L.S.A., to the Builth District.

Fylde Union.—Luke Fisher, M.D. St. Andrews, M.R.C.S. Eng., L.S.A., to the Lytham District.

Woodbridge Union.—Arthur C. Turner, L.R.C.P. Lond., M.R.C.S. Eng., to the First District.

APOTHECARIES' HALL OF IRELAND.—At a meeting of the General Council, held according to Act of Parliament on Thursday, August 1, the following were elected officers for the ensuing year:—Governor: Dr. Wyse. Deputy-Governor: Dr. Nolan. Directors and (with the foregoing) Members of the Court of Examiners: Thomas Collins, M.R.C.S.E.; J. A. Dirham, M.R.C.S.E.; Arthur Harvey, Esq.; Charles Holmes, M.D.; Charles H. Leet, M.D.; William Madden, M.D.; Robert Montgomery, M.R.C.S.E.; Robert Mulock, M.D.; Jerome O'Flaherty, L.R.C.S.I.; Edward J. O'Neill, M.D., L.R.C.S.I.; George B. Owens, M.D.; James Shaw, L.R.C.S.I.; John Shea, M.D. Representative on the General Medical Council, and Secretary: Dr. Leet. Examiners in Arts: George Atkinson, A.M., M.B. Dub.; and William D. Moore, A.B., M.D. Dub.

THE BOMBAY GENERAL HOSPITAL.—The Government has at last agreed to the plans for this Hospital, and the works will be commenced after the rainy season.

NEW MAGISTRATES.—At the Quarter Sessions held in the Town Hall, on Friday last, the following gentlemen, recently appointed by the Lord Chancellor as magistrates for the borough of Scarborough, were duly qualified and took their seats on the bench, viz: Dr. W. F. Rooke, J. F. Sharpin, Esq., and J. Kirby, Esq.

SURGERY IN HERCULANEUM.—At a recent meeting of the French Academy, M. Scoutetten read a paper on some curious Surgical instruments recently discovered among the ruins of Herculaneum. The most interesting of the specimens was a species of "sound," differing in few points from the instrument employed in modern Surgery.

CAUSE OF OSTEOMALACIA.—The cause of the softening of the bones in this disease is explained in a treatise just published by M. Drivon. The results of several analyses prove that in this affection lactic acid and lactates are largely present in the bones. These substances occasion the solution of the phosphates and carbonates, and the pathologic consequences characteristic of the disease naturally follow.

THE COLLEGE OF SCIENCE IN DUBLIN.—This new institution, the result of metamorphosis of the Museum of Irish Industry, is akin somewhat to our School of Mines in Jermyn-street. It is to be conducted under the management of a Dean of the Faculty, who is to receive an honorarium of £100 per annum. This office has been offered to Sir Robert Kane, and has been accepted by him.

THE PRESERVATION OF MEAT.—Of the numerous methods which have from time to time been suggested for the preservation of meat, that of Messrs. Medlock and Bailey, which has been recently published, appears the most simple and efficient. It consists in simply washing the meat to be preserved with a solution of bisulphite of lime and common salt in water. The Food Committee of the Society of Arts has already had the process referred to under its consideration, and, we believe, with favourable results.

REGENERATION OF LIMBS IN REPTILES.—The recent observations of M. Duméril are corroborated in a paper lately read at the Société Philomathique by M. Vulpian. M. Vulpian says that when by accident the digits of the young axolotls have been destroyed, they are frequently replaced by more than the normal number of extremities.

GALVANOCAUSTICS.—The work of Professor Middeldorpff, of Breslau, treating on galvanocaustics, a method of operation which has been introduced into Surgery by the author, has just been translated into the Russian language. Dr. Oscar Vrowalewski, the translator, has incorporated into the Russian edition many of Professor Middeldorpff's notes, which have increased the value of the book.

THE LATE PROFESSOR TROUSSEAU.—M. Lasègue has issued an appeal to the pupils and friends of this eminent man for funds for the purpose of placing a marble bust in the hall of meeting of the Academy of Medicine. M. Asselin, the Medical publisher, Place de l'Ecole de Médecine, will receive subscriptions, the list to be closed on December 1.

THE INTERNATIONAL MEDICAL CONGRESS. — The French journals state that about 600 names have been given in, 350 of these being those of foreigners, and that there is no doubt the numbers will rapidly increase. As to the memoirs, papers, etc., they have arrived in such excessive abundance that the first duty of the committees will be the delicate one of determining which of the innocents shall be massacred.

PASCAL THE DISCOVERER OF THE LAW OF GRAVITATION. —M. Chasles has laid before the Académie des Sciences two letters from Pascal to Robert Boyle, in which he states that the French philosopher lays down in formal terms the law of gravitation, hitherto universally supposed to be the discovery of Newton. Pascal died in 1662, and Newton did not make his great discovery until 1665.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JULY, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition(a)	Oxidisable Organic Matter.(b)	Hardness.	
				Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	18·67	0·75	0·82	12·5	4·0
West Middlesex	17·44	0·50	0·71	12·5	3·5
Southwark and Vauxhall.	18·16	0·42	0·71	12·5	4·0
Chelsea	17·80	0·59	0·71	13·0	4·0
Lambeth	17·51	0·72	0·30	12·5	3·5
Other Companies.					
Kent	28·49	0·50	0·42	15·5	7·5
New River	17·00	0·49	0·39	12·5	5·0
East London	17·83	0·49	0·46	12·5	5·0

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter

The amount of ammonia in the water, and of that derivable from organic nitrogen did not in any case exceed the 0·0094 of a grain per gallon of water, and there was no organic nitrogen or ammonia in the Kent water. It was therefore absolutely free from organic matter of an animal origin.

THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—We understand that this institution, which has ministered for many years to the sick poor of these two important parishes, is now to be divided, and that each parish is to have a Dispensary of its own. A house has been procured in Mount-street for the new St. George's Dispensary, and it is supposed that the present honorary officers to the joint institution will be elected to the respective branches after the separation.

THE MERCHANT SEAMAN'S GRIEVANCE.—On Thursday, the 1st inst., a meeting of merchant seamen was held in Liverpool, under the presidency of Mr. John Barrett, and the following resolutions were adopted:—"That this meeting is of opinion that the seafaring classes of Great Britain are now, and have long been, suffering under grievances and disadvantages detrimental to their interests and to the wellbeing of the mercantile marine of Great Britain." "That, with a view to properly representing those grievances and disadvantages, an humble petition be presented to Parliament, setting forth the grievances complained of, and praying for the amelioration of the same."

BACTERIA AND HOOPING-COUGH.—At the meeting of the French Academy on Monday, the 5th inst., M Guirette presented a note in which he described the results of a microscopic examination of the watery vapour exhaled by persons suffering from hooping-cough. He stated that in all cases where he had examined the vapour under the microscope, he found it to contain *bacteria* in immense numbers. The bodies he described as such were more or less fusiform, and measured about the two-hundredth of a millimetre in length and about the three-hundredth of a millimetre in breadth.

THE TRIALS OF MILITARY SURGEONS.—A recent number of the *Delhi Gazette* records an instance of almost unparalleled tyrany on the part of a commanding officer. The victim was the Surgeon of the regiment, and the officer was Colonel Crossman, of the 12th B.C. It appears that the native Medical officer was sent for, to see some member of Colonel Crossman's family who was unwell. This official, however, stated that he had received instructions from the English Surgeon, his superior officer, to make up no prescription during his absence. The result was that the Surgeon was immediately placed under arrest. The facts elicited by the recent "Jervis" inquiry render this statement by no means improbable. Commanding officers in India assume all the powers of petty princes, and display very imperial feelings towards their subordinates.

ACCIDENTS DURING THE LATE FESTIVITIES.—A sad accident occurred at Dover on July 23, by which three men of the 13th Brigade Royal Artillery were seriously injured while engaged in firing a salute in honour of the Sultan. In one case the right hand and fore arm were blown away, the humerus fractured, the trunk severely burned, and the chest contused. Amputation below the elbow joint was immediately necessary, and the patient has proceeded favourably. In another, the left arm below the elbow was blown away, the axilla was torn open, the axillary artery, vein, and nerves shattered, and the scapula fractured. Other severe injuries were sustained, and a hernia appeared in the right inguinal canal. In this case amputation at the shoulder-joint was performed, but the patient died on July 27, four days after the operation. In the third case, a severe laceration of the left thumb occurred, and the patient is doing well. These cases were treated, and the amputations performed, by Surgeon-Major Bone, of the Royal Artillery. We are happy to learn that the men of the Artillery at Gosport and Portsmouth who were injured during the late Naval Review are, on the whole, progressing favourably.

IMPURE WATER-PIPES.—The question of a constant water-supply has more aspects than those usually supposed, and has a more serious bearing upon health than is thought by those who look upon the continuous supply as a means of abolishing water-butts. So long as water-pipes are left during a certain number of hours in a nearly empty condition, so long will there be liability of infiltration by sewage. The pipes through which the water is conveyed become frequently injured, and allow the water to escape. Sewage-pipes likewise occasionally allow their contents to find their way into the surrounding soil. Now it is not unlikely that the same circumstance which injures one channel may affect the other. If in these cases there is the full pressure of the water in its conduit, there will be an escape of water, but there cannot be any serious contamination by sewage. If however, the pipe be empty, the sewage will enter it, and when the pressure is "put on," the water will drive the intruding sewage into the nearest cistern, and thus pollute the supply. That this is no hypothetical case is proved by the recent occurrence in Portland-street, where the Registrar-General states that analysis detected sewage contamination in the water drawn from the stand-pipe. "The sewage was equivalent to 1 per cent. of the water, which was turbid when drawn, and, after standing a few days, emitted an offensive odour and threw down flocculent matter."

CONGRESS OF ANTHROPOLOGISTS.—The Congress of the Archæologists and Anthropologists will take place this year in Paris, under the presidency of M. E. Lartet. The sittings will be held from the 17th to the 31st of this month, and the general management of the Congress will be under the control of the following council:—MM. d'Archiac, Desnoyers, Longpérier, Alfred Maury, de Quatrefages, Belgrand, Bertrand, Paul Broca, and Pruner Bey.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

N. F. Z.—The library and museum of the College of Surgeons will be closed during the ensuing month.

H. M., Llandudno.—There will be an Examination in Arts, etc., at the Hall, in September, on passing which you could enter on your Professional studies the following October.

Dr. Williams.—Sir George Baker, Bart., M.D., died in 1809, at the great age of 88. In her memoirs, Madame d'Arblay gives some account of him, and states he was "the only Physician his Majesty (George III.) will admit." There is a painting of him by Ozias Humphrey, R.A., in the College of Physicians.

"*Going Snacks.*"—The origin of this term is said to have occurred during the Plague, when the office of "searcher" was a very important one, and a noted body-searcher, whose name was Snacks, finding his business increase so fast that he could not compass it, offered to any person who should join him in his hazardous practice half the profits; thus those who joined him were said to go with Snacks. Hence "going snacks," or dividing the spoil.

CONCEALMENT OF BIRTH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you be kind enough to inform me at what stage of pregnancy the concealment of birth becomes criminal? Can the charge be maintained against a girl who conceals a fourth month fœtus? I have consulted our usual authorities without arriving at any sufficiently satisfactory answer to these questions, and therefore trouble you.

I am, &c. CUPIO SCIRE.

*** Is "Cupio Scire" Scotch or English? for the law differs in the two countries.

"PROCEEDINGS" OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the abstract of my paper on cholera just published in the *Proceedings* of the Royal Medical and Chirurgical Society, there is one error of the press which is likely to be so perplexing to the readers of the paper, that I shall esteem it a favour if you will allow me to point it out and correct it.

At p. 273, in the sentence beginning at the 13th line, "The physiological correlation of the lung, brain, and kidneys," the word *brain* is a misprint for *liver*.

As the sentence is printed, the *brain* is linked with the lung and kidney as an excretory organ. In the line before that sentence, the word *contrives* is a misprint for *continues*. With apologies for troubling you, I am, &c.

11, Savile-row, August 6. GEORGE JOHNSON.

A LEGAL QUESTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly favour me with your opinion, in your next impression, of the following?—A. and B., a Medical firm, take C., a well-qualified assistant. They bind C. down in a £1000 bond not to practise within ten miles of their residence. C. has been in practice, but unfortunate, and was obliged to throw his affairs into the Court of Bankruptcy. When C. signed the bond he had not obtained his order of discharge from the Court of Bankruptcy. C. not having the order of discharge, will it have any effect upon the validity of the binding of the bond, or whether it would render it null and void? 2. On the death of either or dissolution of partnership, would it render the bond nugatory, or could the surviving partner still prohibit C. practising? I am, &c.

August 5. HUMERUS.

P.S.—Is there a termination to a bond of this nature otherwise than above asked?

*** I. No. 2. All depends on the terms of the bond.

IS ALCOHOL A STIMULANT?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Possibly you may deem the above question almost a puerile one, but I cannot put my hand upon any explicit statement of physiological effects produced by alcohol which shows why it should be considered a stimulant. Will you, Sir, and any of your readers who have thought out this matter, favour me with a statement of the facts which prove that alcohol has the power of acting as a stimulant in the human body? I do not wish to ask for the facts and arguments which are to be brought forward to prove that alcohol is or is not oxidised in the body, thus acting as a food or "natural stimulant," as food, light, air, etc., are often termed.

I refer to what may be termed the purely stimulating effect of alcohol. We coatinually see Physicians and therapeutists speak of alcohol as a stimulant purely, and of its acting as a goad or spur does upon a horse.

I want to learn the reasons for this use of the term stimulant as applied to alcohol, and I think that others also will be interested in the question.

4, Fitzroy-square, W. I am, &c. JAMES EDMUNDS, M.D.

LIEBIG'S FOOD FOR INFANTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The reports that have appeared from time to time in your journal from your correspondent abroad, relating to the discussions concerning Liebig's food by the members of the French Academy of Medicine, induce me to suggest that it is a subject which, in the interests of hand-reared children, ought to be investigated by our own Physicians. A great effort is being made by the promoters of the food to introduce it to public notice, and as much difference of opinion exists in England, as well as abroad, with reference to the value of this composition, it seems desirable that an inquiry should be instituted respecting it, and there can be no more fitting arena for such a discussion than one of the Medical societies of London. I am, &c.

August 3. M. A. B.

*** Time and experience alone will decide this question, which is one of fact, not of argument. Our own impression is that Liebig's food has acquired a good footing here. We know mothers, to whom it was recommended for a first child, who have adopted it for subsequent children; and, *per contra*, we know families in which it is voted a failure. Be it observed, it is absurd to suppose that one food can suit all infants.

CASE OF SEA-SICKNESS TREATED SUCCESSFULLY BY THE SPINAL ICE-BAG.

By JOHN CHAPMAN, M.D., M.R.C.P., Physician to the Farringdon Dispensary.

Miss S., a great sufferer from sea-sickness, has been at sea about a dozen different times, and on no one occasion has she escaped without severe illness. On August 5, 1867, at 4 a.m., she left London-bridge by steamer for Boulogne. Four hours previously, I supplied her with two twenty-inch spinal ice-bags filled with ice and surrounded by a blanket and travelling rug. Of course, from the time the bags were filled to that when the steamer reached the mouth of the Thames, many hours elapsed, but still the ice was so far preserved as to save the patient from suffering, to the extent described in the following letter:—

"Boulogne, August 6.

"Dear Sir,—I have used the ice-bags you were kind enough to lend me for my passage, and I have found them a great comfort. I was free from any sickness whatever as long as the ice was not entirely melted, and suffered but very slightly towards the end of the passage. Had it not been for your ice-bags, I am pretty certain that I should have had to suffer not only during all the time I was on the sea, but also to have been prostrated and unfit for work or enjoyment during two or three days afterwards. This is the eleventh time I have crossed the Chaunel, and never before have I felt so fresh after a passage, and been so free from fatigue, ss I am to-day.

"Thanking you most sincerely for the personal comfort you have bestowed upon me through your discovery, and hoping that many more poor sufferers from sea-sickness may be relieved by it,

"I remain, yours very truly, "R. S."

COMMUNICATIONS have been received from—

Dr. MARKHAM; Mr. TYRRELL; Mr. GANT; Mrs. BAINES; Dr. ROGERS; Mr. R. ALCOCK; Dr. VYSE; Dr. G. JOHNSON; Dr. BENNETT; CUTTO SCIRE—Dr. WHITMORE—Mr. ROBERTSON; Mr. WHEATLEY; AN INDIAN SURGEON; Mr. G. GASKOIN; Dr. B. W. RICHARDSON; Mr. J. HINTON; Mr. JAMES FLACK; Mr. J. CHATTO; Dr. BISHOP.

BOOKS RECEIVED—

Glasgow Medical Journal, No. 16—Edinburgh Medical Journal, No. 146—The British Journal of Dental Science, June—Medical Mirror, No. 44—Cross on the Mineral Springs of Auvergne—Trousseau's Clinical Medicine, Part 3—The New York Quarterly Journal of Psychological Medicine, July—The New York Medical Journal, July—Fraser on the Akaaga Ordeal of West Africa—Duncan on a Lower Limit to the Power exerted in the Function of Parturition—The Broadway, No. 1.

NEWSPAPERS RECEIVED—

The Daily News—Huddersfield Chronicle—Laboratory—The Scotsman—Scarborough Express—The Surrey Times—Medical Press and Circular.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·882 in.
Mean temperature	55·0
Highest point of thermometer	70·2
Lowest point of thermometer	49·9
Mean dew-point temperature	48·1
General direction of wind	Variable.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 3, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Aug. 3.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Aug. 3.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082373	29·5	2264	1421	1291	70·2	40·9	55·0	0·00	0
Bristol (City)	165572	35·3	132	74	172	71·7	45·0	54·5	0·00	0
Birmingham (Boro')	343948	43·9	216	167	159	68·0	43·4	56·4	0·03	3
Liverpool (Borough)	492439	96·4	426	285	274	68·3	49·0	58·1	0·02	2
Manchester (City)	362823	80·9	285	205	‡198	71·3	44·8	54·6	0·00	0
Salford (Borough)	115013	22·2	91	58	61	67·4	42·3	54·5	0·00	0
Sheffield (Borough)	225199	9·9	201	119	95	67·2	45·0	55·4	0·00	0
Leeds (Borough)	232428	10·8	265	118	117	73·0	43·5	56·8	0·00	0
Hull (Borough)	106740	30·9	‖68	49	‖44	65·0	42·0	53·8	0·10	10
Newcstl-on-Tyne, do.	124960	23·4	93	66	65	64·0	44·0	53·4	0·03	3
Edinburgh (City)	176081	39·8	121	85	88	66·7	45·0	56·4	0·00	0
Glasgow (City)	440979	87·1	360	257	207	67·7	44·1	56·4	0·00	0
Dublin (City and some suburbs)	319210	32·8	173	‡157	133	69·4	38·7	57·0	0·11	11
Total of 13 large Towns	6187764	34·3	4693	3061	2804	73·0	38·7	55·9	0·42	2
					Week ending July 27.	Week	ending July 27.			
Vienna (City)	(1863) 560000	..	..	..	..	..	§	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·832 in. The barometrical reading decreased from 29·87 in. on Sunday, July 28, to 29·82 in. on Thursday, August 1.

The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 59·2°.

‖ The totals for Hull include an average of previous returns for one sub-district, from which the usual return has not been received in time for insertion.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 3, 1867.

BIRTHS.

Births of Boys, 1139; Girls, 1125; Total, 2264.
Average of 10 corresponding weeks, 1857-66, 1704·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	653	638	1291
Average of the ten years 1857-66	728·4	703·9	1432·3
Average corrected to increased population	..	..	1447
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	3	5	1	1	4	38	1
North ..	618,210	5	4	9	..	2	9	48	6
Central	378,058	2	2	2	..	4	4	33	1
East ..	571,158	8	4	1	1	5	9	53	7
South ..	773,175	5	3	5	2	10	9	45	4
Total ..	2,803,989	21	16	22	4	22	35	217	19

APPOINTMENTS FOR THE WEEK.

August 10. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

13. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

16. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

CHOCOLAT-MENIER.

(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

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Nepenthe does not produce headache, stupor, giddiness, depression of spirits, diminution of nervous energy, prostration of strength, nor constipation, but induces natural and refreshing sleep. It may be used with perfect safety in every case where an Opiate is indicated, and from the peculiar process by which it is prepared it is deprived of all constituents which render the Tinctura Opii, and most other forms of Opium, in very numerous instances wholly inadmissible. It is always of uniform strength, and in this respect possesses high advantages. **Price 8s. per lb.**

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	Ferri Prot.-Oxyd. ..	2
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ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

ON THE LOCAL INDEPENDENCY OF NERVOUS FUNCTION.

In the course of these experiments on the temporary local destruction of nervous functions, no fact is more striking than the perfection of the isolation of the nerve-centres. Perhaps this mode of speech hardly expresses what I would convey, but I do not know better how to explain myself. The simple truth is, that the brain structure is one of the most indifferent conductors of caloric with which we can become acquainted. It can receive the force and hold it, but it conveys it badly. This is a provision of nature as beneficent as it is beautiful, for if the force of the nervous system could pass readily and immediately from one part to an adjoining part by conduction, individuality of function would be impossible. There would be but one organ, not, as there is, a series of organs linked together in structure, but isolated in regard to speciality of function. So, again, if by direct conduction one nervous centre could take up the force of the adjoining centre, it would constantly happen that the whole force of the system would be carried away at a single point, and a man might quickly be killed by having one hand or foot exposed to intense cold. The indifference of conduction practically prevents these occurrences, and secnres individuality of action with continuity of structure so excellently that we can fully destroy, by the direct and limited action of extreme cold, the function of a single centre, without involving any other. Dr. Sedgwick, in one experiment, even succeeded in freezing the superficies of the left cerebral hemisphere of an animal, without in any way affecting the superficies of the right hemisphere; and this experiment can be extended to every segment of the nervous tract. When thus we pick out a part, and paralyse it for a time, we destroy specifically the function of that part, and we discover what is lost in function by such destruction. Peculiarly we discover the unity of function pertaining to the part. It appears to us as though the brain were not made up of portions of the same matter all united into one organism, but as though it were distinctly mapped out into insular divisions, each well separated from its neighbour, and having its own duties. It is like a continent divided into so many nations, all united by soil and air and other bases of existence, but yet each exercising a special function in regard to the continent at large, each having its own language, its own genius, its own laws.

What determines this localisation of power I cannot say with certainty, for as yet there has been seen nothing in the minute structure of brain matter to indicate a physical separation of parts. It is true we see difference in the grey and the white structure, and we assign with good reason the volitional force to the grey, the motional force to the white; but this is not a sufficient definition, because these parts themselves have special centres, with special functions assigned to each centre. The only mode by which I can see a separation is by the vascular supply of the nervous system, and by the bad conducting power of nerve matter. As each centre is supplied with its own vessels, through which alone it derives its force, and as each centre possesses the power of retaining force, there is set up an independence of organism in every part sufficiently perfect, I think, to secure isolation of function with unity of construction. The subject is one on which we can all think, and if we do not understand the reason of it, we at all events have the fact that each nerve centre is practically an independent centre of force.

In describing this local independency of nervous function, I refer of course specially to physical facts, not to those metaphysical, or I had better have said psychological, arguments which the illustrious Gall instituted in regard to the isolation and development of the organs of the mind. In experiments on the inferior animals with extreme cold, it is only possible to observe the destruction of those functions which come under the direct observation of the senses—symptoms which are motor in character, and which cannot be traced back to any voluntary—that is to say, any purely volitional act of the subject. We must, therefore, rest content with the physical demonstrations we have seen, and leave the metaphysical as they were. At the same time, it would be unjust not to allude to the circumstance that, by the process of analogical reasoning, the argument of Gall is very powerfully strengthened. If each portion of the nervous system which governs motion is an independent local centre of power, it is a fair inference that each portion of the nervous system governing the mental acts is also an independent centre of power, for it is not probable there would be two methods for the reception of force in one series of organic structure—a structure which, whether presenting itself as grey or as white matter, possesses the same physical characteristic in respect to conduction of force.

I append the above observation without any suggestion of adhesion to the theories of Gall in detail or to his classification of the position of particular organs in the cerebrum. His classification may be right or wrong; his grand generalisation, from analogy purely physical, is certainly possible, and is most probable.

ON THE BALANCE OF NERVOUS ACTION.

Intimately connected with the fact of the independency of the nervous centres is another fact—I mean the balance of power which exists between certain nervous centres. We are accustomed readily enough to appreciate the balance of *muscular* power; we know how one muscle, or one system of muscles, balances, or, as it is commonly said, antagonises the muscle or the system of muscles which may be in opposition. We have not, however, been able to recognise until now, because we had not previously had the means in our hands to ask the question of Nature, that this same balance of function also holds good in regard to certain parts at least, and perhaps to all parts, of the nervous system. But our present experiments present this truth in the most conclusive manner; it may be well to recall two of these experiments in illustration.

You will remember that when we freeze the cerebellum we obtain backward movements of the body; when we freeze the corpora striata, we get forward or propulsive movements; when we freeze both, we get a negative condition—a paralysis. Thus we are led by the logic of experimental fact to the conclusion that these two nervous organs or centres balance each other in function, as in my arm the biceps and the triceps muscles balance each other in function. When by my volitional power I will to walk forward, it is my cerebellum which regulates the power and governs the movement, while the corpora striata remain in abeyance. When I will to walk backward it is the corpora striata which regulate and direct the act, while the cerebellum remains in abeyance.

The effects of this balance are singularly remarkable; they are seen in operation in nearly every act of life. When we go to sleep after long mental watching, the active retina, the active motor nerves that keep open the eyelids, the active portions of the anterior parts of the cerebrum with which these nerves communicate, exhaust first. Hence, under this condition the universal experience is towards an inclination to bend forward, and hence those nodding-forward movements which indicate the transitional stage from partial or anterior sleep of the brain to sleep of the whole structure, cerebral and cerebellar alike. When, again, we go to sleep after severe propulsive exercise, as after long walking, the cerebellum exhausts equally with the cerebrum, we feel desire to rest the whole organism, and we pass into temporary oblivion at once without any transitional stage at all. And this indeed is the normal state of sleep, that the brain shall be exhausted equally, and this indeed is the normal state of waking, that the brain shall be recharged with new force, during sleep, equally in all its parts.

Apart from the phenomena of sleep, there are other phenomena which are commonly observed in daily life, and which are readily explained when the balance of the nervous power, as located in particular centres, is taken into proper consideration. Impulse, sudden, vehement, propulsive, under the influence of any impression which for a moment overpowers or paralyses the cerebrum, is thus explained. Whenever the cerebrum is overcome by sudden shock, it fails in power the same as when its structure is deprived of force by the direct action of cold; then the propulsive cerebellum less affected shows its force unchecked, and there is forward propulsion. In the heat of battle it is not cerebrum, but cerebellum, which propels the man on; in the chase, in the race, it is the same; and my friend Mr. Alfred Haviland, taking up this same line

of thought from these our experiments, has, I think very happily, suggested that that form of propulsive vehemence which nearly all persons feel when they look over a deep precipice or battlement is accounted for in a similar manner. The cerebrum, overcome by the impression made upon it, is for the moment deprived of power. The corpora striata sharing in the catastrophe, the balance between them and the cerebellum is destroyed on their own side, and the cerebellum, acting with sudden uncontrolled force, gives the initiative propulsive start, which is felt as the expression of an unreasoning and morbid desire to rush forward regardless of the result.

(To be continued.)

ORIGINAL COMMUNICATIONS.

AN EASY METHOD OF TAKING CASTS.

By Mr. LAWSON TAIT.

Although the importance of casts as means of instruction in diseased appearances is allowed on all hands, yet their comparative infrequency in our museums is still a matter of regret. The section of a tumour, injected after removal, and mounted in a glass bottle, is undoubtedly an object of great interest for the Surgical pathologist; but the cast of the same tumour *in situ* would be of more service for clinical instruction, especially if artistically coloured to resemble life. Casts record clinical facts and appearances of which no amount of description or pencil illustration can convey an adequate idea. With regard to tumours this is especially true. A series of casts of the various kinds of morbid growths occurring in any special region of the body—say, for instance, in the front of the neck—would be almost as valuable to the student as the actual cases, more especially if the wet preparations of the tumours were in juxtaposition. Mr. Butcher, of Dublin, has a private museum, in which any one might spend many hours with advantage. In a comparatively short life, amidst the arduous duties of an immense practice, he has found time to make, with his own hands, nearly a thousand casts; and not only that, but he has coloured them in oil in the most beautiful way. During a recent visit to Duhlin, I spent a few hours with him among his casts, and learnt as much in that short time as students generally do in as many months' Hospital instruction. One cast struck me particularly on account of the magnificent rendering it gave of the appearance of the malignant cachexia. It represented the entire body of a woman who had died of malignant disease, and the lesson could not be more faithfully given by the actual corpse.

The reason why casts are not of more frequent occurrence is undoubtedly because the ordinary methods of making them are troublesome and expensive. When a case occurs of which a cast might be made, the Practitioner in charge may not have time to conduct the laborious process of making a plaster matrix—time may not allow, from the rapid alteration of appearances or from a hurried burial; or he may not feel inclined to go to the expense of from ten to sixty shillings to get a workman to do it for him. Besides, the plaster required to make the matrix of a large cast becomes a very considerable item in the expense. In this way hundreds of important acquisitions to our museums are lost yearly. By the means I propose to bring into use the trouble and expense of making the matrix are greatly obviated, and the process rendered one which any one may undertake, however unskilled.

Nearly two years ago I introduced paraffin as a means of treating fractures, and since then I have not been disappointed in its use. The perfect way in which it adapts itself to the body induced me to try it as a matrix for casts. The process is as follows:—Having placed the patient in an easy position, in which he will be steady, the part of which the cast is to be taken is to be oiled, and then coated over with melted paraffin (about 105° Fahr.), applied by means of a broad camel-hair wash brush. Layer after layer of paraffin is to be added, till sufficient strength is obtained for the matrix; a quarter of an inch is quite sufficient, except for the largest casts, and at points where motion may occur, as in the neck. The process is facilitated by having an assistant quietly blowing with bellows as each coat is applied. After the requisite thickness is obtained, and during the few minutes in which the paraffin remains plastic, a sharp penknife is to be run over the lines requisite for the removal of the matrix. A cold water cloth is then to be applied over all for five minutes, when the pieces may be removed, and reunited by a hot wire. Plaster is then to be run into the matrix in the usual way, and after it has set the paraffin is to be carefully broken off, and the cast dressed. In this way I have finished a large cast in less than an hour, and have turned out some quite equal to any I have seen done in the old way. The process has the advantage of being a very cheap one, the paraffin being scarcely fivepence a pound, and it does over and over again. The quantity of plaster required is trifling, as I have made the casts of two hands and arms and a head and neck from sixpence' worth of plaster. If duplicates are wanted of the cast, they may be had by so arranging the divisions of the matrix that it may be lifted off the cast, as is done with the plaster matrix; or, what is better, by making another matrix from the cast; or, what would be easier than any, making several matrices from the subject. The colouring of such casts can, of course, be done only by those who have the special skill for it; but even without colour a collection of casts of some of the cases of daily occurrence would be an important acquisition as a means of study, and also, I think, might be made available for the purposes of test examinations.

AMPUTATION OF BOTH THIGHS.

RECOVERY FROM THE FIRST OPERATION—DEATH AFTER THE SECOND FROM OSTEO-MYELITIS.

By J. FAYRER, M.D., F.R.S.E.,
Senior Surgeon, Medical College Hospital, Calcutta.

H. D., an English girl brought up in India, aged 17, of delicate constitution and strumous diathesis, was admitted into the Medical College Hospital, Calcutta, on March 1, 1866. She had been suffering for the last six or seven years from strumous disease of the right knee-joint. The ulceration began on the integument near the knee, and had gradually been extending over the lower part of the thigh, the knee, and leg, until the joint had become completely disorganised, and the limb atrophied. The tibia dislocated, the right knee contracted and rigid, and the muscles of the limb wasted, and the joint very tender on pressure over the condyles of the femur, showing that the bone was also involved in the strumous disease, though as yet there was no active mischief in the limb. There were several deep sinuses in the lower part of the right thigh, communicating with the joint, and the bone in places had begun to exfoliate. The cancellar structure appeared to be infiltrated with tuberculous matter. There were several of the peculiar white cicatrices of former strumous ulcers on the limb and other parts of the body. For the past few weeks her health had been failing. She had had diarrhœa, and had been wasting rapidly, notwithstanding the administration of iron, cod-liver oil, port wine, and good food. As it appeared that the only chance of saving life was by removing the limb, she was brought to the Hospital, and the operation was performed on March 7. Amputation was performed by double flaps at the junction of the upper and middle thirds of the limb. Twenty-three ligatures were applied. The bone was small, and the medulla looked unhealthy. She bore the operation fairly under chloroform; indeed, her pulse rose under its influence, and continued to be better throughout the day.

March 8.—She is sick this morning; pulse 120; slight fever in the night. Bowels freely opened by enemata. Light dict; saline effervescing draughts when feverish.

9th.—Better; no fever. Stump looks well; sero-purulent discharge already appearing.

10th.—Three ligatures came away this morning. There is a thin purulent discharge. No fever; but the pulse is quick, 130 in the morning, 140 in the evening. Temperature in axilla 100°. The stump looks well. She takes her food fairly, and six ounces of port wine daily.

12th.—Pulse better; all the ligatures except the femoral have come away. I should mention that the femoral vein was tied, as it bled very profusely during the operation. Takes her food fairly; has a slight cough.

13th.—Doing well; the femoral artery ligature came away to-day; stump nearly healed; slight discharge still at the commissures; pulse 100; temperature in axilla still 99° to 100°.

15th.—She is slowly improving; the stump has so nearly healed that all the wire sutures were removed. A tendency to diarrhœa checked by astringents.

25th.—Has been improving, but to-day is not quite so well. Pulse quickened; stump tender on pressure, and cicatrix tense and œdematous, suggestive of mischief commencing in the bone beneath. No rigors, but the pulse up to 128, and the temperature in axilla 104°. I had her removed from the Hospital to her home for change of air. She improved after her return home; the tenderness of the stump subsided, and the excitement passed away. She gradually improved in health, but ulceration began again in the cicatrix, and a collection of pus formed near the bone, which was evacuated. All this time she was taking preparations of iron, cod-liver oil, wine, and good food.

On April 24, the stump had quite cicatrised, and she was returned as "recovered."

She was readmitted on February 18, 1867, with the left knee in much the same condition as the right had been when she was in Hospital nearly a year before. Extensive ulceration, with exfoliation of bone, disorganisation of joint, and backward dislocation of the tibia. The stump of the right leg is also extensively ulcerated. Amputation was performed about the middle of the thigh by the modified circular operation. She bore the operation well under chloroform, and, as on a former occasion, a large number of ligatures were required. The flaps were brought together with catgut sutures.

19th.—She is doing well; slight venous oozing from the stump; no fever. As on the last occasion, vomiting continued for some time after as a consequence of taking chloroform.

20th.—Better, but very weak; still slight venous oozing from the stump.

21st.—Doing pretty well; several ligatures have come away; takes her food well; a thin purulent discharge commencing.

23rd.—All the ligatures but two have come away; no fever; discharge thin. The catgut sutures answer admirably, they are not softened, and do not cause the least irritation.

25th.—All the ligatures except the femoral have separated; discharge less; she is doing well.

March 3.—She has not been doing so well for the last three or four days. On the 1st she had a rigor and was feverish; pulse also was weak, rose to 140 in the evening. The soft parts of the stump look healthy, but they are retracting, and at the bottom of a sinus, in the line of union of the flaps, there is a portion of denuded bone. The symptoms are very suspicious. Removed her bed to a more airy part of the ward.

4th.—She is not doing well. The pulse is quick and feeble, she is feverish. Examined the bone carefully, and found the medulla protruding, and the periosteum stripped for a short distance round the end of the bone. The medulla, though protruding, is also detached from the bone. A drop of pus exuded during the examination. I fear there can be no doubt that osteo-myelitis is setting in. She is too feeble to bear amputation at the hip-joint. There is a hope that the mischief in the bone may be local.

5th.—Is no better, has had more fever, is very weak. Stimulants, quinine, and iron are given with eggs, beef-tea, wine.

6th.—No better, very weak. This morning a consultation was held as to the propriety of amputation at the hip-joint as the only chance of saving life. But she became so low (pulse barely perceptible under chloroform) that it was not deemed expedient to incur the risk of death on the table under the operation. Stimulants, quinine, and iron were given freely.

8th.—She is gradually getting weaker; the pulse rapid, breathing hurried, and rigors followed by sweats at irregular intervals. She continued much in the same condition until the 17th, when she sank from exhaustion and obstruction to the pulmonic circulation by the formation of fibrinous coagula in the right side of the heart.

The body was examined on the 17th at 8 a.m. The lungs were free from tubercle, and the greater parts of both were healthy and crepitant. A large portion of the right lung and also of the left was consolidated. There were several well-marked pyæmic (gangrenous) patches in each lung, one large one in the right lung the size of a rupee. No pleurisy; no effusion into the thorax. The heart healthy, but contained firm white ante-mortem fibrinous coagula in the right auricle and ventricle, and extending far into the ramifications of the pulmonary artery. There were also smaller clots of a similar character in the left ventricle and aorta. Liver and spleen healthy. Kidneys large, but not so healthy. No suppuration in the pelvis. Suppuration had occurred round the bone, and the periosteum was denuded in places. The femur, on a longitudinal section being made, was found to contain deposits of pus throughout the whole extent of the medulla; indeed, the bone was in a complete state of diffused osteo-myelitis.

Remarks.—Death in this case was the result of osteo-myelitis—that is to say, of the blood-poisoning consequent on diffuse suppuration in the medulla of the divided femur. The immediate cause of death was probably the formation of fibrinous clots in the right side of the heart and pulmonary artery, the supply of blood to the pulmonic circulation being thus interfered with. This plugging of the right side of the heart is a frequent cause of death, not only in cholera and other exhaustive diseases, such as cramp, diphtheria, etc., but also as the result of changes wrought in the blood in pyæmia, whether caused by osteo-myelitis or other source of septicæmia. It is a condition we frequently observe in our patients in this Hospital, and is one that we readily diagnose in its incipient stages, even two or three days before death; for to the ordinary symptoms of pyæmia are added great rapidity and urgency of breathing, whilst at the same time the air is freely entering the air-cells, feeble and irregular pulse, with great restlessness and delirium, which ends in death. The post-mortem condition of the lungs and heart confirms the diagnosis, and explains the phenomena. In cases of pyæmia we find that parts of the lung have become solidified, ecchymosed, and interspersed here and there with the true pyæmic patches of dead tissue, varying in size from a pea to a five-shilling piece. These are generally surrounded by an areola of congestion, sometimes, if the patient have lived long enough, with suppuration, and in the centre we find dead tissue bathed in a sanious or puriform discharge. Such are what are so frequently, and, as I think, erroneously, called abscesses. They are not, in fact, abscesses at all, and when true pus is formed either in them or about them, it is a secondary consequence, the result of a process set up round the dead tissue, just as we so frequently see it in the ordinary furuncle, where the first event is the death of a portion of tissue, the second the suppuration by which it is separated and thrown off from the living part. These local deaths are due to capillary embolism and to blood-poisoning. In addition to these changes in the lung, or similar ones in the liver, spleen, or kidneys, we frequently find the pleura to be the seat of puriform or purulent effusions, either on the surfaces or into the cavities—the former most frequently in the vicinity of the dead patches, which are found chiefly at the bases and near the surfaces of the lungs. It is in conditions such as this that the formation of fibrinous coagula in the heart readily occurs, and when it does so, death generally, if not always, results. But I may here repeat what I have elsewhere noted, that this supervention of cardiac pulmonary embolism by fibrinous coagula may occur altogether independently of pyæmia or the other diseases to which I have referred; and as a result apparently of any wound or Surgical operation—indeed, as one of the consecutive dangers of Surgical proceedings—it has not received the attention to which it is entitled. Whatever the condition of the blood, the blood-vessels, and the innervation may be that favour the occurrence of this fatal pathological change, there is, I think, no doubt that it may be so induced. A case recently came under my observation in which, after removal of a large tumour, when all was progressing favourably, and the wound had nearly healed, symptoms of embolism suddenly made their appearance, and rapidly carried off the patient. The earliest symptoms observed were facial paralysis of both sides and squinting of one eye, with signs of plugging of the right side of the heart or pulmonary arteries. The post-mortem examination revealed a heart firmly plugged on the right side with fibrinous coagula, and also similar, though smaller, coagula in the left ventricle and aorta A patch of softening of the medulla oblongata close to the pons and emergence of the seventh and sixth nerves, due to plugging of the inferior cerebellar artery by an embolus, probably from the left ventricle, explained the facial paralysis and squint. In this case there was no other way of accounting for it than as a result of the operation. I have observed similar results in other cases, and where no other cause than the operation or wound could be assigned. But there are other points of interest about the case of this poor girl. The fact of amputation of both thighs is itself one. The recovery from the first operation, and the fatal result of the other from osteo-myelitis, are also of import with regard not only to the condition of the patient after the loss of so large a portion of the body, but also in reference to the hygienic conditions under which she was placed. As I have elsewhere said, recovery from amputation of the thigh is a somewhat rare event in Calcutta under any circumstances. The first amputation was performed just

after the Hospital had been emptied of all the patients, fumigated, and whitewashed, and before any other patient had been readmitted. The second was performed when the Hospital was full, but when every attention was paid to cleanliness, and all overcrowding avoided. In the first instance recovery occurred; in the second, when all seemed to be going on favourably, osteo-myelitis insidiously set in, and had its usual unfavourable result. Amputation at the thigh was considered, and she was actually placed on the operating table and under chloroform, but the extreme debility and depression not leaving any apparent hope of her surviving the operation, it was deemed advisable not to incur the risk of death on the operating table. The appearances after death exactly corroborated the diagnosis made during life.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GERMAN HOSPITAL, DALSTON.

NOTES ON MEDICAL ELECTRICITY.

Cases in the Out-patients Department treated by Electricity.—Case of Paralysis of both Ulnar Nerves in a Little Child—Case of Atrophy of the Musculus Supinator Longus in a Man—Case of Paralysis of all the Muscles of the Left Leg of a Man from Injury—Apparatus for, and Method of, Faradisation—Account of Recent Researches in Germany on the Action of the Galvanic Current.

We intend this time to report on some cases of local paralysis, treated by electricity, which have lately come under our observation at this Hospital. In a little girl, 3 years old, who was brought to the Hospital on March 11 with a small fish-bone in her throat, which was removed by Dr. Hirsch, one of the Resident Medical Officers, it was accidentally noticed that all the fingers on both hands were in a peculiar hyper-extended position. It was the same position which is generally observed in cases of paralysis of the interosseous muscles (ulnar nerve), which in its highest degree gives the hand a claw-like appearance, and has therefore, by Duchenne, received the name of "la griffe." On being questioned about it, the mother stated that for about six weeks past the child had gradually lost the power of picking up anything with her fingers, and that since then she had observed them to assume this peculiar position. The child is rather small for her age; a twelvemonth ago she had had whooping-cough, scarlatina, and measles, but had got quite well again afterwards, and was apparently in good health when the hands began to be affected. The mother did not notice that the child had any sore-throat about or before that time.

On further examination, it was found that all the fingers of both hands stood a little apart from each other, that each first phalanx was hyperextended, whilst the second and third were slightly flexed. Otherwise the hands were well formed, and no atrophy of any muscle could be detected. The child being very intelligent, it could also be ascertained that it was impossible for her to bend the first phalanx down, or to move the fingers laterally; she was, however, able to shut her hand to a fist. When asked to pick up something from the table, she first placed the thumb close to the object, afterwards drawing, by a movement of the whole arm, the other fingers on to it. A faradic (induced) current of moderate strength was applied to the several interosseous muscles, but no contraction of the muscles followed. It was at first thought that the subcutaneous layer of fat, which in children generally is more developed and greatly weakens the effect of the electric current, might, in some measure, be the cause thereof; but although the strength of the current was gradually increased, not the slightest contraction could be produced in any of the interosseous muscles, whilst on the muscles of the forearm a much weaker current produced contraction. It was also observed that the sensibility of both hands appeared rather diminished, the child bearing a current on her hands without signs of pain, which, when applied to the forearm, immediately caused her to cry. The same diminution of sensibility, as well as the entire absence of muscular excitability, was observed on further occasions, but Dr. Bäumler, who from that time saw the child once or twice a week to faradise the affected muscles, was on repeated examinations unable clearly to make out any difference in the sensibility of those parts of the hands supplied by the ulnar from those supplied by the median and radial nerves. We must not omit to state also that those muscles of the thumb which are not supplied by the ulnar nerve contracted but slightly to a rather strong current, although the voluntary movements of the thumb were not suspended.

On March 17, the motility somewhat better; the two index fingers have nearly their normal position. The mother states she complained a few days ago of a feeling of pins and needles in her right hand.

On the 24th, the improvement was more marked still, although a current which promptly acts on the muscles of the forearm does not yet produce the slightest contraction of the interossei.

On April 8, the middle finger of the right hand was also straight—on the left one only the index, all the others still remaining with the first phalanx hyperextended.

On May 27, the improvement had markedly increased, the sensibility being much greater, and the position of all fingers being now quite normal. The child can now again pick up very small objects. On the right hand all the interossei act promptly to a current of even moderate strength; not so well yet those of the left hand, especially the second, third, and fourth.

When we last saw the child on July 1, the motility (voluntary), as well as the electric contractility, could be considered normal, and all the fingers were in a natural position. The case is incomplete, no examination having been made with the galvanic (continuous) current, and, as the muscles did not act to the faradic current, it must remain doubtful to what extent the recovery is due to the electric treatment; but the improvement of motility (to the will) of the paralysed muscles at a time when the faradic current did not produce any contraction of them is by no means a solitary fact, Duchenne having already observed cases of the same kind. The progress of recovery from the radial to the ulnar side of the hands is also in accordance with Duchenne's observations in cases of paralysis of the ulnar nerve. As to the cause of the paralysis in this case, repeated careful examinations of the child failed to disclose anything which might have led to an explanation; there were no symptoms on the part of the nerve centres whatever, there was no history of diphtheria, and nothing could be detected in the course of the ulnar nerves to account for the impairment of their function. This question must therefore remain an open one. Dr. Weber, who also saw the patient once, remarked that it very much resembled those cases of chronic nerve affection appearing during convalescence from acute diseases, and probably depending upon impaired nutrition. Besides the electric treatment, the child took cod-liver oil, as she appeared rather pale and flabby, although tolerably well nourished. Her general health is quite good, but her mother says that she is rather nervous, and easily trembles if anything unexpected happens.

Another case of interest which we saw among the out-patients, also under the care of Dr. Bäumler, is that of a man—T. F.—59 years of age, who had been attending since March principally for chronic bronchitis and emphysema, and who also complained of a weakness of his right arm, which trembles a good deal. He is a needlemaker by trade, and complains that this weakness of his right arm greatly interferes with his work. It first came on about ten years ago, when, one morning, after getting up, without any alteration in the sensibility, he felt himself unable to use the hammer with his right hand; he had "lost the guide in it," as he expresses himself. Gradually it got better, and he could work again for half a day, but this arm always remained weaker, and for the last year it began to tremble. On examination it appears that the arm does not tremble in all positions; it does not, for instance, when it is hanging down or held out straight, but the forearm at once begins to shake when it is bent, and the shaking is greatest when the bent forearm stands in a position between pronation and supination. This pointed to the musculus supinator longus as the muscle principally affected, and on comparison of the two arms this muscle was found to be very much atrophied on the right arm, whereby a marked difference of appearance was caused in the place where that muscle is situated on both arms. This difference is still more clearly brought out by applying the electric current to both muscles, when that of the right arm slowly contracts in the shape of a thin band, whilst the left one readily acts and forms a rounded prominence of considerable bulk. Otherwise, no marked difference can be detected in the muscles of both arms. The muscle was faradised once a week, and, after this treatment had been continued for some time, not only did the patient

declare that he felt stronger and that the trembling was less in that arm, but a decided improvement was visible, already in May, by the increased volume of the affected muscle, and by its greater excitability by the electric current. The patient's general state of health, which has lately been rather low, seems to have great influence on the right arm; he says he always trembles more when he generally feels weaker and lower. The treatment is still continued.

A case of paralysis of all the muscles of the left leg in a man was shown us by Dr. Burger, one of the Resident Medical Officers, under whose care it has been fur some time. This man had lost the use of his leg in consequence of an injury to the lower part of the thigh above the knee-joint by a heavy chain having fallen on it. Considerable inflammation and swelling followed, and after this had disappeared the voluntary power over all the muscles of the leg, which are not much atrophied, was completely lost. All the muscles, however, act well to the faradic current, and Dr. Burger tells us that, since he has been under treatment, their excitability has considerably increased, although no sign of returning motility has yet appeared. As many months have elapsed since the injury took place, the favourable state of nutrition and excitability of the muscles seems to give good hopes for ultimate recovery. We shall, on a future occasion, report on the progress of this case, of which we have only given the outlines at present, reserving a complete account of it for the future.

These cases illustrate the beneficial influence of the electric treatment on the functional and nutritive state of the affected muscles. It might almost seem superfluous to point to the therapeutic value of electricity at the present time, sufficient evidence, one would think, having been collected within the last twenty years to establish it beyond doubt. Still, there are not a few Practitioners who seem not yet to share this conviction, but we cannot help thinking that this distrust is the result either of a disappointment of too sanguine or too indiscriminate expectations, or of failures which may be partly due to some deficiency in the method of application. We must come to that conclusion if we see or hear from patients that the method resorted to by open-air electricians—namely, of giving the patient a pair of brass handles to hold in his hands—is still made use of by Medical men or even in Hospitals, or that a conductor is simply carried up and down the affected part. It may therefore not be quite out of place to say here a few words on the method of applying the electric current; and although it does not properly fall within the scope of a Hospital report, still, we think, it may not be unwelcome if we give a short account of what we have had an opportunity to learn with regard to the more recent labours in this interesting field of Medical science.

By applying the electric current in the way just mentioned, which may be called the "ante-Duchennian" method, the sensitive nerves of the skin only are irritated if the current is weak, and if stronger quite irregular reflex contractions of different muscles are produced. A new era for Medical electricity commenced with Duchenne's discovery that the electric current can be localised to certain parts under the skin if the conductors are covered with a moistened conducting substance (such as sponge or leather), and firmly pressed on the skin. Duchenne's beautiful researches into the physiology of the different muscles, which he has just presented to the Medical world, would not have been possible but for this method, which he calls "*electrisation localisée.*" In fact, all that physiology and Medical practice owe to Duchenne and others after him is due to the adoption of this principle, which received a further important addition by Remak, who has first clearly pronounced that, in order to produce a complete contraction of a muscle by the electric current, the irritation of its nerve is the most effective means. Duchenne had already spoken of "*points d'élection*" at which the application of the electrodes was most effectual; and these points, it appears, correspond to the places where the nerve enters its muscle. A further step conducive to the practical development of the method was made by Ziemssen,(a) who, by experiment and careful anatomical dissection, determined the relative position to the skin of those places at which the nerves of the different muscles enter them or can be reached by the current. The knowledge of these points is of first importance for the practical use of electricity in Medicine, and Ziemssen has greatly facilitated their finding by plates, obtained by photography from subjects on which he had previously determined and marked these points.

(a) "*Die Electricität in der Medicin.*" Studien von Dr. Hugo Ziemssen. Third edition. Berlin. 1866.

The apparatus in use at this Hospital for faradisation is a small one of Stöhrer's(b) of Dresden, which has been in use for the last seven years. The great advantage of this kind of apparatus consists in its being always ready for use without the trouble and annoyance of each time filling and putting together the different parts. The electromotor in this apparatus is a Bunsen's battery of one or two elements, which Stöhrer has so arranged that, when the apparatus is to be used, the glass containing the dilute acid has simply to be raised a few inches in order to immerse the zinc and carbon. This immediate readiness of the machine makes it particularly valuable for occasions in which no time must be lost in applying the electric current; such as, for instance, when artificial respiration is to be induced by faradisation of the phrenic nerves—a method which, having been first pointed out by Duchenne, has already been put to a practical test in several cases of asphyxia from carbonic oxide and coal-gas, from chloroform, and other causes, by Ziemssen, Friedberg, and others. Ziemssen strongly recommends in such cases faradisation of the phrenic and other inspiratory nerves belonging to the cervical and brachial plexuses, which he excites together by using electrodes with large sponges. This apparatus ought, therefore, not to be wanting in any place where cases of asphyxia from drowning are attended to, nor at any operation where chloroform is used. The electrodes generally used at this Hospital are thick pieces of copper wire, with a small ball at their ends, which is covered with a layer of sponge; different sizes of them ought to be kept, and very small ones only are to be used in directing a current to the branches of the facial nerve or to small muscles. The sponges are to be moistened with warm water, and for exciting any nerve or muscle the negative pole, as having a stronger effect, is to be applied to the place on which the nerve can be best reached by the current, which may then be closed by applying the other electrode either to the same muscle or, what Ziemssen has found very expedient in many instances, to any indifferent part of the body—as, for instance, the sternum or the patella.

The Physicians of this Hospital have not yet been so fortunate as to obtain a galvanic battery for the continuous current, which, after the experience collected during the last few years, seems almost of greater value than the faradic current, and ought, therefore, not to be wanting in any General Hospital. In many cases not only the diagnosis and prognosis must remain incomplete if the affected muscles cannot be submitted to the galvanic test, but it would also seem as if a successful treatment could in certain cases only be expected from the continuous current. For it has been shown—and this fact was first observed in cases of paralysis of the portio dura by Baierlacher, and has since been confirmed in a number of cases, not only of paralysis of the facial nerve, but also of muscles of the extremities (Brückner, Ziemssen, Mr. J. Netten Radcliffe)—that in infantile paralysis, traumatic paralysis, and lead-palsy, as well as in a case of paralysis of the palate and pharynx after diphtheria (Ziemssen), muscles which have entirely lost their excitability by the *faradic* current answer promptly, and even more so than those on the healthy side, to a weak *galvanic* current. In some cases this galvanic excitability became less and less in the same measure as the motility, and with it the faradic irritability, returned. This is, however, not always the case, and matters are more complicated still, for cases have been observed by Eulenburg, Ziemssen, and Mr. Radcliffe, in which the motility of muscles had not been completely lost, or again partly returned, and still the excitability of these muscles by the galvanic or faradic current was, or remained, absent. In other cases the contraction of the muscle on application of the galvanic current is markedly slow, and sometimes only the application of the electrodes to the muscle itself produces contraction, irritation of its nerve having no effect whatever.

Naumann, and after him Ziemssen, have experimentally inquired into this difference of excitability which paralysed muscles present to galvanic and faradic currents, and have come to the conclusion that it is the greater length of time during which the electric current travels in the nerve or muscle in the same density, that produces the effect of the galvanic current on paralysed nerves or muscles, which, under certain circumstances, lose their excitability by currents of instantaneous duration, even if applied in most rapid succession and in greatest strength. Ziemssen has further inquired what, on the part of the paralysed muscles and nerves, may be

(b) Stöhrer's machines are kept in stock by Mr. Pratt, 420, Oxford-street.

the cause of this difference of excitability, and, from comparing with the clinical observations the results of anatomical and physiological research into the changes which take place when a nerve has been divided, he concludes that in cases of peripheric paralysis this difference principally depends on the nutritive alterations which have taken place in the affected nerve. Ziemssen endeavours provisionally to distinguish several degrees of impairment of the affected nerve and muscle, which, although leaving some facts yet unexplained, may serve as guides for diagnosis and prognosis, and which, therefore, we may be allowed to quote from his book :—

"1*st* (*slightest*) *Degree.*—Motility impaired or lost. Excitability by intermittent and constant currents normal. Unimportant nutritive alteration followed by a speedy recovery. The same symptoms are, however, also present in the first week after severe lesions, as long as degeneration has not yet taken place.

"2*nd Degree.*—Motility lost; faradic and galvanic contractility diminished. Slight nutritive alteration; motility returns soon, and the excitability improves under the use of the faradic current.

"3*rd Degree.*—Motility lost. Excitability by the faradic current lost, for the galvanic current preserved in the nerve as well as in the muscle. More serious nutritive changes, generally followed by gradual loss of the galvanic irritability when, in case of recovery, the motility and frequently also the faradic excitability speedily return. Good therapeutic results from the galvanic current.

"4*th Degree.*—Excitability of the nerves by the will, as well as by both kinds of the electric current, lost; the muscles, however, being still irritable by the galvanic current. Complete degeneration of the nerves down into the muscles. Results of galvanic treatment doubtful.

"5*th Degree.*—Nerve, as well as muscle, entirely deprived of their excitability by the will as well as by both kinds of the electric current. Most serious changes of nutrition in the nerves as well as in the muscles. Prognosis unfavourable."

Ziemssen further concludes that cases of paralysis of a peripheric origin, if curable at all, appear to be most amenable to that kind of electric current for which the muscle has preserved its irritability. Cases, therefore, in which contraction of the muscle follows on the application of the faradic current are to be treated by faradisation, those excitable only by the continuous current by galvanisation.

An electric treatment by faradisation is also of very great service in cases where the conductility of the nerve has not at all suffered, but in which the muscles, simply from prolonged rest, as in many affections of bones and joints, or in consequence of a long and exhausting illness, have become more or less atrophied. Faradisation can, in such cases, be applied before the other circumstances would allow the muscles to resume their natural function, and, as shown in the second case related above, their nutrition improves when their function is artificially induced by the electric current. This effect upon the nutrition receives its explanation by some experiments made by Ziemssen, who, as a consequence of the increased chemical action going on in it, observed a considerable increase of temperature of the skin over the faradised muscle, as well as a marked increase of its bulk, immediately after the electric current had been applied for some time.

Ziemssen has confined his remarks on the use of electricity to facts only which are to be considered as clearly established, and he only treats of paralysis of a peripheric origin and of the effects of electricity on nerve and muscle. It is well known that Remak, to whom is due the first impulse of a more extensive use of the galvanic (continuous) current, attributed to it a much wider sphere of usefulness, and even a most powerful influence on the centres of the nervous system themselves. Ziemssen is rather sceptical as to the possibility of reaching the brain and spinal cord with a current of moderate strength; but experiments recently made by Erb(c) seem to prove that such a possibility really exists. Other questions connected with this difficult topic have also been lately approached in the same scientific spirit, among which we may mention the recent inquiries by Eulenburg,(d) and also by Erb, into the laws which obtain with regard to the excitability of the nerve by the galvanic current, with regard to the different action of both poles, and to the direction of the current—researches which tend to bring the beautiful discoveries of Dubois Reymond, Pflüger, and Von Betzold on the physiology of nerve and muscle into more immediate connexion with the physiology and pathology of the living human subject and with Medical practice.

Thus we may hope that the time is not distant when the indications in different cases of paralysis will be more clearly defined with regard to the therapeutic use of electricity, and when this subject will be entirely divested of that vagueness and mysteriousness which have been the cause of distrust with a large part of the Profession, and which in all branches of Medical science have always been the fertile soil on which quackery flourishes.

(c) *Deutsches Arch. für klin. Medicin*, Leipzig, iii. 2 and 3, p. 238.
(d) *Ibid* iii. 1, p. 117.

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Medical Times and Gazette.

SATURDAY, AUGUST 17, 1867.

THE METROPOLITAN MAIN DRAINAGE.

"The rainfall to the river, and the sewage to the soil." This was the alliterative axiom of F. O. Ward and the early school of sanitary reformers. Sewage, they said, is a pretty constant quantity; keep it by itself, and you can easily calculate the size of the pipes necessary to carry it off. Rainfall is intensely variable. If your pipes are to be large enough to carry off all that can fall, they will be so large that the stream of mere sewage in dry weather will trickle languidly along, whilst the empty unfilled space will be a reservoir of foul smells, poisoning the air of our streets and houses. On the other hand, should the sewers be too small to carry off the rain, the surplus, mixed with sewage, will, as of old, run into the river or flood the houses, and so the chance of absolute freedom from contamination of our houses, soil, river, and springs with sewage will be further off than ever.

How far this prediction has been fulfilled may be gathered from our last week's account of the sewage flood in the low parts of London, and from the very remarkable report of Mr. Bazalgette to the Metropolitan Board of Works, dated August 9, which we point to as a sort of critical event in the history of modern drainage systems :—

"An extraordinary rainfall (says Mr. Bazalgette), such as has not been recorded in London for the last twenty years, fell between midnight on July 25 and 9 o'clock on the following morning. During these nine hours three inches and a quarter of rain fell; not, like a thunderstorm, confined to a portion of the metropolis only, but a uniform downfall, extending over the whole of the metropolitan area and the surrounding country. Thus one-eighth of the average rainfall of a whole year fell in nine hours, or nearly one-thousandth part of a year, one quarter of the year's rain having fallen during the month of July.

"It was anticipated that the low-level district of London would be *very considerably* relieved by the main drainage of the flooding which had previously produced such disastrous destruction of property during heavy rains, and those expectations have been *fully realised*. It was not, however, contemplated by the intercepting sewers to carry off all the flood waters produced by extraordinary rainfalls. The reports of the eminent engineers who have considered this subject, and my own commencing in 1854, are numerous and very explicit on this

subject. They propose, in addition to the sewerage, to carry off in the intercepting sewers one quarter of an inch of rain in twenty-four hours. They give an average of the number of days per annum upon which such rainfalls have occurred, and explain the manner in which it is proposed to deal with exceptional rain storms, and how impossible it would be by works of reasonable magnitude and cost to carry off and pump through the intercepting system such exceptional storms as fell on July 25, and which within nine hours deluged London with 26,000,000 tons of water. Such a rainfall may not within the present generation again occur. In spite of the relief afforded by the new intercepting sewers, and the provision made for the escape of storm waters, there were on July 25 some exceptional instances of the flooding of property in the low-level districts on the south side of the Thames.

"The houses of the lower portions of the south side are built within a basin, the rim of which is the River Thames, and at high water the river is six or seven feet higher than the streets, and twelve feet higher than the basements of the houses; therefore, no water can run by gravitation out of their sewers until the tide has fallen. The pumps and intercepting sewers relieve these districts by the constant removal of so much rain as they were designed to carry off. The surplus can escape into the river through the storm outlets only when the tide is low.

"On July 26 the tide was rising as the storm fell, and the accumulated reservoir space of the district's sewers not being sufficient to store the surplus water of that extraordinary rainfall until they could get relief, the flood rose above the level of some of the lowest basements. The protection of the low-level districts against such casualties rests to a large extent in the hands of the local authorities, and it is their duty to provide—1. That new houses shall not be allowed to have basements so much below the level of the river that they cannot be properly drained. 2. That the private drains of all such houses as have low basements shall be protected by flood valves. 3. That all sewers to be constructed in such localities shall be of sufficient capacity to store the flood waters during the time the tide is above the outlets."

The practical facts which strike every one reading Mr. Bazalgette's report are—1st. The necessity of provision in the Building Act for deciding on the level, the drainage, and the subsoil of all houses to be built. 2ndly. The extreme injustice of making London as a whole contribute to the exceptional drainage necessities of those districts which are below high-water mark. If people choose to build or to live there, they should raise their houses on piles, like the ancient lake dwellers, or on causeways, and all expense of drainage should be borne by the owners and occupiers. 3rd. Due notice will be taken of Mr. Bazalgette's demand that the drains should be large enough to store the flood waters—in fact, to provide huge stinking subterraneous caverns.

The mixture of sewage with rainfall converts an ordinary rain flood into a dilute sewage flood. It has been observed by Mr. Clutterbuck in a letter to the *Times*, that there are on the average thirty-eight days per annum during which the main drainage sewers must discharge a portion of their contents into the Thames or elsewhere. One cause of the cholera at the East-end of London last year has been supposed to be the accumulation of sewage in ditches and cuts from the storm overflows of the metropolitan drainage. It is the misfortune of uniting sewage with rainfall that there must be storm overflows; that the floods created by them are not mere rain floods, but sewage floods; and that heavy rain, instead of cleansing, does but spread sewage contamination.

The more the subject is ventilated, the better appear the prospects of the earth closet system wherever practicable.

MEDICAL PATENTS.

Is it right that Medical men shall take out patents for inventions relating to apparatus to be used in Medicine or Surgery? This is a question that is often coming up, and which deserves to be well argued out. On the *prima-facie* view it must be conceded that a man ought to be rewarded for industry and ingenuity, whether the subject of his invention be Medical or not; that some men would not be tempted to work out their ideas into practical use unless protected by a patent; hence that the public are gainers by what is the barest justice to inventors. It must be admitted, too, that if any Medical inventor choose to take out a patent, he has a perfect moral and legal right to do so as a member of society. Whether he is right in a Professional point of view is doubtful, for the following reasons.

We cannot be too careful in keeping up the distinction between a trade and a profession. The tradesman's business is to exchange commodities for money, and in so doing to sell as much as he can, and get all he can by it. The professional man's business is to give *advice;* he receives a gratuity for his advice, but that advice must be entirely disinterested; he ought not to reap the smallest profit out of any commodities which he may recommend his patient to purchase, for if he do, his advice is not disinterested, or if in the case of a man of honour it be so, the public will not think so.

Hence, although it is quite competent to a Medical Practitioner to patent any invention not used in Medicine, we think it a mistake that any one should patent an article which he may have in the course of practice to recommend to his patients.

Let us suppose that Dr. A. had invented a new and ingenious respirator, or Mr. B. a very useful truss or a new orthopædic apparatus, would the public go to either of them for advice with the confidence they now do, if they felt that, besides his fee, Dr. A. or Mr. B. realised a further 50 per cent. on the price of the apparatus recommended? Certainly not; and it is to keep our Profession what it is—a clean-handed body in the main—that we deprecate the idea of patenting any invention whatever which the inventor may have to recommend to his patients.

Let us suppose that the Director-General of the Army Medical Department had patented some new and efficient *ambulances*, or that some official at the Horse Guards had patented a new and improved form of shot or shell, or that Mr. Street or Mr. Barry had patented some new kind of architectural device, would the public voice sanction the purchase of such things at their recommendation in their official or professional capacity? Certainly not.

We are constrained to say that, besides Medical men, there are other men of high scientific repute who ought to be restrained by their position from dabbling in patents. These are men whom the public look up to as teachers, whose sayings are received with implicit credence because they are believed to be disinterested teachers, and who owe the honour and repute they enjoy to this very circumstance. But the moment the idea enters our mind that they get a percentage on the manufacture of the substance they recommend, the illusion vanishes. Baron Liebig has been a great teacher, and is honoured accordingly. The *Extractum Carnis* has come into general use, because recommended by Liebig the philosopher; but we must say that we are sorry to see his name bandied about in the newspapers, as if the Baron condescended to receive a royalty from an "Extract of Meat Company," and pronounced "none genuine without the signature of Baron Liebig," after the manner of patent medicine vendors.

THE WEEK.

TOPICS OF THE DAY.

The Parliamentary Session now drawing to a close has been marked by two legislative acts which directly affect the Medical Profession. One of these, Mr. Gathorne Hardy's Metropolitan Sick Poor Bill, if carried out in its integrity, cannot fail to be, on the whole, a benefit to the Medical staff as well as the poor of London. The other is the Vaccination Bill, of the general utility of which we have fully expressed our distrust. The commencement of the Session promised legislation on several other points of not inferior importance. But the cuckoo which slipped into

the Conservative nest, in the shape of Reform, has starved a brood of domestic improvements which the antecedents of the present Government prove them to be well fitted to rear. Not the least important of these is the Criminal Law Amendments Bill. How urgent the need for a revision of the penal code has been proved of late by numerous criminal cases. The fact that we are on the eve of such a reformation seems to have an injurious effect on both judges and juries. Sentences are passed which it is well known will never be carried into effect, and commuted on the first symptom of pressure from without. The case of James Scott, who lately murdered his employer's brother at Birmingham, is an instance in point. Mr. Gathorne Hardy, on Tuesday night, told the House of Commons that he merely sent a petition he received on behalf of the culprit to Mr. Baron Pigott, who tried him; the judge said he thought the sentence might be commuted, and Mr. Hardy, without himself going into the merits of the case, spared the man's life. Now, we cannot but think that such a confession must tend to weaken the popular respect for justice. If the judge thought that the man ought not to undergo the last punishment, why did he not represent the fact to the Home Secretary at the time of the trial? The petition to the Home-office presented by Mr. Bright could not have altered the guilt or innocence of the prisoner. The truth is, however, that such cases as Scott's, where a degree of insanity may be surmised, and also the cases of infanticide which are now the disgrace of our courts, urgently require special legislation, and we trust another Session will not be allowed to pass without this most needed reform being accomplished.

Dr. Lankester and a coroner's jury have found that the death of a person who had thoracic disease was hastened by the suffocating atmosphere of the Underground Railway. Whether the verdict be a right one or no we need not stop to inquire; for we have known more than one instance in which urgent dyspnœa has been occasioned by breathing the irritating admixture of sulphurous and carbonic acid gases and atmospheric air which hovers, but does not circulate, in the stations in question. No Physician would allow a phthisical or asthmatic patient to breathe such an atmosphere for a moment if he could in any way prevent it, and it behoves the directors of the Underground Railway Company to adopt some sufficient method of ventilation. Could not the means by which ships are ventilated between decks be made available for the purpose? The air of the railway, apart from the stations, is in a degree circulated and changed by the passage to and fro of the trains; but on a foggy morning or on a sultry day to pass half an hour at the station in Gower-street would be a dangerous trial for impaired lungs and heart.

An anonymous writer in the *Times* of Monday relates an instance of a boy said to be suffering from pleuro-pneumonia who was refused admission at University College Hospital on the ground that there was no bed vacant, and at St. Bartholomew's because it was not "taking-in day." Wednesday's paper has the announcement that, during the week ending August 10, 2941 Medical and Surgical cases were relieved at the Royal Free Hospital, of which 989 were new cases; and the *Marylebone Mercury* of Saturday publishes the fact that the Committee of the Royal Free Hospital are about to let to the guardians of St. Pancras a portion of the unused buildings of the Hospital for 150 of the inmates of the Workhouse, provided that the guardians fit up the buildings. Now, certainly these three announcements would furnish a capital text for a sermon on Hospital management and relief. Indiscriminate drug relief to 2941 people having the slightest or no claim on public charity; whilst a large portion of the building intended for the reception of the sick poor is let off for a Workhouse, there being no funds to keep it open; and a case of serious illness dismissed from one of the largest metropolitan Hospitals because the illness did not occur or the patient present himself on the proper day! Surely, at such an Hospital as St. Bartholomew's, every day should be taking-in day. We are glad to hear a rumour that another story is to be added to University College Hospital.

Dr. Cheadle, known as the companion of Viscount Milton in his recent expedition, and the joint author with his lordship of an account of their travels across the Rocky Mountains, has been elected Assistant-Physician at St. Mary's Hospital. The Professional claims of Dr. Fenwick were such as to insure him a large amount of support, and we understand that he was selected with Dr. Cheadle from the other candidates. It is rumoured that, in common with those of other of the London Hospitals, the staff of St. Mary's will be ere long permanently increased.

A case just tried at the Norfolk Assizes affords another warning to Medical Practitioners and others of the danger of infringing the law by taking charge of a lunatic without a legal licence from the Commissioners. The defendant, a Dr. Hone Milburn, has been fined £50 for receiving an insane clergyman into his house, although there were no wrong motives or conduct attributable to him. It is evident that the Commissioners of Lunacy are resolved to carry out the law in its integrity, and Medical men can only break it at their peril.

THE INTERNATIONAL MEDICAL CONGRESS.

The 16th inst. having been the day fixed for the meeting of the International Medical Congress, the assembly will have taken place by the time this number of the *Medical Times and Gazette* appears. The meeting was to have been held in the great hall of the Ecole de Médecine. The number of names on the list—above 700 of Physicians—shows the importance of the Congress. The French department of Public Instruction is represented by M. Denonvillers, Inspector of the University. The Prussian Government has deputed Professor Frerichs to represent it. M. Seitz has been sent by the Bavarian Government to represent the Munich Faculty, and M. Barbosa, of the Lisbon School of Medicine and Surgery, has been delegated by the Portuguese Administration.

THE SCIENTIFIC DEPARTMENT OF THE EISTEDDFOD.

Everyone has heard of the Eisteddfod or annual Celtic gathering in Wales, and of the processions of bards, and harping upon harps, and singing of national songs, which have hitherto been the leading features of the meetings. It must be confessed that they seem fairly to have deserved the name hitherto of "mutual admiration societies;" but a change is now coming over them which will give them quite a national weight and importance. In addition to harps, and songs, and recitations, and processions, there is to be this year a Natural Science Department, on the loan system, which it is intended to develope into a series of annual exhibitions of the geology, mineralogy, fauna, and flora of the Principality, and of its chief industrial achievements. The idea is due, in the first place, to Mr. W. Propert, the accomplished organist and private tutor at St. David's. The classification of the Natural History Department is under the superintendence of Mr. J. W. Salter, F.G.S., with Mr. Hicks, Mr. Propert, and others, as assistants. The meeting will be held at Caermarthen in the first week of September, and will, we are sure, enjoy the patronage and assistance of our Medical brethren throughout the Principality.

CHOLERA.

Though the cholera does not extend its ravages with that rapidity which was characteristic of its earlier outbreaks, it still continues its work of destruction in some parts of Europe. Italy and Sicily seem at present to be its head-quarters, but there is reason to fear its ultimate appearance in countries further west. In the week ending August, the reports

from Sicily show a return of 6612 cases and 352 deaths. Messina has escaped, but a few cases have occurred at Syracuse. In Catania, where the disease is diminishing, the dead were left unburied, and had to be removed by the soldiers, who were compelled to break into the houses for that purpose. From the *Gazette Piémontaise*, we hear that the epidemic is as fierce in Lecco as in Calabria. The *Italia*, speaking of the effects upon the population, says that the greatest consternation prevails. The people, being under the impression that they are being systematically poisoned, have broken into and destroyed and burnt the apothecaries' shops, and have made the general confusion a cloak for open pillage of the corn stores. In Catania the people regard the disinfectants employed by the authorities as extending the epidemic, and consider that all the medicines recommended are poisonous. This feeling has become so prevalent that at Granmichele two soldiers have been brutally murdered by the mob, who believe that the deaths are due to a system of wholesale poisoning adopted by the Government, and that the military are the agents of destruction. While such a singular panic reigns it is not surprising that *L'Italia* should have such a dreadful return to publish daily. One of the latest items of news shows terrible mortality from cholera :—" Palermo, Thursday.—107 deaths."

THE QUEEN'S VISIT TO NETLEY.

The sympathy which her Majesty has always felt for the sick of her army, as well as her interest in the Army Medical Department, has been shown by repeated visits to the Royal Victoria Hospital at Netley. In fact, the Queen seldom comes to Osborne without finding time to go over to Netley. On Thursday last, she signified her intention of visiting the Hospital, but was prevented by stress of weather. On Friday, however, the day was beautiful and calm, and in the afternoon two royal yachts, one carrying the standard, were seen steaming out of Cowes. Her Majesty landed at the new pier, and was received by the Commandant, General Wilbraham, C.B.; the Inspector-General, Dr. Muir, C.B.; the Professors of the Army Medical School, and all the officers of the establishment. She was accompanied by Princess Louise and Prince Alfred, and attended by several ladies and gentlemen. The Queen looked remarkably well (she certainly bears little trace of the ill-health attributed to her), her manner was animated, her complexion clear and healthy, and she seemed in excellent spirits. She was extremely courteous, and, as in her former visits, evidently took the most heartfelt interest in the sick men; she spent a long time in the wards, speaking to many of the men and having their cases briefly explained to her by Professor Longmore, C.B., and Dr. Fyffe, who was acting for Professor Maclean. Several very curious and interesting cases were mentioned to her, and her kind and sympathetic manner in speaking to the men, and in expressing hopes for their recovery, was evidently much felt by them. She also paid a long visit to the quarters of the married people, which on a former visit she had noticed to be not quite so good as she desired, and she appeared gratified to find how good the accommodation for the women now is. After being nearly two hours in the Hospital, she drove to see the Crimean monument, and then left for Osborne, leaving every one happy to see her looking so well, and gratified at her consideration for and courtesy to all.

MORTALITY OF LIVERPOOL.

Dr. Trench's Report on the Health of Liverpool during the first six months of the present year tells the gratifying story of a decrease of 2825 deaths as compared with the corresponding period of 1866, and of 1141 deaths as compared with the corrected averages of the last ten years. The death-rate during the half-year was equal to 29·5 per 1000 per annum of the estimated present population of the borough. Zymotic diseases show a reduction of 1713 by comparison with the corresponding six months of last year, and this diminution is chiefly noticeable in typhus, diarrhœa, and small-pox—diseases which are more or less amenable to the influence of sanitary regulations. Measles have gradually declined in prevalence and fatality since May and June, 1866, and during the last half-year they occasioned 260 fewer deaths than during the corresponding period of 1866. The mortality from scarlatina still continues largely in excess of the corrected average; it accounts for 4·4 per cent. of the deaths from all causes, and for 24 per cent. of the deaths from zymotic disease. The epidemic of hooping-cough appears to be abating, but it still accounts for nearly 19 per cent. of the zymotic deaths. Of the total deaths in the borough, 44·4 per cent. were of children below five years of age, an undue proportion to which the prevalence of the three diseases we have just particularised largely contributes. The most satisfactory feature of the half-year's mortality returns is the cessation of the virulence of the typhus epidemic which has prevailed in the borough so widely and fatally ever since 1861. Dr. Trench considers that typhus is now confined to what may be considered its normal limits, although it still accounts for 4 per cent. of the deaths from all causes. During the last three months, Liverpool has been more healthy than either Manchester, Newcastle-on-Tyne, Edinburgh, Glasgow, or Dublin.

THE SERPENT'S TOOTH IN MODERN PHYSIC.

Many a modern truth lies hid under an ancient myth, and we seem now able to understand the meaning of the mystic serpents that attended upon Æsculapius. For lo! modern Physicians have found that the serpent's tooth is the best vehicle of potent medicines. To drop metaphor, a fine syringe holding exactly five drops of liquid, and having a nozzle with the sharpest possible point, so as to penetrate the skin easily, and with a piston so arranged that a given measure of any liquid contained in the syringe can be injected into the loose tissue beneath the skin, is now the favourite instrument for administering certain medicine. The patient who is racked by sciatica, cancer, or some other painful disease, instead of having a *haustus horâ somni sumendus*, is pricked at bed-time by this modern serpent's tooth, which deposits a drop or two of solution of morphia under the skin. The patient very soon feels himself under the soothing influence of the drug; in fact, comparing the serpent's tooth syringe with the apothecary's *haustus*, there is no doubt but that morphia, given by subcutaneous injection, acts more speedily and forcibly, and that its effects last longer. Next to morphia, quinine is the remedy most used in this way, and is more successful in the treatment of ague than when swallowed in the usual way. A smaller quantity suffices; and it must be borne in mind that this and other drugs may often be easily injected when the patient cannot or will not swallow it, or when the stomach cannot keep it down. Atropine, in smallest doses, is a remedy of promise for neuralgia. Whether a series of tonics, purgatives, and other remedies may be found which can be advantageously used in this way, must be matter for future experiment; but the results with morphia alone justify every Practitioner in adding a fine subcutaneous syringe to his list of instruments. The solution should be quite clear and neutral; the syringe, sharp as the serpent's tooth, should be thrust horizontally into a pinched-up fold of skin; and, for the first experiment, one-third only should be injected of the usual dose as administered by mouth—say two minims of a solution of four grains of acetate of morphia to the drachm. We must also say, that if morphia disagree with any patient, it will do so with double intensity if injected, and likewise that large doses have been known to produce awkward symptoms, indicating sudden paralysis or great enfeeblement of the heart. The Committee of the Royal Medico-Chirurgical Society appointed to investigate this matter, declare that "in their numerous experiments no symptoms have arisen which would lead them to conclude that the drugs subcutaneously injected had been thrown into a vein." On the contrary, it

is only on this supposition that certain exceptional and alarming consequences can be explained. We must say, in simple justice, that the modern practice of subcutaneous injection of morphia was originated by Mr. Charles Hunter, whose papers may be found in the *Medical Times and Gazette* for 1859; and that the injection of quinine was first recorded by Dr. M'Craith, of Smyrna, in the *Medical Times and Gazette* for 1862, as the invention of Dr. Chasseau, of the Hôpital St. Antonio in that city. Dr. Chasseau's first motive was economy, and he found that one grain injected was worth twenty grains swallowed, in checking the onset of malarious fever.

FROM ABROAD.—A LETTER OF TROUSSEAU—SURGICAL INSTRUMENTS FROM POMPEII—PLUGGING THE NARES IN OPERATIONS ON THE FACE.

THE French journals have just published an interesting letter addressed by Trousseau to a provincial Medical friend. It may not be generally known that the Professor originally commenced life as an advocate, an avocation in which his brilliant eloquence would have enabled him to attain a success equal to that which he achieved in our own Profession. He always also entertained a great passion for the pursuit of letters, the following of which would probably not have conduced to his success, either in the Profession he abandoned, or that which he pursued.

"Dear Confrère,—I have perused, in the *Union Médicale*, your very curious article on spontaneous generation, and especially what you have written on Lucretius, and great was the pleasure afforded me. Happy man, still to be able to occupy yourself with literature! I, who loved it so, who lived, as it were, with the ancients, have become reduced to the absurd part of a consultation machine. If I did not rise very early, so as to be able, before going to the Hospital, to devote an hour and a half to work, and if, in the evening, I did not make it a duty never to go into society, I should fall into an intellectual caducity, from which, thank God, you have been able to preserve yourself. Continue, then, to give us these specimens of good, old, great things. It will make you all the happier, we shall have learned something, and the Medical body will be proud in counting you among its lettered men, so numerous in times gone by, so rare at the present period."

In a recent introductory lecture delivered at the Collége de France, M. Daremberg gave an interesting account of a Medical visit he had paid to the Museo Borbonico at Naples, the repository of the treasures discovered at Pompeii and Herculaneum. One is seized with astonishment, he says, on inspecting the Surgical instruments, to observe their exact similitude with some of those discovered and patented in our own times. The number of instruments exhibited still remains considerable, notwithstanding the spoliations which the Museum has been exposed to. It amounts to about 300, but many of these are mere repetitions of the same instrument—of forceps, for example, there are forty examples of the same pattern. But as not more than a third part of Pompeii has been yet explored, and as the present Government has devoted sufficient funds under an efficient director, there can be little doubt that further methodical explorations will add to the Surgical arsenal. The explorations at Herculaneum have been abandoned as impracticable.

Among the instruments found are those having for their object the evacuation of fluids, and among these (1) is a very curious catheter or sound, S-shaped, with a double curve. Not only the shape, but the dimensions of the instrument are extraordinary, for it measures 27 centimetres in length and has a uniform diameter of 7 millimetres. Its curvature corresponds to a circle with a radius of 9 centimetres, or more than double that proposed by Civiale for the male catheter. Thus in size and shape this instrument differs entirely from those now in use; but it must be remembered what erroneous ideas prevailed until even quite recent times concerning the dimensions of the urinary passage. But the most puzzling thing about this catheter is its S-shape, similar instruments not being mentioned by the older writers. Celsus, who describes the ordinary catheter, makes no mention of it. Galen informs us that in retention of urine he employed the S-shaped catheter, but its use seems to have been gradually discontinued again, until revived by J. L. Petit, who has been regarded as its inventor. This catheter with a double curve came after him much into vogue, being considered of especial advantage when it was desired to retain an instrument in the bladder. After the invention of gum-elastic catheters it ceased to be employed. 2. Another instrument seems to have been employed to evacuate the fluid from the peritoneum after paracentesis, consisting of a canula armed with a shield. 3. A third instrument has given rise to differences of opinion, for while M. Scoutteten considers it a trocar, M. Daremberg regards it as a kind of syringe, capable of both injecting and drawing off fluid. In fact, the ancients did not make use of a trocar for puncturing, but divided the tissues either by the bistoury or actual cautery. 4. A bronze conical cylinder, shaped at its extremity like the present uterine sounds, was probably used either for vaginal injections or as a protective sheath during the application of the actual cautery.

M. Scoutteten has recently also presented the French Academy of Medicine with photographs of all the instruments found at Pompeii. We would suggest to the authorities of the Medico-Chirurgical Society to put themselves in communication with that gentleman, and we have no doubt they would secure copies for their collection of photographs.

M. Verneuil read at the Academy of Medicine last week a paper on the means of diminishing the amount of hæmorrhage which takes place during operations on the face, tongue, jaws, nasal fossæ, etc. The great obstruction and embarrassment such bleeding produces often cause the Surgeon to hasten the steps of the operation too much, while the blood may induce suffocative paroxysms of coughing or vomiting, and other derangements of the digestive organs. The prevention of the flow of blood by operating while the patient is in the sitting posture has its inconveniences, for it is fatiguing to the patient and inconvenient to the operator, favours the occurrence of syncope, and prevents the induction of complete anæsthesia. The plan M. Verneuil has found best suited to cope with the difficulty is to plug the posterior nares as a preliminary step, so as to prevent the flow of blood backwards, and in the more complicated operations to attack the deeper-seated parts last. He relates five of his cases as examples of the benefit attendant upon the procedure, and terminates with these conclusions:—1. Hitherto reserved for the arrest of severe hæmorrhage, posterior plugging should be resorted to as a preliminary procedure. 2. It renders signal service in bloody operations practised on the nose, the interior of the nasal fossæ, the maxillary sinus, the higher parts of the superior maxilla—in all cases, in one word, in which there is danger of blood being introduced into the pharynx. 3. It absolutely prevents this introduction as long as the vault of the palate is not meddled with; and even when it is necessary to interfere with this it should be employed during the first stage of the operation. 4. Complete anæsthesia may be kept up during all the operation. 5. Such anæsthesia is highly favorable to the patient, not only by saving him from the pain, but also because in suppressing the causes of sudden congestion of the face it diminishes the flow of blood from the surface of the wound. 6. Wherever possible the plugging should be performed before the administration of the chloroform, because the co-operation of the patient is useful. 7. Before proceeding to the operation we should assure ourselves that the occlusion of the posterior nares is complete, and as soon as the bleeding ceases from the wound after the operation the plug should be removed.

WE regret to hear of the death by cholera, at Peshawur, of Dr. J. Macintire, of the Indian Medical Service, Deputy-Inspector-General of Hospitals, Peshawur circle.

PARLIAMENTARY.—THE FACTORY ACTS EXTENSION BILL—LUNATIC ASYLUMS (IRELAND)—THE REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL—THE CONTAGIOUS DISEASES (ANIMALS) BILL—COMMUTATION OF CAPITAL PUNISHMENT—CASE OF JAMES SCOTT.

In the House of Lords, on Friday, August 9, the Factory Acts Extension Bill was read a second time.

In the House of Commons,

Mr. Blake asked the Chief Secretary for Ireland whether the regulation which he lately stated would be introduced into the Privy Council rules relative to Lunatic Asylums, giving a preference for the office of Medical superintendent to persons who had made themselves practically acquainted with the moral and Medical treatment of insanity, would take immediate effect; and whether such rule would define that the candidate must produce a certificate of having attended for a certain time at an institution for the treatment of the insane; and whether, with a view of having such persons thoroughly qualified to take charge of patients afflicted with insanity, he would take into consideration the desirability of taking steps to give effect to the recommendation of the Commissioners appointed to inquire into the state of the Lunatic Asylums in Ireland with regard to "clinical instruction," contained in their report, pages 17 and 18.

Lord Naas repeated the statement which he had made on a former occasion, that he thought it very desirable to obtain, if possible, the services, as Medical superintendents of Lunatic Asylums, of persons who had devoted a considerable portion of their time and attention to the subject of mental disease. But it was very difficult to lay down any general rule on the subject. As regarded the second question, there was greater difficulty attendant upon giving such instruction as that suggested in Lunatic Asylums than in any other Hospital. The matter, however, was well worthy of attention, and he would see what could be done.

On Monday, August 12,

Mr. Powell asked the Vice-President of the Committee of Council on Education whether he was prepared to explain the reason of the delay in the publication of the report of the Medical officer of the Privy Council, and also when the said report would be laid upon the table of the House.

Lord R. Montagu said the report referred to was put into the hands of the printer at the beginning of April; it consisted of upwards of 600 pages, and contained a number of geological and other maps, the production of which had caused the delay. He expected, however, that the report would be in the Library on Saturday next, and would be delivered to hon. members on the following Monday or Tuesday.

The House went into committee on the Contagious Diseases (Animals) Bill.

On Tuesday, August 13, in the House of Lords, the Factory Acts Extension Bill was read a third time and passed.

In the House of Commons,

Mr. Hardy, in answer to Mr. Newdegate, explained that in commuting the capital sentence passed at the last Warwick Assizes on James Scott, for wilful murder, he had acted entirely on the recommendation of the judge.

On Wednesday, in the House of Commons, the remaining clauses of the Contagious Diseases (Animals) Bill were passed through Committee, and the Bill was read a third time and passed.

THE GERMAN MEDICAL CONGRESS.—The forty-first meeting of German Naturalists and Physicians, which could not be held at Frankfort last year on account of political affairs, is to take place this year in that city, the meetings commencing on the 18th and terminating on the 24th of September. All inquiries are to be directed to Dr. Spiess, Frankfort-on-Main.

THE INTERNATIONAL STATISTICAL CONGRESS AT FLORENCE.—This important body is to hold its sixth meeting this year at Florence, commencing on September 19. The Italian Minister of Agriculture, Industry, and Commerce has issued a circular to all the prefects of the kingdom, calling on them to draw public attention to the importance of worthily responding to the honour conferred by the visit, hoping that the country will show that while Italy was the first to introduce the experimental method into the field of the natural sciences, she will not be the last in the cultivation of those statistical studies which fulfil the same office for the social sciences.

REPORT OF THE

THIRTY-FIFTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

HELD IN DUBLIN, AUGUST 6, 1867, AND FOLLOWING DAYS.

(*From our Special Correspondent.*)

In my former letter (pp. 154 *et seq.*) I gave an account of the first day's proceedings of the very interesting and important meeting which has just been brought to a close in the Irish metropolis. That the meeting has proved to be important, cannot be doubted; in the accession of numbers, and consequently of strength and moral influence, which it has brought to the Association, it must mark an era in the history of the latter. It is important as having drawn together in closer union, in friendly intercourse, and in all the amenities and courtesies of life, the Profession in the three great departments of the United Kingdom. It is important as having brought face to face men hitherto known to one another only by name and character, and in having made a large body of the cultivators of Medical science in Great Britain practically acquainted with the splendid institutions of the sister Isle, and with the treasures accumulated in her schools and museums by the labours and investigations of her sons. It is important, too, in the fact that the value of the Association has now been publicly recognised by the three sister Universities of Oxford, Cambridge, and Dublin.

I have already stated that the second general meeting was held on Wednesday morning, the 7th instant, in the Examination Hall of Trinity College. The chair was taken by the President, Dr. Stokes.

Mr. WATKIN WILLIAMS, the Secretary, read a special report from the Council, which recommended that the place of meeting of the Association for 1868 should be Oxford, and that Professor Acland, F.R.S., be President of the Association for that year. The report embodied a resolution passed at a meeting of the Medical Profession held at Oxford on June 21, inviting the Association thither, and also a communication from the Vice-Chancellor of the University promising to afford all possible facilities for the meeting.

Dr. SIBSON moved that the invitation to Oxford be accepted, and that Professor Acland be President elect.

Sir DOMINIC CORRIGAN seconded the resolution, which was put and carried.

Dr. ACLAND having thanked the Association for the honour done him,

Sir DOMINIC CORRIGAN, Bart., then delivered the

ADDRESS ON MEDICINE.

He said:—Mr. President and Gentlemen, the President of this great Association has already welcomed you to Ireland. Let me, feebly perhaps, but with all my heart, echo that welcome on this the first occasion of our meeting. My next duty is to thank you for the distinction you have conferred upon myself in requesting me to deliver the address of this day—a distinction that would be a high one were it conferred by my own college, high if conferred by the Profession of my own country, but that now comes to me as a triple honour when presented to me by the Profession of the United Kingdom. And among the bonds that unite the three divisions of our kingdom together there are none stronger than those of our Profession, soaring in its exercise above all sectarian discords. We know no difference of race, or creed, or colour, for every man is our neighbour; and when we remember that the Redeemer, while on earth, chose the healing of the sick as one of the most impressive evidences of His divine mission, we must ever hold in respect the exercise of a Profession that devotes its efforts to the same object. Inscribed on the walls of our old, and I hope soon to see it in our new, College hall, still stands the motto to remind us of this—

ΠΑΡ' ΤΥΧΙΣΤΟΥ ΕΣΤΙΝ ΙΑΣΙΣ.

Perhaps the greatest, truest, and most convincing tribute that can be paid to the worth of the Profession of Medicine is, that, when members of our Profession have spent a long life in its exercise, when on their death-beds, when the past is as a dream, the present a flitting moment, the future an awful eternity, they have thought that the best use they could make of their wealth was to leave it to Hospitals and schools of Medicine, where the Profession they had so long followed would continue to be taught and to be practised. In our own city we have only to look around us to see examples of this.

Having referred to the statement of the objects contemplated by the British Medical Association in the address of Dr. Burrows (now President of the Medical Council) in 1862—viz., "the advancement of Medical science and the elevation of the social position of the Profession"—Sir Dominic Corrigan said he had chosen the latter of these as the subject of his present address, and proceeded—The social position of the Profession, and the estimation with which its members are to be regarded by the well-informed of society with whom they are associated, depend on the good general education and Professional skill evinced by them. These can only be secured for the good of the public by such legislation as will prevent the entrance into it of the ignorant and incompetent; and hence good legislation becomes inseparably connected with the position of our Profession and a most important question for our consideration. To some points in forthcoming legislation I shall now take the liberty of asking your attention. I am greatly strengthened in taking this line by the observations of our President yesterday, in his opening address, received by you with acclamation, when, with that emphatic philosophic earnestness peculiarly his own, he declared his conviction that the general education of the young men going into our Profession should not be inferior to that of the kindred professions—the church and the bar. It is now almost to a day nine years since the Medical Act received the Royal assent, and I cannot say—and I believe many will unite with me in thinking—that the results have been such as to satisfy us either as to the education or protection of the Profession. Has the standard of general education been raised? I fear the answer must be in the negative. For a period varying from one to two hundred years, or more, their respective foundations, the University of Dublin, the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall of Ireland, required a knowledge of Greek as a necessary part of the examination of candidates for their respective degrees or licences. And I think there is not a man who knows anything of the nature of our studies that will not say Greek should be a component in the education of every member of our Profession. Yet one of the first acts of the Medical Council under the Medical Act was to declare that a knowledge of Greek was not necessary, and it was only after a long contest I succeeded, as a compromise, in getting a resolution passed that it should be required after 1869. In the proceedings of the Council of this year it has been further resolved that botany be also excluded from the list of subjects for examination. It is idle to say that this only refers to a minimum of education; a minimum thus put forward is a sufficiency, and will be regarded as such by students and licensing bodies. The tendency thus appears to be to bring down education to a lower level, not to raise it to a higher. The preliminary education, moreover, of our students in general education, instead of being revised by any one responsible body, is left almost to chance, for no less than eighteen bodies have the power of examining in arts and science students going to the Medical Profession, and giving certificates, some in the United Kingdom, some in Tasmania, and some in Canada. I think it must be self-evident to every practical mind that such a system can never be depended on to insure an adequate preliminary education. The several licensing bodies have no means whatever of knowing how those preliminary examinations have been conducted, nor often even the subject of examination. They may change from year to year. Indeed, it was only after some time it was discovered that some of the bodies whose certificates of preliminary examination were recognised, did not make Latin a necessary part of the examination. It is stated in report of committee in minutes of General Medical Council of June 5, 1867, "that the visitors of examination give in most cases a satisfactory report of the manner in which the examinations in general education are conducted." But if we look at the report from the Navy Board to the Council of the examination of candidates for direct commissions, we find such observations as these on the education. Opposite the number of one candidate is this observation—"Utterly failed in preliminary examination." Opposite the number of another—"Failed in classical examination, declined to attempt to translate, and failed to write a prescription." Nor must these be viewed as isolated instances. Each candidate rejected for ignorance represents a group of others equally ignorant and incompetent who have passed some of our licensing bodies, are now on the registry as "duly qualified Practitioners," and probably in possession of appointments through the country, bringing on themselves and the Profession the contempt of all well-educated persons with whom they are brought into relation in social life, and practising Medicine to the hazard and probably the loss of human lives. The course which has been adopted of deputing to other bodies far asunder and irresponsible the examination of young men destined for our Profession is a great anomaly. The Horse Guards and Admiralty do not recognise certificates of education from other bodies. They know what they want, and they have their own examinations to test it. The civil service examines for itself, but any examination by almost any one, and anywhere, is to be deemed sufficient for us. I have before me the rules of "The Society of the Attorneys and Solicitors of Ireland" of last year, 1866, incorporated by Royal charter, and signed by the names of men whose judgment must command respect—the Right Hon. F. Blackburne, the Right Hon. Chief Justice Monahan, and the Right Hon. Baron Pigot. To enter the profession of a solicitor it is necessary that before commencing his professional studies the candidate, unless he has graduated in arts in Oxford, Cambridge, Dublin, Durham, London University, or the Queen's University in Ireland, shall pass an examination in Latin, an examination in history, in arithmetic, in book-keeping, in geography, in English composition and dictation, and, after November, 1867, that logic be added to the above courses; and the examination alone is recognised that is conducted by one examining body, the president and vice-presidents and members of council, with a special examiner appointed by the council. There is no entrusting here to peripatetic and irresponsible bodies scattered over the world the examination of young men going to the profession of solicitor. Can we hesitate for a moment in coming to the conclusion that for students entering the study of Medicine there should be one uniform and sufficient preliminary examination, and that such examination should be under the control of a central authority in each division of the United Kingdom, defining what is wanted, and what the examination should be? We began with nine, we have now arrived at eighteen, including the reception of certificates from Canada to Tasmania. The list is increasing yearly, and the greater the number, necessarily the lower the standard. The Navy Board examines for itself. The Civil Service examines for itself. The several universities examine for themselves. There is no parallel instance that I know of similar to our system of taking certificates from almost every body, and the fruit is seen in the lamentable results shown forth in the army and navy returns of rejections, where we find candidates rejected for ignorance of the simplest branches of preliminary education. It appears to me to be worse than useless to proceed still in this way. It is evident that under the present system young men get into our Profession who could not pass an examination for the place of a letter-carrier. What is to be done to remedy this sad state of things? Two courses occur to me—one would be to require that every young man before he gets his degree should have passed through a university course in arts. This, I fear, would be found impracticable, however desirable. The other is, that in each division of the United Kingdom there should be a board of examiners, and that all young men, except those going through a course of arts or science in a university, should be obliged to have undergone an examination in general education before such board either before the commencement of Professional education or within the first two years of Medical study. This second plan would, I believe, be practicable. The principles on which I have ventured to deal with the subject of general education and examination apply similarly to the other great division—that of Professional education. The same evils exist. We have in the United Kingdom 19 licensing bodies conferring no less than 30 separate licences and 53 titles. The result is necessarily a downward tendency in competition. Wherever there is a great number of universities or licensing bodies the competition must be downwards. It is notorious that students know as well in regard to their diplomas as buyers do in regard to other articles of purchase, where they will get what they want on the easiest terms. They go there and become the possessors of what they want—diplomas—it matters not good or bad articles, for the legal brand, in the form of a registry, declares under Act of Parliament that all are equal. The sad state of ignorance engendered by this downward competition has obliged the army and naval authorities to examine for themselves; for they cannot place reliance on the diplomas of our numerous licensing bodies, and could not, on the faith of diplomas issued by them, entrust to their holders the lives of our soldiers and sailors. It appears to me that if our system be

not altered, the civil authorities of the country must ignore all our licensing bodies, and, like the army and navy authorities, institute an examination for themselves. I should deeply regret to see this, but to this, I fear, it must come unless we bestir ourselves. The General Medical Council has seen the evils I have pointed out, and has attempted to deal with them in two ways, both, I fear, ineffectual—the one is, by issuing "recommendations," or, as they are sometimes erroneously called, "regulations" as to education and examination; the other by "visitations of examinations." I will glance briefly at both. "Recommendations," as they are termed, are useless. No one can be tried or punished for disregarding a "recommendation." A recommendation is merely an expression of approval; it is not an "order" or "regulation." The issuing of "recommendations" being thus a failure, another step has been taken which is called "The Visitation of Examinations," both preliminary and Professional, undertaken in order to insure that examinations are sufficiently strict. The visitation of preliminary examinations is simply impossible, as the "preliminary examinations" may be held at uncertain times and in all parts of the United Kingdom, and through our colonies, from America to Australia; and the visitation is supposed to be an efficient supervision over nineteen licensing bodies in the United Kingdom, thirty different diplomas, and fifty-three titles. Believing that such visitation would be only a screen to conceal defects, and not an exposure of them, I felt myself constrained from the outset not to take any part in them. I will not trespass on you here with my reasons. I think it is only necessary on the present occasion to observe that visitations of examinations cannot command confidence from the radical defect that the several licensing corporations, through their representatives, report upon one another. Twenty-four members, for that is the number of the General Medical Council, either representing or intimately connected with nineteen licensing bodies, admit that these nineteen licensing bodies are not what they ought to be—that they stand in need of inspection, and they proceed to carry it out. How? By inspecting one another. A inspects B's establishment, and B inspects A's, and thus round the whole twenty-four letters of the alphabet; and then they report upon one another reciprocally, as a distinguished member of the Council and of this Association has well observed, with a general interchange of courtesies. What would be thought of a report from twenty-four members of the House of Commons inspecting and reporting to themselves on the suspected purity of one another's constituents? For not taking a part in this inspection I have been denounced by a portion of the press, and in another place as an obstructor to the progress of Professional improvement. There are two kinds of obstructors—one who obstructs a good measure, and another who obstructs a bad measure. But there is a third kind of "obstructor" to progress worse than either of the other two—he who pretends to be ardent in progress, but has at heart no desire for it. There is an incident related in one of our popular sea stories of the mate of a cutter who imposed upon the simple-minded of his crew by showing a great press of sail aloft and loud trumpeting on deck, calling on all about him to admire how he carried on to forward the good ship on her way; but all the time he cunningly trailed a sail along under the quarter, so as that the good ship could make no way. I believe we have among the most vehement supporters of visitations of examinations such obstructives to deal with, seeming to carry on, but secretly taking care that no progress is made, for their object is that we should remain stationary. Visitation of examinations is the sail under the lee. We must not let ourselves be blinded to admit, when a new Medical Bill is before the House, that the present system can ever be made efficient. In the amended Bill that has been put forward by the Council there is one clause that I make no apology for bringing under your urgent attention. It is that the General Medical Council shall have power to admit, without examination, to the registry, and thus make eligible for all appointments in the United Kingdom, the holders of foreign diplomas equally with our own graduates and licentiates, on satisfactory evidence being had before it that those degrees or licences had been granted after a sufficient course of study and examination. The proposed clause will be found in the minutes of the General Medical Council of June 5 of this year. I hope the whole Profession will seriously consider this proposed clause, and unite with me in resisting it, not merely for their own sake, but for the public good. It is notorious that both in Germany and in America there are Universities that sell their diplomas just as they sell beer or Indian corn to all who can afford to pay for them. Most of my hearers have probably seen the manifesto of the University of Erlangen, in which they stigmatise the statement I made to this effect in the Council as "void of foundation in all its particulars," and my reply, both published in the *Journal* of this Association of July 20. In that reply I adduced instances of four German Universities in which I showed proof by documentary evidence that they conferred degrees *in absentia*, and that so low were they held in estimation in their own country that the diplomas did not enable the holders to practise there. I have received other evidence since. A gentleman connected with the Medical and literary press of London has placed a document in my hands in which he certifies that an American agent called on him this present year with diplomas duly signed and sealed by one of the American colleges nine or ten years old, that he could have a supply fifteen years old if required, and that he had a variety in stock, price £20, and would allow a discount off, as it was a matter of business. This gentleman is quite ready at any time to verify the memorandum and to give his name. I have within the last week received letters from two members of the Profession, one of them a president of one of our Branch Associations, in which he encloses to me a communication from an agent in Glasgow, and I am sorry to say an M.D. of one of our Universities, in reply to a communication for the purchase of a foreign diploma. The letter is so characteristic that I shall make no apology for reading it at length:—"Ewing-place, Glasgow, July 24, 1867.—Dear Sir,—After having had the pleasure of your note of the 6th instant, I write you in direct course. I stated in terms of my said letter that no University but that of the State of Pennsylvania gave degrees of 'Medical Doctor *in absentia*,' the cost being £32 12s., and in full of all demands and delivered free. I also stated in terms of my said note that the University of Giessen, of Hesse Darmstadt, gave degrees of M.D. for £22 paid there, and £15 10s. sterling paid here, and also in full of all demands. In either case I will cheerfully assist you or your friend in obtaining the object in view. As I have four new degrees to get at Pennsylvania next week, and other four at Giessen also, please send me £32 12s. for the Pennsylvania degree, or £15 10s. in part for the Giessen degree, and I will send all the requisites to you in course.—I am, my dear sir, truly yours, ———, M.D." To give this epistle due dignity there is inscribed on the envelope "On her Majesty's service." It is scarcely necessary to observe that I have in my possession the documents and the names. It is further to be observed with regard to some of the German Universities that the same University gives two kinds of degrees—one on a *viva voce* examination, the other *in absentia*. This is abuse enough, but there is another ingenious subdivision of the *viva voce* examination. To any one of honest intelligence the phrase *viva voce* examination would convey that the candidate presented himself at the seat of the University, and was examined there by its authorities. Not at all, for in one of the documents in my hands the applicant, residing within this kingdom, was referred for the *viva voce* examination—to whom do you suppose?—to one of their own graduates, in the neighbourhood of the applicant; and the applicant was informed that on passing such *viva voce* examination and payment of £32 he was to have the degree. It seems to me most inexplicable inconsistency on the part of the General Medical Council to institute visitations of examination over our own Universities and Colleges of Physicians, and yet to propose to dispense with them in the case of the foreign Universities, merely requiring evidence to be had before them as to the course of study and examination required. Converted into plain words, it is this—We will not be content with any evidence or any statement from the Universities of the United Kingdom or from our own Universities; we will not rely upon those who vouch for you, nor trust your own statement; we will judge for ourselves—we will visit you, and sit by at your examinations; but, turning to the German Universities, the Council say—We will not put you in the same category as the Universities of our own country, of Great Britain and Ireland; we can rely upon the testimonials you forward to us; we can believe what you say, and we will place your degrees on our registry without visiting your examinations. One of the most extraordinary arguments I ever heard in support of admitting foreign diplomas without examination was the introduction of the principles of free trade into debate. The argument was, that by thus freely admitting such foreign degrees there would be at length reciprocity, and these foreign States would admit ours; and thus, by our generous example, there would be an interchange

of degrees, as there is of all the other commodities of trade, between States. It seems strange to me that the advocates of this extraordinary proposition do not propose what would have been a simpler mode of extending to our Profession the principles of free trade—viz., by abolishing all restrictions whatever, all degrees and licences, all education and examination, until at last, as Mr. Gladstone, in his celebrated free-trade speech at Paris, said of custom-houses, all Universities and Colleges would be only remembered as things of the past. As to procuring evidence before recognition that such and such foreign Universities had abandoned their evil ways, and instituted sufficient courses of study and examination, there would never be any difficulty in procuring such evidence. We all know that testimonials can be had as plentiful as blackberries for anything, from a South Sea bubble to Solomon's spectacles. Even if we had the most satisfactory assurances that there would not be an abuse this year, we could have no sufficient guarantee that it would not occur next year. Let foreign diplomas be once put on our register under sanction of law as proposed, and they could never be removed, so great would be the legal difficulties in the way. I believe I am not wrong in saying that the holder of a foreign diploma from a University once recognised could apply for a mandamus, obliging the Council to show cause for such removal, and as neither foreign universities nor holders of their diplomas would voluntarily criminate themselves, and as a foreign university could not be brought into a court of law in this country, the General Medical Council would be powerless. Another argument I have heard advanced in favour of the admission of foreign diplomas is, that there was a power to place foreign diplomas on the register in the Act of 1858, and that the new claim was only continuing such a power. I cannot think this argument of any value. The power in the first Medical Act of 1858, to admit such diplomas, was merely an act of grace. In accordance with the spirit and wording of every new regulating act, its restriction should not have a retrospective action. For instance, in the Apothecaries' Act of Ireland in 1791, of England in 1815, in the Charters of the College of Surgeons of Ireland, 1794, and, I believe, also in England in 1800, it was provided that persons practising as recognised Apothecaries or Surgeons, at the passing of the respective acts or charters, should be legally recognised in the new Act. In like manner, in the Medical Charities Act of Ireland it was provided that all persons holding dispensaries in Ireland at the time of the passing of the Act, though not possessing any Professional qualification whatever, should be recognised as "duly qualified," and placed on the register. But this power or right ceased, very properly, within one year after the passing of the Act, and such persons could not now be registered or recognised as qualified to hold appointments. A similar power was given under the Medical Act of 1858, to protect the rights of holders of foreign diplomas then resident and practising; but it never was the intention in this Act, any more than in the previous ones I have named, to continue such recognition. The protection was a mere act of grace in all the cases, and the very introduction of it with limitation was in itself proof that it never was intended to introduce it anew. The French law is a very fair one, and it was on it I modelled my amendment of June 5 of this year, with regard to the admission of foreign diplomas at the last meeting of Council. It was to this effect—That the holder of a foreign diploma desirous of being placed on the register should be entitled on such diploma to present himself for examination to some one of our licensing bodies, and, on passing its examination and obtaining its diploma, to have his name placed on the register. It was urged against this that all the licensing bodies might enter into a conspiracy, like a trades' union, to deny him an examination, and I therefore, although I thought the objection groundless, introduced an addition that in the event of licensing bodies refusing him an examination it would then be lawful for the General Medical Council to exercise their discretion in registering him. This is the present law in France; it is liberal towards men educated in foreign countries, while it protects the people from ignorant Practitioners. The Faculty of Medicine in France says to every foreign Physician desirous of practising there, "We cannot enter into the merits of foreign universities, their shortcomings, or their sufficiencies. We will not, however, subject you, the holder of a foreign diploma, to undergo the four years of education we require from our own students, but we will require evidence that you may be trusted equally with our own Physicians and Surgeons with the care of life, and the only evidence we can rely upon is examination, and that you must undergo." If we in the United Kingdom go beyond this, we shall let loose upon the public ignorance and imposition. It has been said that Government desired to have foreign diplomas recognised without examination, and that they would not take up the proposed amended Bill without such a clause being sent up from the Medical Council with its approval. In this country, however, the Government of to-day may not be the Government of to-morrow, and therefore the opinion of one Government may not be the opinion of another; but whatever party might be in power, I cannot think that any Government, or any Secretary of State, when made aware of the true nature of foreign diplomas, of the facts I have adduced to-day, would support the proposition of admitting foreign diplomas without examination; but were it otherwise, I believe it would be better to have no amended Bill at all than a Bill with such a clause. I would go further and say better for the public to have the Medical Act of 1858 rescinded altogether and the registering abolished, leaving it as before to the public to judge for themselves of qualifications, than have those foreign diplomas legally placed beside our own. But under any circumstances let us not be parties to treat as trifles the lives of our fellow-creatures. Let not ours be the hands to fix the stamp of genuine gold on German silver or American greenbacks, and I am sure that in so acting we shall have the support of all well-educated Germans and Americans. Much is talked of amending clause 40 of the present Act, so as to give greater protection to the rights of qualified Practitioners. But of what use would such protection be if, while we make that clause more stringent on one hand, we open on the other a wider door for the entrance of the purchasers of foreign diplomas? I have dwelt thus long on the proposed admission of foreign diplomas because I think the question of vital importance, and equally concerning the public and ourselves. I now come to another point which I consider of great importance in the introduction of an amended Bill, and that is the constitution of the General Medical Council itself, and I think it argues much for the supineness or the good nature of the Profession in the United Kingdom that they have borne with its present constitution so long. I believe we all recognise this principle in our constitution, that there should be no taxation without representation. But who pays the taxation that supports the Council? You do, the whole Profession that I see around me. The bodies that send their representatives to the General Council pay not one shilling towards it. By whom are the Council elected? Not by you; not one of the whole Council is your member. The Council are no more representatives of the Profession than would the members of the House of Commons be representatives of the people if they were elected by the several corporations throughout the kingdom. If members of the House of Commons were elected in Dublin, London, and Edinburgh by the respective lord mayors and corporations, they would surely not be representatives of these cities or of the people. The members of the General Medical Council, with the exception of a very small proportion nominated by the Crown, are the representatives of Medical corporations, but not of the Profession. These corporations keep the toll-gates through which candidates are to pass, but, except on some very rare occasions, take no further interest in the Profession. In the Queen's University Convocation the graduates who have taken out degrees and are engaged in the battle of life in their several professions, are entitled to elect one-fourth of the whole number on the Senate or governing body. In the London University the convocation elects half the senate, for on every second vacancy it sends forward three names out of which the Crown cannot travel. Such members are of the greatest importance, for they bring to the Senate, or governing body, the best of all knowledge, a knowledge of what has been done, of what is still required, and yet remains to be done. It is bringing into the Senate the practical experience of the graduates from every phase of life. However estimable may be the members sent up by Medical corporations as at present, however willing they are to do all in their power, they do not draw their knowledge from a sufficiently wide field. There can be no difficulty in introducing this element of representation. The voting papers as used at present in university elections furnish the means. The registry gives the name and addresses of those entitled to vote, just as the calendar of a university gives its list of voters, and thus the members of the Profession in England, Scotland and Ireland could each, without difficulty, elect the number of representatives allotted

to each, and those representatives of the Profession, in direct communication with the whole working body of the Profession, would bring into the General Medical Council a stock and a kind of information the Council cannot command under its present constitution. I have long thought of this alteration in the construction of the Council, and it is because long thinking has strengthened the conviction of its necessity in my mind that I have taken this opportunity of bringing it before you. I heard it said here yesterday in debate that if additional members were given to the General Medical Council the number on the Council and the expense would be too great. As to the expense, I think that should be borne by the parties who send the representatives. Let the Crown and the corporations pay for theirs. You now pay for all. As to the numbers I quite concur in the view that the number is already too great; but instead of all members of the Branch Councils being also members of the General Council, let the General Council be constituted of delegates from the Branch Councils or faculties in universities; send delegates to constitute a central board, and the number will then be not half its present amount. I would rather not have any legislation for some time than have the patchwork legislation that has been going on. We have already had five acts passed since 1858. We are tiring the House of Commons. Let us not go forward again with another patchwork bill, but with a broad and well-considered measure. How this is to be done is the next question. Two ways present themselves. One is, that a draft of an amended bill should be drawn up, as on former occasions, and that every corporation or university, every general and branch association should press its own amendments during its progress through the House. I am not in favour of this. It was thus the present Medical Act was passed, in such a shape that one of our most learned judges has declared in open court that it must have been drawn up by some one who knew nothing of law, and neither judge nor lawyer could understand it. Votes of members would be obtained in support of this clause or that, not on its own merits, but on the influence brought to bear upon members, and members themselves might support or reject an amendment, influenced by partial representation or even by considerations of support to be obtained at some coming election. We should

"Meet again,
In thunder, lightning, and in rain;"

again stand round the cauldron with

"Double, double, toil and trouble."

Another way, and I am in favour of it, is, that a Royal Commission should issue to report upon the present state of the law in regard to Medical education and qualification, and that legislation should be founded on its report. I should much prefer a Royal Commission, consisting of members of the Medical Profession and of men of scientific acquirements, to a select committee of the House of Commons; for the members of a Royal Commission would almost certainly be persons possessed of knowledge out of the Profession, and they would have the assistance of some members of the Profession as members of it; while members of the House of Commons, appointed on a select committee, might probably possess very little, if any, knowledge whatever on the subject. However, either might answer; and the advantage of the previous step would be that we should be able to know and to consider fully the various views put forward previously to the introduction of a bill. Were such a commission or committee appointed, its labours would be light and short if each corporate body or association, or several together should they agree, would lay their views in form of a document before the committee, which would then, like a brief, furnish the text for the examination of witnesses in support or against the views put forward. As far as I have yet been able to bestow attention on the details, the changes I should like to see effected would be these. 1st. That the General Medical Council should be altered, so far as to allow a certain proportion of its members to be representatives from the members of the Profession resident in England, in Scotland, and Ireland, each division of the United Kingdom furnishing its proportion to the Council as at present. 2nd. That this Central Council would perform all duties as at present, and be a court of appeal from the Branch Council. 3rd. That the Central Council should have power to lay down, subject to the approbation of the Secretary of State, a code of regulations both as to preliminary and Professional examination; and that all graduates and holders of licences or degrees from our several corporate bodies, should be subject to such examination before being permitted to hold any public appointment, supported wholly or in part by public grant. I would exempt, as the regulations of the attorneys and solicitors do, graduates in arts of Universities from the preliminary examination, and I would not give the Central Council any power to lay down any code of education. I would leave to the several licensing bodies, as at present, full privilege to suit education to the circumstances of each division of the kingdom. 4th. That the Branch Councils should appoint a board of examination for each division of the kingdom, and give to each candidate who passed a certificate to that effect. This would extend to the public and to the sick poor of our country the same protection against ignorance and incompetency that is at present afforded to our soldiers by the regulations of the army and navy authorities. Its effect on our licensing bodies would be beneficial. There would then be a competition among them, not, as at present, to lower the standard of education and examination in order to sell their diplomas the more freely, but a competition among them to raise their standard, so that candidates who would afterwards have to undergo the test examination would seek the body that by affording high education and examination insured to its graduates or licentiates the best security for passing that examination. The good effects I should hope to see from such a plan as I have sketched would be—First, the advantage to the public of having well-educated Practitioners for the Medical care of all classes, poor and rich; second, the advantage to the Profession itself, by the exclusion of ignorant and incompetent persons, who now, entering into competition for public appointments with the well-informed, lower the scale of remuneration for all. Such persons would henceforward find their level in other pursuits requiring less education and less knowledge. I am not wedded to details. I see that the present state of the law is injurious to the Profession and to the public. I give you the thoughts that have arisen in my mind after some years of close attention to the working of the present laws. My views may be wrong in some particulars, or in all, but I shall be well satisfied if the observations I have made here to-day awaken your attention to the subject, for then out of it will rise a light to guide our way. For mainly to you and our own Irish association (soon, I hope, to be one) I look for the intelligence and the energy to construct and carry a Bill that will be a benefit both to the public and the Profession. The interests of both are, and ought ever to be, identical.

Professor Acland moved—"That the cordial thanks of this meeting be given to Sir Dominic Corrigan for his able and valuable address." He was sure they all felt that that address was of great value both to the Profession and the public. Sir Dominic Corrigan had most graphically brought under the notice of the Council the difficulties under which they laboured in discharging their duties towards the public and the Profession in the matter of Medical education, and also the difficulty of combining at once solid advantages to the Profession and solid benefits to the public, for whom they ministered, in the form of a technical Medical Act. The address would be perused by the Profession and the public with great interest and satisfaction, and Sir Dominic Corrigan well deserved their warmest thanks for delivering it.

Sir James Simpson, Edinburgh, seconded the motion with great pleasure. He had never listened to an address which was characterised by more tact, and energy, and eloquence than that of Sir Dominic Corrigan's. Still he should say that while he agreed with most, he did not agree with all that Sir Dominic had laid down. He (Sir J. Simpson) belonged to a university that was looking up, instead of looking down, as Sir Dominic had put it. Even before the Medical Act passed the examination there was good, and since then in many parts of Scotland the examinations had been gradually, he might say enormously, increasing. The University of Edinburgh the other day passed ninety-two graduates. How long were they examined? Each was examined for a time that altogether amounted to fifty hours. Sir Dominic Corrigan had laid down a number of rules for examination. Well, there were twenty-five members of the Council, and he would suggest that they should first pass the examination to see if they would like it. (Laughter.) He ventured to say that if the full examination was carried out strictly, there would be twenty-four empty chairs round the President. (Laughter.) Even Sir Dominic himself would scarcely pass in botany. (Renewed laughter.) Passing from that, he begged to say that he had listened with great pleasure to Sir Dominic Corrigan's able and valuable address, and that he felt much gratified in being allowed to second the resolution.

The PRESIDENT then put the resolution, and it was carried unanimously.

Sir DOMINIC CORRIGAN said that he rose merely to state that he would say nothing, for he could not in the emergency of the moment express the depth of his feeling at the great compliment paid to him.

The SECRETARY announced that the business of the sections would then be proceeded with in the Museum Buildings. He also stated that the great brewery of Sir Benjamin Guinness would be open to the inspection of the members.

SECTION A—MEDICINE.

A paper was read by Dr. HENRY BENNETT on the subject of "Pulmonary Consumption," in which he treated of causes that led to this disease, and of the course of treatment usually adopted.

An interesting discussion followed, in which several members took part.

SECTION C—SURGERY.

Mr. PORTER took the chair, in the absence of Dr. Adams.

Mr. MAURICE COLLIS, M.B., secretary.

Sir HENRY THOMPSON read a paper, entitled "Considerations suggested by the study of one hundred cases of Calculus," recently operated on by him.

Dr. C. FLEMING read a paper on a remarkable tumour.

Mr. SOUTHAM read a paper on three cases of fracture of calculi.

A discussion was taken on the three papers together, after which the section adjourned until four o'clock.

SECTION D—MIDWIFERY.

At the meeting of this section Dr. BEATTY presided.

Dr. KIDD acted as Secretary.

Dr. BEATTY, as President, delivered an address, in which he gave an interesting historical sketch of the Dublin Lying-in Hospitals. He expressed a cordial welcome on behalf of the Profession in Dublin to their distinguished and numerous friends from the sister country who had honoured them by their presence. He hoped that the British Medical Association would have no reason to regret that the meeting of 1867 was held in the metropolis of Ireland. It would, perhaps, be interesting to those present to make some allusion to the different Medical institutions in the city. The Rotundo Lying-in Hospital was an institution of which it would be affectation to say they were not proud. The chief Physician of that institution holds his office for seven years, and it fortunately happened that the place was occupied at present by Dr. Denham, who combined sound practical knowledge and consummate skill with kindness and courtesy. That Hospital was founded by Dr. Mosse, who was poor in worldly wealth, but rich in benevolence and energy. A most interesting biographical sketch of him is given by Sir W. Wilde in the November number of the *Dublin Medical Journal* for 1846. On June 4, 1751, the first stone of the Rotundo Hospital was laid. On that day Dr. Mosse had scarcely £500; and, although he knew the Hospital would cost £20,000, he never despaired of seeing it finished. By means of balls, concerts, lotteries, plays, etc., he contrived to obtain money from time to time, but he was overwhelmed with debt. In his difficulties he applied to the Irish House of Commons. That body granted £12,000 towards the building, and the Hospital was opened on December 8, 1757. Dr. Mosse was first master, but he died on February 19, 1759, worn out by his exertions for this noble institution. "If the College of Physicians might," as was said by Sir W. Wilde, "justly glory in such a man as Sir Patrick Dun, the Surgeons had no less reason to be proud of Dr. Mosse." They had in this city another valuable institution, the Coombe Lying-in Hospital, also founded by a Medical man, the late Richard Gregory. About the year 1818 he saw that the large south-west district of the city, including the "Liberties," was totally unprovided with such an Hospital. He took the old building and fitted it up, and conducted it with great ability until his death. It was now under the patronage of three eminent Physicians—Dr. Sawyer, Dr. Ringland, and Dr. Kidd.

THIRD GENERAL MEETING.

Dr. STOKES occupied the chair.

Dr. PHILLIPS, in the absence of Dr. Ransom, read the following report of the Committee "On the Observation and Registration of Disease:"—

"At the last meeting of the Association held at Chester on August 10, 1866, the sanction of the members was given to the general scheme put forth by this Committee for the periodical registration of all cases of disease coming under the care of Medical officers connected with public, charitable, or Poor-law Union Medical institutions. It was further agreed, at the same meeting, that, in order to secure uniformity of registration, the Council of the Association should be requested to furnish the necessary forms of return, and a list of diseases suitable for special registration was agreed upon. A specimen schedule for the use of contributors to these returns has now been proposed by the direction of the Council, and copies have been forwarded to each member of the Association, and to other gentlemen interested in the subject, by whom registration of disease had already been carried on in different towns. We are happy to be able to report that Dr. Whitmore, of St. Marylebone, the Sanitary Association of Manchester and Salford, and Dr. Alfred Hill, of Birmingham, have already consented to use the forms of return adopted by the Association; and Dr. Philipson, of Newcastle-on-Tyne, expresses his expectation that it will eventually be employed in collecting the returns which have for some time been obtained by the Northumberland and Durham Medical Society. The Committee desire to call the attention of the Association to a proposal made by Dr. Farr in the last report of the Registrar-General, for the appointment of a registration Medical officer in each superintendent registrar's district. The appointment of this officer would greatly improve the existing machinery for mortuary registration. His chief duties would be to verify the fact of death, identify the person of the deceased, to register still-births, and in certain cases to investigate and record the cause of death. He would also be available as a Medical witness or assessor, and might act as a Medical Officer of Health in certain districts. The Committee consider that such an officer would not only greatly promote the correct registration of deaths and improve other public Medical services, but that he would also be the suitable authority for collecting and publishing the returns of disease obtained by local associations; and, in order to facilitate this arrangement, they propose that the districts for the registration of disease shall be based upon those for the registration of births, deaths, and marriages. The Committee trust that the British Medical Association will support Dr. Farr in his design, and that steps will be taken by its members to urge its importance upon the Secretary of State. In conclusion, the Committee earnestly desire that voluntary associations may be formed in each district to carry out the scheme adopted by our Association; and they again press upon the Council the desirability of appointing in each branch of the Association honorary registrars for the purpose of obtaining the evidence of members upon practical Medical questions."

Dr. AQUILLA SMITH moved the adoption of the report, which, on being seconded by Dr. Lankester, of Middlesex, was adopted.

Mr. RUMSEY read a paper on State Medicine.

In the evening a very brilliant and agreeable *conversazione* was given by the President of the King and Queen's College of Physicians in the Hall of the College, before the close of which he conferred the Honorary Fellowship of the College on the following gentlemen:—Alexander P. Stewart; John Hughes Bennett; Edward Waters; Randal Wilbraham Falconer; Jacob Augustus Lockhart Clarke, of London; William Orlando Markham, of London; George Thompson Gream, of London; Thomas Spencer Wells, of London; and Professor Giovanni Polli, of Milan.

Dr. STOKES, in conferring the degrees, congratulated the College on the fortunate state of events by which, within a few hours of the bicentenary of the institution, they were entertaining the British Medical Association, which they all so much admired—(hear, hear)—the objects of which were to elevate their common Profession—an association having followed two definite objects—the path of science on the one hand, and the path of love on the other—(hear, hear)—respect and confidence induced by mutual friendship and intercommunication of the members of the Profession. (Applause.) It was, indeed, a matter of enormous pride to him that the College of Physicians had recognised the importance of the visit of the British Medical Association for the first time in Ireland, and in doing so did him the honour of placing him during the year of the intended visit in the Chair of the College. (Applause.) Of all circumstances of his Professional life this had been the most gratifying to him and the most honoured of all. The College was originally commenced during the life of Charles I., but it received its first charter from Charles II., in 1667. They were now, as he had said before, within a few hours of the bi-centenary of the College, and he believed that could not have been better marked than

by the circumstance that within the walls of the College, as at present and recently erected—thanks to the energy of the late President, Sir Dominic Corrigan—they received the members of the British Medical Association. (Hear, hear.) This College, which originally sprung from the University of Dublin, was determined to follow the example of that great seat of learning, which to-day would confer its highest honours on some of the members of the Association. As a child of Trinity College, the College of Physicians was not forgetting its traditions in doing honour to strangers; therefore it was determined to class a certain proportion within the lists of Fellows. This, to him, as temporary head of the College, was a most gratifying circumstance, and he begged to assure them that there was not a single Fellow of that College, or a single Licentiate, numerous though they were, who did not heartily and faithfully participate in the feelings which he had expressed. (Applause.) They were determined on honouring nine of the most distinguished Physicians, and when he said honour, he should have added that it was mutual. It was an honour to receive the degree from the College of Physicians, and it was an honour to the College to have such recipients on its roll. (Applause.) The latter, he should say, was by far the greatest. Those who were to be so honoured were the following:—Professor Hughes Bennett, of Edinburgh—(applause)—one of those men of progress who sought to place Medicine on some secure foundation; Dr. Waters—(applause)—ex-president of the Association. The same principles which had actuated the heads of the Dublin University were adopted here. Both at the same time wished to honour the individual for his scientific merits, and to honour the Association in its general character. They had Dr. Falconer—(applause)—whose contributions to Medicine, as well as those of Dr. Waters, had done so much credit to the British Association. They had Dr. Stewart, of London—(applause)—the zealous worker in the great field of sanitary science, and, he would say, the representative in England of that branch of research that was day after day assuming greater proportions. They had Dr. Markham, of the *British Medical Journal*, whose high tone of feeling had done so much to upraise the Profession. They had two members, who were unavoidably absent, Dr. Gream, of London, and Mr. Spencer Wells; and next they had the celebrated Professor Polli, of Milan—(applause)—a man also remarkable in the progress of Medicine; and, though last not least, that arduous worker in the promotion of physiological pathology, Mr. Jacob L. Clarke—(applause).

The Fellowships were then conferred amid applause.

Dr. H. Bennett briefly returned thanks, and the proceedings terminated.

The fourth general meeting was held on Thursday in the Examination Hall of Trinity College, at ten o'clock. The chair was taken by the President, Dr. Stokes.

ADDRESS ON SURGERY.

Professor Robert William Smith then came forward to deliver his Address on Surgery. He said—Mr. President and gentlemen, when the eye wanders over this vast assembly, collected in this noble hall, what thoughts crowd upon the mind—how the imagination is carried back to remote times. Three hundred years have rolled over, and become engulfed in the fathomless abyss of eternity, since that proud and mighty monarch, whose queenly gaze is fixed upon us, founded this now time-honoured university. What a mighty mass of intellect has it fostered and matured; what a mighty host has it sent forth of men pre-eminent in every department of knowledge—men whose genius has shed an undying lustre upon the place of their education—men whose fervid oratory has been the ornament of the bar, whose burning eloquence has enchanted listening senates—men whose works, marked by poetic elegance of language, by correctness of sentiment, and maturity of judgment, have adorned the age in which they appeared. Upon this auspicious occasion, which should be marked *meliore lapillo*, the eye rests for the first time in the history of the University upon an assembly of the members of our Profession, collected from the three kingdoms, and including representative men, the magnates in every department of Surgery and Medicine. This is, perhaps, a fitting moment to return my warmest thanks to the board for the cordial and honourable reception they have given to the Association, and to the Provost in particular for the desire he has shown to advance the object of the meeting by all means in his power. He has inaugurated his University reign by an act which the Medical Profession in Dublin will ever gratefully remember. It is no easy task to address such an assembly as this in a manner worthy of the occasion, and when I received the invitation of the Council of the British Medical Association to deliver the Address on Surgery on the occasion of this their first visit to Dublin (though deeply sensible of the proffered honour), I felt myself, I confess, somewhat embarrassed. On the one side there was the desire to take a prominent part in the proceedings of a learned assembly of my Profession, and the hope that I might be able to bring forward something of interest; on the other there was the conviction that the delivery of a general address, such as the majority of those heretofore pronounced at the opening meetings of this distinguished Association, was as much beyond the sphere of my ability as it was unsuited to my taste. But having been officially informed that I was at liberty to adopt any course I chose, I no longer felt myself justified in declining to accede to the wishes of the Council, more especially as I felt satisfied that I would have the benefit of an indulgent audience, even though it were found that I possessed neither the pen of a ready writer nor the tongue of a fluent speaker. Perhaps, however, the calm consideration of a subject of practical importance may be found to possess a real scientific value. Before entering, however, upon the more immediate matter of my discourse, I am anxious to allude to a subject which has long been to me a source of regret. I allude to the almost systematic neglect upon the part of the junior members of the Profession of the writings of the Surgeons of the past generation. It is no doubt true that, since they wrote, Surgery has made great advances, both as an art and as a science, though but thirty years have elapsed since a distinguished Surgeon and an accomplished scholar pronounced the severe judgment that Surgery, as a science, might be supposed to be buried in the icy fetters of the Arctic pole—that no noontide beam had thrown its horizontal ray across this frozen region to intimate that the night of days or of weeks may be at an end. But this Cimmerian darkness has passed away. "The stream of knowledge," which, as the eloquent Graves has expressed it, "not many centuries ago shallow and narrow, toiled painfully to wear away or avoid the obstacles that impeded its course, now fed by thousand new sources, flows along deep and rapid, sweeping away every obstruction and defying all human opposition." What was formerly the termination of a science is now but its commencement; what was formerly deemed unattainable is now elementary; so that it is impossible to foresee how far improvements may be carried. A short and transitory existence has been allotted to our bodies; individuals die and generations pass away, but the common intellect of mankind fears not the same fate nor shares the same brief mortality. In modern times Surgery has advanced in some departments with giant strides, and in all its progress has been steady and uniform. Operative Surgery has undergone vast improvements. Ovariotomy has become an established practice. Subperiosteal resection has opened up a new field in the demesne of conservative Surgery. The crushing of the stone has gone far to supersede lithotomy. Pressure has almost supplanted the ligature in the treatment of aneurism. Acupressure has divested hæmorrhage of its terrors. The endoscope, the laryngoscope, the opthalmoscope have each and all shed the brightness of their beams upon the obscurest diseases, and illuminated their darkest depths and their inmost recesses with their lustrous light. The calculus lies exposed—the stricture is patent in the darkest canals. The polypus in vain tries to hide itself in the ventricle of the larynx. The delicate threadworm fruitlessly coils itself in the deepest corner of the eye. But all this affords no justification for the neglect of the writings of our forefathers, so prevalent in the present age. From my long experience as a teacher and as an examiner, I have no hesitation in saying that not one student in fifty—perhaps not one in a hundred—ever reads the classic writings of Pott, of Hey, of Abernethy, Bell, Monro, Dease, Colter, and a crowd of other minds who have stamped their fame upon the pages of the history of Surgery as indelibly as those of Lœmming, of Cotunnus, Fallopius, Eustachius—that glorious band of anatomists—are engraven on the temporal bone, a monument which, *ære perennius*, will last as long as a human being exists on the earth—as long as the world endureth. If the descriptions given by the great men to whom I have alluded were either incorrect or insufficient, I could understand their works being cast aside. But is this so? Has anything been added to our knowledge of Pott's fracture, of Pott's gangrene, of Pott's caries? Do we know anything more of Hey's luxation, of Hey's internal derangement of the knee-joint? I do

not think so. Independently of the valuable information they contain, the works of the authors of the past generation further repay the reader by the correctness of their style, by the terseness and succinctness, and, at the same time, the fulness and clearness of their descriptions. There is no inflated language, no giving to self an undue prominence, no magnifying of trifles, no appropriation of merit that might not be justly claimed. They wrote with a pure object—the advancement of science and the benefit of mankind. There is still another important feature of these works—they are the result of large and long experience. There was no hurrying into print with some ephemeral production—no pushing into authorship in the hope that experience would follow—no premature publication of cases that had not terminated, of operations whose final result was not known. I cannot, therefore, but deeply regret that it has become so little the fashion (especially among students) to study these authors, and it is much to be lamented that the system of private instruction has so completely taken the place of almost every other source of information. It may, perhaps, be thought out of place to make any allusion to students upon such an occasion as this, and before such an assembly; but the members of the Association should recollect that a large proportion of them are lecturers or clinical teachers, and that their influence is considerable in guiding the studies of those entrusted to their care. How truly has it been said that the British clinical teacher occupies a post of heavy responsibility. He is an instrument for enormous good or evil; he exercises an influence without parallel in importance and extent. Were I to carry my hearers back to more remote ages, I think it would be found that the neglect of the works of the ancients was almost universal, and yet they abound in precepts that modern science has failed to set aside. Time would fail me were I to enumerate all the instances of modes of treatment, operations, etc., which are to be found in the works of the ancient authors, and which have of late years been brought under the notice of the Profession, clothed in all the glittering charms of novelty. I shall content myself with one example, and it is a most remarkable one. The arresting of hæmorrhage by acupressure has been described by Johannes de Vigo, a distinguished Surgeon of Genoa, who lived in the seventeenth century. He was a man of great erudition, and divided with Carpi, of Bologna, the merit of being the first to use mercury for the cure of the venereal disease. He says it was the practice of some to tie the veins and arteries, when opened, with a needle and thread. "*Modus autem ligationis: eam aliqui efficiunt, intromittendo acum sub vena, desuper filum stringendo.*" Is not this the third mode of acupressure of Sir James Simpson? This, however, does not in the slightest degree detract from the merit of the distinguished baronet, who, it is obvious, was not aware of the passage I have quoted. Nor does his renown rest on this alone. The man whose genius made use of the anæsthestic properties of chloroform for the annihilation of pain needs nothing more to transmit his name and fame to remote times. He has raised for himself a monument which will endure as long as human pain and human suffering are permitted to exist. The learned Professor then entered upon an elaborate exposition of the obscure and difficult subject of "Disjunction of the Epiphyses," and gave a lucid exposition of the means by which these injuries were to be distinguished from dislocations, and, having concluded this portion of his address, continued as follows:—I cannot terminate this discourse without congratulating the members of the Association upon the success which has distinguished their honourable career. It is not in a scientific point of view merely that the British Medical Association has been a benefit to our Profession. Largely has it aided in removing petty jealousies, in smoothing ruffled feathers, and fostering friendly feelings. It is calculated to make the members of the Profession more cautious in the discharge of their relative duties towards society and one another, and to impress upon them the broadness of the distinction that exists between the path to honourable pre-eminence and the starting into notoriety by means which are unworthy, and which lessen the confidence of the public in all that concerns us. To accomplish these important objects is one of its wise purposes; its members seem to be well aware (to use the words of the eloquent author of the history of the Medical Profession in ancient times) that, "to the initiated, Medicine is something more than a profession. It is a world within itself. It has its history, its politics, its philosophy, its literature, of which the world knows nothing. It has its organisations and institutions, its ranks and grades of honour. It has polemics and dissensions, not always amenable to logic or the learning of the schools. In ethics, in traditions, in superstitions, it is older than the Church. In use before the civil law, it recognises no arbitrary enactments. Nature is its only court of equity." And who amongst us in this vast assembly can forget its everlasting charities, its unnumbered acts of silent and tender mercy, countless as the golden grains of sand? Who can forget its moving scenes of joy and sadness, its many sunny aspects; its benignant, ennobling, and liberalising influences, which few beyond our own circle can properly appreciate, and none so well understand as ourselves? No wonder, then, that the members of our Profession, surrounded and drawn together by such hallowed ties, should be disposed to band together as a brotherhood. Such has always been their course. The Druids of ancient Gaul and Britain, the Asclepiadæ of Greece, the priests of Ancient Rome, the Llamas of Central Asia, the Vaidhyas of India, the fraternities of the middle ages and up to the present time, the countless societies and colleges of our own and other lands devoted to the healing art, are all in proof of this; so that wherever social freedom has existed, when tyranny would permit, internal organisation and development have been the rule of our Profession. And well it is that it is so. We are thereby better enabled to understand our own position, to know how far we have advanced, to whom we owe our progress, the labour that is still before us, and the places we are likely to occupy in the estimation of those who are to follow us. It only remains, sir, to thank my audience for the attention and patience with which they have heard me, and for the interest they have appeared to take in the subject-matter of my discourse, notwithstanding the numbers present who are as familiar with the topics brought before them as I am myself. I thank them, not merely as a polite formality, but sincerely and from my heart. Those familiar with me know that I am not in the habit of speaking one thing and thinking another—"ἐχθρὸς γάρ μοι κεῖνος," etc. The memory of my classic friends in this classic hall will supply the remainder of the quotation. Members of the British Medical Association, for the present I bid you farewell. I take my leave for the present of that noble institution whose founder was, as it were, but yesterday taken away from amongst you, and whose place knoweth him no more at all for ever—an institution, however, the abiding success of which he lived to witness. He placed the texture upon the loom, and he lived to see the well-woven fabric developed into a bright garment—a radiant robe, which soon enveloped in its ample folds the Medical Profession throughout the length and breadth of mighty England; and my hope and trust is, that our children's children—that generations still to come—will behold it with its colours unfaded and its brilliancy untarnished.

Professor Smith resumed his seat amid loud and protracted applause, which increased to cheers.

Professor Syme moved a vote of thanks to Professor Smith for his able, valuable, and most eloquent address. This was seconded by Mr. Bowman and carried by acclamation.

SECTION A—MEDICINE.

Dr. Law presided.

Dr. S. Gordon read a paper on "Cerebro-spinal Fever."

A lengthened discussion followed, in which several members took part, and some valuable information was imparted in reference to the symptoms and treatment of this disease.

SECTION C—SURGERY.

In the Surgical section Mr. George Porter, Vice-President, R.C.S., presided.

Mr. M. Collis, Secretary.

Papers were read by Dr. George Buchanan; Dr. Rawdon Macnamara, on the "Treatment of Aneurism;" Dr. Mapother, and Dr. W. Murray, of Newcastle, on the same subject; and Mr. Lawrence. The paper which excited the most interest was that by Professor Pirrie, of Aberdeen, on the subject of "Acupressure," a means of stopping hemorrhage in operations. The Professor explained the various modes and appliances which he had found suitable for the effectual employment of this process, which he recommended as much superior to the older-fashioned ligature. He stated that he had found it successful in fifty-one operations of the gravest character, such as amputations of the leg, thigh, breast, etc., besides numerous lesser ones.

The discussion on the papers read was taken at the four o'clock p.m. sitting, and was taken part in by a number of

gentlemen, including Sir James Simpson, Dr. Macnamara, Dr. Byrne, Mr. Meade, Dr. Mapother, Dr. Geoghegan, etc.

Dr. Morgan invited Professor Pirrie to give a practical demonstration of acupressure, which would be better than any lecture.

Professor Pirrie said he would be most happy to do so at any time before two o'clock to-day, when he would have to leave town.

It was then arranged that gentlemen should meet Professor Pirrie at the College of Surgeons at seven o'clock next morning for that purpose. The arrangement, however, fell to the ground in consequence of the impossibility of procuring a subject.

At one o'clock an extraordinary meeting of the Senate of the University of Dublin was held in the Examination Hall of Trinity College for the purpose of conferring the honorary degree of M.D. upon the distinguished members of the British Medical Association enumerated in the subjoined list. A large number of Masters and Doctors assembled, in their academicals, in the Library, whence they passed in procession, with the candidate Doctors, to the Examination Hall:—

Acland, Henricus Wentworth, Soc. Regiæ Soc., Med. Prof. Reg. Univ. Oxon. Bowman, Gulielmus, Societatis Regiæ Vice-Præses. Paget, Georgius E., Lector Linacriensis in Med. Univ. Cantab. Rumsey, Henricus Wildbore. Sibson, Franciscus. Simpson, Jacobus Y., Baronettus. Syme, Jacobus, Chirurgiæ Professor Ediensis. Teale, Thomas Pridgin, Soc. Regiæ Socius.

The Right Hon. Judge Keatinge, as Pro-Vice-Chancellor, presided.

Dr. Stokes, in introducing Dr. Acland, said: Right Hon. Pro-Chancellor and Members of the Senate, I have to present to you Dr. Henry Wentworth Acland, Regius Professor of Medicine in the University of Oxford, Fellow of the Royal Society and many other learned bodies, and a gentleman who has done great things for the Profession by his genius. It is to his deeds that we owe the great establishment for the cultivation of the physical sciences in Oxford, and in a great measure the introduction of those physical sciences into the arts course in general at that great seat of learning.

In introducing Mr. Bowman Dr. Stokes said that the name of that gentleman had been long known in the annals of science as that of a great physiologist. He was also a member of the Royal Society, and a gentleman of excellent parts, admirable tastes, and unspotted character.

Dr. Paget, Professor of Medicine in the University of Cambridge, was next introduced to the Senate by Dr. Stokes, who said that Dr. Paget's contributions to Medical science entitled him to the gratitude and respect of all who cultivated or loved learning.

Mr. H. W. Rumsey was next called.

Dr. Stokes said that Mr. Rumsey had for many years devoted all his spare time to the furthering of the cause of state Medicine, a subject which was assuming very great importance now throughout the civilised world, and more especially in England. His writings had received the highest attention, and were considered by his own Profession, and the profession of the law, as likely to lead to the best possible results.

Dr. Stokes next introduced Dr. Francis Sibson, of London, who was, he said, a graduate of Medicine in the London University. He was the President of the Council of the British Medical Association, which that University had done so much to honour. As he was President of the Council of that Association, it was hardly necessary for him (Dr. Stokes) to say another word in his behalf. He was a member of many bodies who were employed by the Government in all matters connected with sanitary science, and he had been lately Secretary of the Committee for Promoting Uniformity in Medical Nomenclature, which would greatly subserve the cause of the public registration of deaths and the general health of the country.

Sir J. Y. Simpson on coming forward was received with great applause.

Dr. Stokes said the name of Sir J. Y. Simpson was so well known, that he should abstain from making any observations respecting him. He presented him as one of the greatest benefactors of suffering humanity. Dr. Stokes said he had then to introduce Professor Syme, of the ancient University of Edinburgh, and in doing so he would only borrow the words of one of their own Professors, which were uttered a short time ago in that Hall, that "he was a gentleman to whom it might be attributed that he bore the sceptre of Surgery in Edinburgh."

Dr. Stokes said he had next to present to the Pro-Chancellor and to the University, Mr. Teale, whose writings had obtained for him a world-wide reputation in the healing art. Mr. Teale might safely be said to be one of the most leading Surgeons in England, and he might add to that, one of the leading Surgeons in the world.

At the close of the proceedings the newly made Doctors, with the other Doctors and Masters present, adjourned to the Fellows' common room for refreshments.

The fifth general meeting was held in the Examination Hall at 3 o'clock, the President, Dr. Stokes, in the chair.

Professor Hughes Bennett, M.D., read a paper on the subject of "The Effects of Mercury." He stated that in an address delivered last year at Chester he urged upon the Association the propriety of doing something in its collective capacity towards solving one or more of those doubtful points in practical Medicine connected with the action of medicine in the treatment of disease. A sum of £25 was granted for this purpose, and a committee appointed under his direction, and they decided upon investigating the action of mercury in animals. Experiments were made on dogs, cats, and birds, to arrive at some data on the subject. Dr. Bennett summed up the result in a statement that previous to the committee meeting in November last no exact information had been obtained as to the influence of mercury on the action of bile, or any other action it may exercise on the liver. The committee felt great difficulty in procuring dogs for experiments, despite advertisements in the newspapers and every effort made by the committee. Seventeen dogs, however, were got, and operations were performed on twelve. Two dogs died under experiments, and upon one it was found impossible to operate. Dr. Hughes then detailed the operation performed on the dog, the mode in which the mercury was introduced, and the means taken to collect the bile at regular intervals, together with a series of minute observations on the results obtained. It was found that mercury did not produce the slightest effect on the urine of a dog, but in reference to the bile the experiments had not progressed sufficiently to allow any conclusion to be derived from the experiments, and further researches were needed before the important question of the influence exercised on biliary and urinary secretions can be answered. The task in hand was a most difficult and unpleasant one—involving the procuring of dogs, the operating on them, the dressing of their sores, and feeding and caring for them. He urged the importance of determining the inquiry satisfactorily, and called upon the members of the Association to give their practical support by subscribing liberally towards carrying on the experiments.

Dr. Waters (ex-president), Dr. Sibson, Dr. Markham, Dr. M'Dowell, Dr. M'Swiney, and the President, concurred in the expediency and importance of the experiments so graphically narrated by Professor Bennett being carried out.

After some discussion, it was unanimously agreed, on the motion of Dr. Markham, that the Council be empowered to raise a fund, in addition to the subscriptions entered into for the purpose of carrying on the experiments alluded to by Dr. Bennett.

SECTIONAL BUSINESS.

The Association was engaged during portions of the day in the disposal of the sectional business. The papers, which were all on important matters—Medicine, Surgery, Physiology, &c., were read in the new building.

Physiology.—Dr. Paton read an interesting paper entitled "Researches on the Action of the Heart," in which he endeavoured to show that the principle which regulates the movement of the heart is the same in all classes of animals, cold or hot-blooded. As some other papers relative to the heart remained to be read, the discussion was postponed.

Professor Jellett exhibited a Saccharometer, his own invention, of which he gave an admirable explanation. A description and illustration of the instrument will be found in our second volume for 1865 (July 22), p. 100.

Dr. Lockhart Clarke read a paper on "The Pathology of Locomotor Ataxy," and Dr. Bateman read one on "The Localisation of the Faculty of Speech." Some extraordinary cases of the sudden loss of speech and the intellectual results that followed were given during the discussion that followed.

Surgery.—Dr. Mapother delivered a fine address on the treatment of aneurism, and the advantage of completely arresting the current through the sac.

At seven in the evening, the members of the Association, with some visitors, among whom were the Vice-Provost of Trinity College, the Rev. Dr. Luby, Senior Fellow, the Rev.

Mr. Mahaffy, Junior Fellow, etc., dined together in the long room at the Exhibition Building. The dinner was by far the largest which has been held since the formation of the Association, about 290 sitting down to a sumptuous banquet. The arrangements were admirable. Notwithstanding the large number to be accommodated, there was no crowding. The attendance was ample. During the evening, the President, Sir James Simpson, Bart., Sir Dominic Corrigan, Bart., Dr. Waters, and others, spoke to the usual toasts. Several well-selected glees were admirably sung at intervals.

Friday, the fourth and last day of the session of the Association, was devoted to sectional business, and to the closing general meeting. The following is an enumeration of the business transacted.

SECTION A—MEDICINE.

DR. LAW, President.

CHOLERA.

Dr. Mapother read a paper entitled "The Topography of Cholera." One object of it was to show the dependence of that disease upon the dampness produced by old streams and pools in Dublin, London, Liverpool, and other cities. He showed several ancient maps of 1610, 1712, 1756, and other dates, to illustrate the condition of the cities referred to. He also adduced evidence to show that the poison of cholera was of cryptogamic origin.

Dr. P. C. Little read a paper entitled "Experience of Cholera during the late Epidemic, with Cases." It detailed the treatment which he had pursued with success. His views were in substance the following:—That the disease is a contagion, probably communicated through the medium of water, air, or food; that its development and diffusion depend upon certain atmospheric, hygrometric, and hygienic conditions; that the chief effects of these conditions are produced upon the sympathetic system, especially those presiding over the gastro-intestinal tract; that these nerves seem powerless to discharge their functions while in contact with the morbid products of the diseased; and that the proper treatment was, therefore, to remove those products and give tone to those nerves. A most useful means for this end he had found to be mustard, which acts as an emetic, a mechanical aperient, and a neurotonic. He recommended alcoholic drink very sparingly, and of a large number of cases he had only one death in his practice.

A long discussion took place upon the two communications, relating to the treatment of cholera. The importance of prevention and of dealing with cholera in its incipient stages was generally admitted. Reference was made by Dr. Tibbits, who held an official sanitary position in Bristol, to the last outbreak of cholera there, when the disease chiefly appeared at a low, ill-drained, and ill-watered village, six or seven miles from it. Dr. Tibbits stated that by the use of sulphate of iron, chloride of lime, and carbolic acid, all contaminating matter was destroyed, and the progress of the epidemic was completely stayed. The speakers in the debate were Dr. Moore, Dr. Hewitt, Dr. Davis, Dr. Wharton, Dr. Martin, of Portlaw; Dr. H. Kennedy, Dr. Protheroe Smith, Dr. Steele, of Liverpool; Dr. Popham, Dr. Day, of Stafford; Dr. R. Byramjee, Assistant-Surgeon, Bombay Army; Dr. Camps, London; Dr. Shinkwin, and Dr. Mapother.

Dr. Jacob then read a paper by Dr. Lory Marsh on "Idiopathic Abscesses of the Brain."

Dr. Popham read a paper on "The Alkaline Treatment of Pneumonia."

FEVER.

At the evening meeting of the section

Dr. GAIRDNER, of Glasgow, made an oral communication on the "Fever Dens of Glasgow." He explained his views with the aid of a map of that city, in which the spots affected by fever were indicated. His opportunities had been obtained in the course of his official sanitary duties. He described a class of ancient houses existing in the old city of Glasgow, which were formerly the abode of wealth and respectability, but which had, since the extension of the city and seaport, sunk into poor tenements, which the landlords would not improve. What he called "fever dens" were certain of these old houses, of several stories high, in which the approach to a number of rooms was by one dark passage, with little light and less ventilation. It had been found that if one case of fever occurred in such tenancies it was sure to be followed by others. The building of this sort of houses, in which bad accommodation was provided for the poor, had been repeated, until of late years it had been checked. They had now in Glasgow an abundance of prophylactic arrangements, such as Hospitals, carriages for the sick, washing-houses for the purification of infected clothing. But they had also had since 1862 a very important law, making it obligatory that there shall be 300 cubic feet of space for each adult, and 150 cubic feet for each child in every house in Glasgow. This was enforced as vigilantly as possible. The authorities of the city also obtained last session an Act to enable them to spend a large sum of money in buying up old house property, with the view of pulling down and reconstructing these fever dens. There was still required, however, a power of preventing landlords from taking additional inmates into houses already infected. He recommended that everything should be done to enlist the sympathies of landlords of house property in any arrangements that were made for its sanitary improvement.

The other papers communicated in this section were by Dr. Joseph Lalor, on Epidemic Fever; Dr. H. Kennedy, on Types of Fever; and Dr. H. Kennedy, on Puerperal Purpuric Fever.

SECTION B—PHYSIOLOGY.

In this section, which was presided over by Dr. Robert MacDonnell, the following papers were read:—

Dr. Lockhart Clarke, on "The Pathology of Locomotor-Ataxy;" Dr. Bateman, on "The Localisation of the Faculty of Speech;" Dr. Sibson, on "Movements, Rhythm, and Sounds of the Heart;" and on "The Cardiograph;" Dr. Hayden, on "The Pathology and Diagnosis of Inorganic Mitral Regurgitant Murmurs;" Dr. Cruise, on "The Endoscope," which was given with experiments in the presence of a large audience.

Dr. MacDonnell exhibited a Microspectroscope. Dr. O'Leary, on "The Thermal Value of Food, and on the Application of Food for Calorifying Purposes and Work Done;" Dr. Cameron, on "The Assimilation of Gelatin;" Mr. Tichbourne, on "The Nature and Examination of the Organic Matter found in Potable Water;" Dr. Z. Johnson, "A Suggestion for the Sanitary Improvement of Towns and Private Dwellings;" and "A Case of Singular Cardiac Derangement."

SECTION C—SURGERY.

Dr. WILLIAM COLLES presided.

The following papers were read:—

Dr. Althaus—"Electrolysis of Tumours."

M. H. Collis, Esq.—"The Treatment of Tumours by Electricity."

Dr. Morell Mackenzie—"On the Use of the Electric Cautery in the Treatment of Laryngeal Growths."

Dr. Hingston (Montreal)—"An Operation for the Relief of Deformity from Disease of the Hip-joint."

Joseph Lister, Esq.—"On the Antiseptic Principle in the Practice of Surgery."

Dr. Kirkpatrick—"On the Treatment of Diseased Bone by Incision and Caustic Potash."

SECTION D—MIDWIFERY.

Dr. BEATTY presided.

The following papers were read:—

Sir J. Simpson, Bart., exhibited a variety of instruments, on which an interesting discussion followed.

Dr. Denham—"The Use of Ergot of Rye."

Dr. Hardy—"On Hysteria treated by Strychnia."

Dr. F. Churchill—"Granular Endometritis."

Dr. Evory Kennedy—"Extra-uterine Fœtation, detected at an Early Period of Gestation."

Dr. J. A. Byrne—"Case of Purpura Hæmorrhagica."

CLOSING GENERAL MEETING.

At five o'clock the closing general meeting of the Association was held in the New Museum Buildings.

The Chair was taken by the President, Dr. Stokes. Votes of thanks were then proposed and carried to "The Writers of Papers," the Provost and Senior Fellows of Trinity College, to the Rev. Dr. Haughton, Medical Registrar of the School of Physic, and to Dr. Tufnell, Dr. Cruise, and Dr. William Stokes, the Honorary Secretaries, and to Professor Stokes, the President.

In the evening a very brilliant and numerously attended *conversazione* was given to the Association by the President and Council of the Royal College of Surgeons. On this occasion the Museum, Library, Board-room, and Albert-hall, were thrown open. Many objects of interest were exhibited by Drs. Barker, Mapother, Fraser, Cruise, and Minchin; Messrs. Richardson, A. Andrews, and L'Estrange. Some

beautiful instruments by Weiss and Son were exhibited by Messrs. Fannin. It was admitted on all hands that this most interesting *réunion* was a suitable termination to the proper business of the most successful meeting the Association has as yet had. Saturday, the 10th inst., was devoted to excursions. A party of sixty-six, under the able guidance of Sir William Wilde, proceeded at an early hour by rail to Navan, thence to the Round Tower of Donaghmore, the great Tumulus of New Grange, the Cave of Dowth, and the site of the Battle of the Boyne, fought in 1690 between King James the Second and King William the Third. All present were delighted with the excursion, with the urbanity of Sir William Wilde, and with his lucid and interesting descriptions of the several objects brought under their notice. The weather was most favourable. A smaller party on the same day visited, under the courteous leadership of Dr. Darby, the Dargle, Waterfall, and other beauties of the County Wicklow. In the evening the members of the Association were received at a *conversazione* given at the Royal Irish Academy by the noble President, Lord Talbot de Malahide, who was unwearying in his attention to his numerous guests. Among the general company, which included ladies, were the Lord Mayor and Lady Mayoress, the Earl of Dunraven, the Lord Bishop of Meath, Sir Robert and Lady Kane, etc., etc.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, August 14.

The disturbances which for some time have been so pertinaciously repeated by the Medical students of Paris have led the Minister of Public Instruction to alter one of the time-honoured institutions of our Faculty. The annual distribution of prizes, which is always accompanied by a certain amount of speechifying, is no longer to take place at the commencement of the session, but at the end. There is to be no longer a *séance de rentrée*, but only a *séance de sortie*. It is hoped that, owing to this arrangement, the more obstreperous party will have left town for the holidays when the affair comes off, and that only the more peaceful and studious part of the community will be present.

The results of the day would seem, on the whole, to have confirmed the Minister's previsions. Not only was the annual disturbance avoided, but the official speech obtained an extraordinary share of applause. It must, however, be premised that the speech was delivered by Professor Béhier, one of the most popular men of the day, and that it was devoted to the *éloge* of Rostan, one of the leading figures of the old Paris school, and one of the most unflinching representatives of its peculiar tenets.

A few political allusions in Professor Béhier's speech met, of course, with an unusual degree of approbation. The two passages, however, which seem principally to have captivated the public were, in the first place, an energetic protestation against the absurdity of war in the present advanced state of European civilisation, and, in the second place, an exposition of the leading doctrines of *organicism*, as expressed in Rostan's principal work. The orator met with signal success in vindicating the opponents of the *vital force* from the accusation of materialism. To deny the vital principle, said Professor Béhier, is not to deny the spiritual nature of the mind.

On the whole, the experiment has been fully satisfactory, and will be no doubt again repeated. But will the authorities of our University be always provided with a popular cause and a popular speaker?

A very mysterious crime, and one which involves an interesting and difficult question of Medical Jurisprudence, has been latterly the theme of nearly all conversation at Paris. The facts of the case may be briefly stated as follows:—

The deceased, who was one of the most elegant members of *anonymous* society, left Paris with her *confidante* on May 8 to enjoy a promenade at Fontainebleau. The two ladies attracted some notice at the hotel where they stayed from the eccentricity of their manners. They breakfasted together at a celebrated restaurant in the forest, left it on foot to commence their excursion, and were never seen together again.

In the course of the afternoon the elderly lady, however, made her appearance *alone* at the hotel, made some inquiries about her companion, whom she pretended to have lost in the wood, paid her bill, and left for Paris by the express train.

Five or six days later, the driver of one of the vehicles which convey tourists to the romantic sites of the forest, espied, in a secluded spot, a lady fast asleep on the ground, her face shaded from the sun by an open parasol, her bonnet and gloves lying in the grass by her side. He paid no attention to the fact at the time; but the next morning, happening to pass along the same road, was considerably astonished to find the same lady still lying fast asleep. On approaching her, he discovered a corpse in a very advanced stage of decomposition.

An inquiry being set on foot, the body was easily identified by the jewels which still adorned it, the *confidante* was arrested, and it was ascertained that immediately after leaving Fontainebleau she had obtained a large sum from a banking-house by forging the signature of the deceased. There seems to be no doubt as to her guilt; but the question which arises at once is, *how was the murder perpetrated?* The victim was a fine and powerful young woman; the culprit is a thin, spare, elderly person, of low stature, and in a very indifferent state of health; and yet she seems to have mastered her victim without a struggle. The posture of the body was perfectly natural, and there were no signs of a conflict; the ground had not been trampled underfoot, as it would undoubtedly have been had there been any attempt at self-defence—in short, the deceased appeared to have passed unconsciously from sleep to death without awaking for a single instant.

Poison, of course, was the first idea which suggested itself, but chemical analysis has been unable to detect it; on the other hand, the state of the lungs and pleura, and a large ecchymosis under the mucous coat which lines the anterior wall of the stomach, led the *experts* to affirm that the victim had died from *strangulation*, the murderer having *knelt* upon the stomach, while compressing the windpipe. Of course, the advanced state of decomposition in which the body was found did not allow those marks of violence to appear, which in similar cases are found about the throat.

Dr. Bergeron, from experiments on dogs, is enabled to affirm that strangulations, when assisted by a strong pressure on the pit of the stomach, will produce death in the space of a few seconds. He is therefore of opinion that the deceased was attacked during her sleep, and was unable to make any resistance.

If the fact is true—although it seems hard of belief—if it is true that persons sleeping can be strangled without even awaking from their sleep, it is to be desired that the intelligence should not get speedily abroad, for it would open to modern Thugs a splendid field for the practice of their art.

GENERAL CORRESPONDENCE.

SPECIAL HOSPITALS AND GENERAL PATIENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The question is worth considering whether the out-patient system at General and Special Hospitals has not attained a degree of development which is injurious to the Profession and to the patients themselves. If I may put the question in other words, are not the out-patient departments at sundry charitable institutions just so many United Joint-stock Companies, got up by the subscribers for the purpose of getting gratuitous Medical attendance and medicine for their servants, their workpeople, and dependants?

In one case I know, a neighbouring gentleman sent a housemaid to the Consumption Hospital as an out-patient for some slight malady—I believe amenorrhœa—but a stouter-looking more buxom wench I never saw. The account she brought home, after five hours' absence, was ludicrous, from the girl's ignorance and misapprehensions. After much and tedious waiting she was called in, and then, to use her own words, was examined by two doctors, who uncovered her neck and tapped her chest, and listened to her heart, and pinched her legs, and asked her all sorts of questions (to her mistress's indignation), including whether she had an easy place, what time she got up in the morning, and whether she had enough to eat. Any Medical reader can see the purport and value of such an examination in the proper case; here it was wasting time and scientific energy on a case that did not require it, and consequently gave rise to misrepresentation and ridicule. Now, I want to ask, is it right that the trivial disorders of maid-servants should be treated at the Consumption Hospital? Would it not be better for the Medical officers, on examining such a case, to refer the patient elsewhere? Is it worth while to send a maidservant to waste hours in an out-patients' room?

Would it not be better and cheaper on all grounds to have let that girl go with 3s. 6d. to the nearest general Practitioner for advice and medicine? Is not the system of giving advice and medicine to all comers a means of starving out and degrading the most numerous class of our Profession, and destructive to the self-reliance and honourable feelings of the patients? But, above all, is it not beds that are wanted, and would not the resources of the institution and the energies of the Physicians be better applied to the relief of really severe indoor cases, if the concourse of out-patients were diminished?

Now for another feature of certain Special Hospitals, which I confess is new to me, and on which the general voice of the Profession ought to be called forth and listened to.

Let me invite your readers' attention to the following handbills, which, as I am informed, are distributed at the institution whose name they bear:—

No. 1.

The Royal Infirmary for Diseases of the Chest,
(INCLUDING AFFECTIONS OF THE HEART & GREAT VESSELS,)
CITY-ROAD.
FOUNDED 1814. REBUILT 1863.
Patron, the Queen.

DIRECTIONS FOR DR. DOBELL'S PATIENTS
(TABLE 1.—CARBO-HYDRATE).

The Diet of every twenty-four hours should include not less than—

6 to 8 ounces of Cooked Meat, Poultry, Game, or Fish,

20 ounces Milk,	8 ounces Potatoes,
10 ounces Bread,	2 ounces Sugar,

and 8 ounces of either of the following Farinaceous Foods, viz.:

Flour,	Tapioca,
Oatmeal,	Indian Corn Flour,
Arrowroot,	Sago,
Rice,	Robinson's Patent Barley,

Liebig's Food for Infants and Invalids.

These should be taken in divided quantities, at intervals of 3 or 4 hours, night and day, if awake.

The drink of twenty-four hours should include

Either—Half a pint of Port, Sherry, or Marsala;
Or—One pint of Burgundy, Claret, or other similar Wine;
Or—One pint of good Ale or Stout;
Or—A Quarter of a pint of Rum, Whiskey, or Brandy, diluted with one pint of water.

In proportion as the power of taking and digesting fat increases, the quantities of Farinaceous Food and of Fermented Liquors may be diminished.

Get as much out-of-door air as possible; but guard carefully against colds, by Wool next the skin, Goloshes, and Respirators.

Take as much exercise out of doors as the strength will bear, *without producing fatigue*, and keep the skin clean and well rubbed.

Never overfatigue or exhaust the body.

Let ten hours, at least, out of every twenty-four be spent in sleep.

Lie down occasionally during the day, especially after walking.

No. 2.

The Royal Infirmary for Diseases of the Chest,
(INCLUDING AFFECTIONS OF THE HEART & GREAT VESSELS,)
CITY ROAD.
FOUNDED 1814. REBUILT 1863.

DIRECTIONS FOR DR. DOBELL'S PATIENTS
(CLASS 10).
B.

The Diet of every twenty-four hours should include not less than—

8 ounces of Cooked Butcher's Meat,
6 ditto Cooked Pigeon or Game,
3 ditto Dried Fish,
1 ounce of Cheese,
3 ditto Vermicelli or Macaroni,
4 ditto Bread or Flour.
6 ditto Rice or Arrowroot,
3 ditto Sugar,
6 ditto Green Vegetables, or fresh Fruits, Cooked.
20 fluid ounces of Milk.

These should be taken in divided quantities, at intervals of 3 or 4 hours, night and day, if awake.

The drink of twenty-four hours should include—

Either—Half a pint (Imperial) of Port, Sherry, or Marsala;
Or—One Pint of Burgundy, Claret, or other similar Wine;
Or—One pint of good Ale or Stout;
Or—A quarter of a pint of Rum, Whiskey, or Brandy, diluted with one pint of water.

In proportion as the power of taking and digesting fat increases, the quantities of Animal Food and of Fermented Liquors may be diminished.

Get as much out of door air as possible; but guard carefully against colds, by Wool next the skin, Goloshes, and Respirators.

Take as much exercise out of doors as the strength will bear, without producing fatigue, and keep the skin clean and well rubbed.

Never over fatigue or exhaust the body.

Let eight hours, at least, out of every twenty-four, be spent in sleep.

Lie down occasionally during the day, especially after walking.

No. 3.

The Royal Infirmary for Diseases of the Chest,
(INCLUDING AFFECTIONS OF THE HEART & GREAT VESSELS,)
CITY-ROAD.
FOUNDED 1814. REBUILT 1863.
Patron, the Queen.

DIRECTIONS FOR DR. DOBELL'S PATIENTS
TABLE III.—FLUID DIET.

Take 8 ounces of Milk and 1 ounce of Arrowroot, Tapioca, or Oatmeal, every four hours (six times in twenty-four hours), for twenty-four hours.

Then take 10 ounces of Milk, and 1 ounce of Arrowroot, Tapioca, or Oatmeal, every four hours, for twenty-four hours.

Then take 12 ounces of Milk, and 1 ounce of Arrowroot, Tapioca, or Oatmeal, every four hours, for twenty-four hours.

Then take 13 ounces of Milk, and 1 ounce of Arrowroot, Tapioca, or Oatmeal, every four hours, for twenty-four hours, and continue this till ordinary solid Food (Meat, Bread, and Potatoes) can be borne easily by the stomach.

Directly after each dose of Milk take a teaspoonful of Pancreatic Emulsion, mixed – smooth, in a wineglassful of Water, with a teaspoonful of Pale Brandy or Rum.

Avoid exercise and keep warm, and sleep as much as possible while living on the Fluid Diet.

No. 4.

THE
NEW REMEDIAL AGENT IN CONSUMPTION.

PANCREATIC EMULSION,
Originated by Dr. DOBELL,
Physician to the Royal Infirmary for Diseases of the Chest,
AND PREPARED ONLY BY
SAVORY AND MOORE,
NEW BOND-STREET.

It having been strongly represented to Messrs. Savory and Moore by Medical men and others that many *Poor Persons* who might be benefitted by the Pancreatic Emulsion are denied its advantages in consequence of its costliness, Messrs.

Savory and Co. beg to inform Clergymen, Medical Men, and other Visitors of the *Sick Poor* that they will be happy to supply the Emulsion at a reduced price to any person producing a certificate from a Clergyman or Medical Man, stating that the case is a deserving one.

Messrs. Savory and Co. are obliged, at the same time, to request that great caution may be exercised in giving such certificates to prevent imposition, for as much loss attends the preparation of the Emulsion, and the process by which it is made to keep is a very costly one, no more than a reasonable profit is afforded to the manufacturer, and they are only enabled to sell it at the price ordinarily charged in consequence of the liberality of Dr. Dobell in giving the remedy freely to the public and refusing to reserve to himself any pecuniary advantage.

What I would notice in these documents is the preponderant notice of the individual Physician. One supposes generally that a patient is a patient *at* or *of* the *institution*, and does not expect to see the name of any one Physician made so prominent. For, one must ask, what a state should we be in if every Physician at every Hospital did the same? I dare say that each of the eminent men who are attached to the Hospitals, general and special, has his own views on diet; but let us suppose out-patients bringing away a different diet table from every Physician, what a happy fling would satirists enjoy at the scientific unity of Professional opinion!

I will not criticise the diet itself that is prescribed, for there surely must be other papers for patients of different ages, sexes, and habit of body, and states of disease; I won't ask where patients are to get the money for such an expensive diet, nor whether it does not seem to be reducing the practice of Physic to a kind of mechanical routine; but I want to put these things on record, and to ask the Profession to take a note of them, and to say whether they are approved and ought to be imitated. I am, &c. Medicus.

ALCOHOL A STIMULANT.

[To the Editor of the Medical Times and Gazette.]

Sir,—Before Dr. Edmunds's question can be properly answered, it is very necessary to clear the ground from all ambiguity. All stimulants are pure stimulants, and *vice versa;* but this does not bring us to the meaning of either phrase. Some say that light is a pure stimulant, but no one compares its influence to that of a goad. Others may with equal propriety speak of pure water being a stimulant to a man dying of thirst, but none liken such a draught to a spur. Again, if things are called by their right names, no one says that either a goad to an ox, a spur to a horse, or a bayonet to the stern of a man is a stimulant. These painful irritants may force an animal to move faster, but they do not in the smallest degree increase his power to go—they only force him to expend more rapidly than he would voluntarily do the motive power which he possesses. It therefore seems to be a contradiction in terms to say that pure stimulus acts like a goad. A stimulus is an agent which increases vitality, or which calls into activity forces which are dormant. Thus, heat and moisture combined are a stimulus to a seed, and water is the same to a dried rotifer. In like manner fire is a stimulus to a locomotive, and by its use the engineer can get more work out of his engine than he can by simply opening his steam valve more fully, which latter operation is equivalent to goading an ox.

A stimulant, then, is a word applied to something which gives a real increase of force in the individual to whom it comes, which augments his power rather than compels him to expend it faster.

In this sense diluted alcohol is a stimulant, for it imparts a fuel which is readily available for the human furnace. The metaphor which compares a man to a locomotive, and his food to its fuel, is a strictly philosophical one.

Now, it ordinarily signifies little to the engine what fuel the fireman uses, provided only that it produces heat enough to generate the proper amount of steam; but if a tremendous "head" of steam is wanted on an emergency, it is clear that the best combustible is one which will burn the fastest and the fiercest. So it is with man; it is a matter of small concern what his food is, so long as it will keep the machine going, but if on an emergency there is an unusual demand for steam (life, or vital force), then the best material is that which is most readily digested (burned). An extra pound of turpentine, resin, or alcohol may enable an engine-driver to outrun from a falling avalanche, and a bottle of wine may enable a "flooding" woman to escape from the jaws of death. For the analogy to be strictly correct, we must presume that the engine and the woman are already taxed to their utmost power. Let us now ask ourselves whether any ingeniously contrived goad would save a woman or man nearly dead from hæmorrhage. I have known such a one whipped with nettles and partly covered with sinapisms. I have known the skin to be rubbed with strong acetic acid, water, and mustard, and all without effect, until some other means augmented the vital powers. Then, and not till then, were the fearful results of the first remedies seen.

Now, if alcohol taken internally operates as mustard does outwardly, it follows that mustard and water are equivalent to wine, and that a diluted sinapism given as a medicine, in fever, is as philosophical a remedy as a mustard plaster to the leg. As yet, however, this discovery has neither been made by theorists nor empirics. We earnestly, however, commend it to all teetotal practitioners. The account here given involves the idea that alcohol is really fuel for the human furnace. Into that vexed question we shall not go further than to give an account of our personal experience. The writer's height is five feet ten inches and a half, his breadth across the shoulders is nineteen inches, and his weight about thirteen stone and a half. He is as active as most men, driving daily ten miles, walking during three hours, and working very hard for about six hours daily at head work. His daily diet, irrespective of fermented liquors, consists of two eggs, three ounces of milk, one third of a pound of cooked meat, one potato, the size of an egg, two ounces of bread, a trifling amount of butter and sugar, and an ounce of cheese—in all somewhere about fifteen ounces per day—very often only twelve, the potato and bread being discarded. Upon such a diet he has lived for many years. Let me ask any one who is a teetotaller whether he can do the same, taking tea, coffee, and water *ad libitum?* If not—seeing that the writer's only other diet is light wine—he must allow that alcohol is food. The author certainly knows that his heaviest mental work is done upon such thin stuff as claret, hock, or moselle, and that a teetotal repast makes him too sleepy for a sustained mental strain. I am, &c. A Hospital Physician.

SUBCUTANEOUS INJECTION OF MORPHIA IN THE SPASM CAUSED BY GALLSTONE.

Letter from Mr. Charles Robert Thompson.

[To the Editor of the Medical Times and Gazette.]

Sir,—In contrast with the "Case of Gallstone treated with Chloroform" reported in last week's number, let me briefly record a case which has just occurred in my practice.

The patient, a stout hearty tradesman, aged 50, of temperate habits and generally good health, has been for three or four years past troubled occasionally (once or twice in the year) with most violent spasmodic pain from gallstone. The attack has, in each instance, been very severe, and accompanied with vomiting and great depression of vital power. On Thursday evening last he sent for me about 10 p.m. He had been suddenly seized about 9 with violent pain at epigastrium, and radiating thence in all directions; had vomited freely, and, with other ingesta, had returned directly two morphia draughts, with which he was always prepared in case of a sudden attack. I found him bathed in perspiration, in intense pain, coming on in paroxysms, which seemed almost unendurable, and during which he writhed and moaned in agony. Pulse only 64, soft, and easily extinguished; drinking water or hot gin-and-water, which he had tried, produced vomiting directly. I injected at once into the back of the upper arm half a grain of morphia in solution. Within a minute or two he had a most violent attack of pain; but it was the last. In ten minutes he found himself comparatively easy, and was able to converse with me; and in twenty minutes after the injection I left him quite composed, and only saying that he felt very sleepy and benumbed. The next morning I learned that he had slept for four hours from the time I left him, and had not felt the slightest return of pain. He complained of the usual effects of morphia—some nausea and faintness—but was at work again in the afternoon.

For subcutaneous injection I dissolve six grains of acetate of morphia in a drachm of acidulated distilled water; then five minims contain half a grain of the salt.

I am, &c.

Westerham, August 12. Charles Robert Thompson.

ARMY COMPETITIVE EXAMINATION.

[To the Editor of the Medical Times and Gazette.]

The Director-General presents his compliments to the Editor of the *Medical Times and Gazette*, and begs to enclose a list of the candidates of her Majesty's British Service who were successful at the competitive examination in February last, and who have passed through a course at the Army Medical School, showing the combined results of the examination.

Army Medical Department, August 9.

Name.	Studied.	No. of marks.
Bredon, R. E.	Dublin	6570
O'Reilly, T.	Dublin	4753
Fairland, E.	London	4620
Murphy, R. P.	Dublin	4370
Townsend, E.	Cork	4238
O'Reilly, J.	Dublin	4060
Wheeler, W. J.	Dublin	3816
O'Flynn, D. J.	Cork	3715
Olden, D. L.	Dublin	3683
Williams, J.	London	3608
Cogan, T. S.	Dublin	3525
Supple, J. F.	Dublin	3478
Parkinson, R. C.	London	3397
Moore, J. H.	Belfast	3293
Irving, G. C.	Dublin	3290
Tolmie, T. C.	Glasgow	3288
Wade, N.	Dublin	3262
Roche, A. W.	Dublin	3240
Purcell, G. C.	Dublin	3163
Croker, J. R.	Dublin	3026
Morgan, J. W.	Dublin	2965
M'Alevy, R. P.	Belfast	2662
Holmes, T. J. R.	Dublin	2574
Kilvry, M.A.	Dublin	2435

OBITUARY.

P. VICTOR BAZIRE, M.D.

Not without a sense of painful bewilderment do we record the sudden death of Dr. P. Victor Bazire. On Sunday morning last, the 11th inst., he was found insensible in his bedroom, and in an hour and somewhat more afterwards he was dead. The event was wholly unexpected, and, as it at first seemed, inexplicable. Dr. Bazire was but thirty-two years of age, of lithe and spare frame, and vigorous health. At no time had there been even the inkling of a symptom to indicate any serious mischief within the head. True, during the fortnight before his death he had complained from time to time of sharp but transitory headache, which he described as neuralgic, and assigned to a temporary and very plausible cause. This headache was never so severe as to cause him to mention it, except in an incidental manner, to his Medical friends, or to interrupt any duty; and the necessary examination of the corpse, while it explained the sad paradox of death intruding suddenly upon a vigorous life, did not show that the headache was its misinterpreted forerunner and forewarner. Far otherwise, indeed, for it disclosed a diseased state, consistent with protracted and undisturbed health and life, but which, as in the case of Dr. Bazire, might at any moment end in a sudden and unavoidable death. It disclosed, indeed, a small dilatation of the basilar artery, which had given way at one point, and poured a mass of blood into the subarachnoid space, and into the reticulations of the pia mater at the base of the brain and upper portion of the spinal cord. Such miserable consolation as is to be found in the fact that the original lesion was undetectable during life, or if detected irremediable, and that rupture necessarily and unavoidably led to death, remains. Science and art alike are helpless in face of such an injury, and foresight and forewarning can have no place.

Dr. Bazire was by birth a Mauritian, by professional education a student of University College, by graduation a Doctor of Medicine of the Universities of London and Paris. His career as a student was exceptionally brilliant, his promise as a Physician equally bright. He had laid an extensive and solid foundation for future fame, and had just commenced slowly to erect the superstructure when he was stricken down. The few literary remains which he has left behind him scattered in different journals, and especially his incomplete translation of Trousseau's Clinical Lectures, exhibit a highly skilled manipulation and elaboration, and gave promise of an accomplished teacher. At the time of his death he was Assistant-Physician to the National Hospital for the Paralysed and Epileptic, and diseases of the nervous system had enlisted his special study. His singularly able papers on paralysis of the diaphragm (*British Medical Journal*, 1867), and a case of disease of a lateral half of the spinal cord (*Lancet*, 1865), as well as his notes to the English edition of Trousseau's Lectures, afford some measure of the loss the Profession sustains by his death.

Excellent in presence, of a manner which cannot well be described by any other word than fascinating, a finished gentleman, an accomplished Physician, Dr. Bazire, by his unexpected death, has left a large legacy of grief to his friends which we should in vain attempt rightly to outline.

MEDICAL NEWS.

University of Aberdeen, 1867.—During the past year, the following candidates, after the usual examinations, have received degrees in Medicine and Surgery:—

The Degree of M.D.—Edwin Burrell, L.R.C.P. Lond., M.R.C.S. London; James Davidson Mackay Coghill, L.R.C.P. Edin., L.F.P.S. Glas., L.M. Edinburgh; Peter Culien, M.R.C.S. and L.M., Bengal; Henry Eales, M.R.C.S.L., R.N., London; Michael Comport Grabham, F.R.C.S., M.R.C.S., Madeira; Wm. Guyer Hunter, M.R.C.S., F.R.C.S. Ed., Grant Medical College, Bombay; Henry William Williams, L.R.C.P. Ed., L.F.P.S. Glas., Northamptonshire.

At the same time—

George Henry Anderson, M.A., M.B., C.M., hon. Med., Middlesbro', York; Stewartson Clark, M.B., C.M., Banff; George Edgelow, M.B., C.M., hon. Med., Guernsey; Alfred Swaine Lethbridge, M.B., C.M., Axminster, Devon; George Mackie, M.B., Insch; George Mair, M.B., Turriff; Douglas Moir, M.B., C.M., Manchester; John Murray, M.B., C.M., Aberdeen; James Mathias Phillips, M.B., C.M., Glamorganshire; George Frederick Wales, M.B., Belfast; Charles James Wills, M.B., C.M., Brighton; James Yates, M.B., C.M., hon. Surg., Oldham;

received promotion to the degree of M.D.

The Degree of M.B.—George Ed. D'Arcy Adams, Bristol; Alfred Henry Anthonisz, Colombo, Ceylon; Henry Child Buckley, M.R.C.S. Lond., Llanelly, Carmarthenshire; James Cameron, Laurencekirk; James Charles Gordon Carmichael, Maryculter; James Allan Coutts, Kincardine O'Neil; John Craigie, M.R.C.S. Lond., L.S.A., Doddington, Kent; James Trigue Crowden, Dorsetshire; Edward Lodewyk Crowther, M.R.C.S., L.R.C.P., L.S.A., etc., Tasmania; George Henry Roque Dabbs, Newport, Isle of Wight; Frederick Adams Dawson, British Guiana; Alexander George Duncan, New Pitsligo, Aberdeenshire; Thomas Birch Dyer, M.R.C.S., L.S.A., L.R.C.P. Ed., London; James Farquhar, Buckie, Banffshire; Alexander Forbes, Aberdeen; Robert Grant, A.M., Tomintoul, Banffshire; John Thomas Hughes, London; Frederick Wm. Jackson, M.R.C.S., Broadstairs; Sydney Johnson, Laxton, Nottinghamshire; Hugh Johnstone, A.M., Savoch, Aberdeenshire; Timothy Lewis, Narberth, South Wales; Charles Maclean, Kiltearn, Ross-shire; Alex. Hunter Mair, A.M., Savoch of Deer; Alexander M'Kinlay, Cheltenmore; John Sturrock Mitchell, Letham, Forfar; George Wm. Mousley, M.R.C.S., L.S.A., Atherstone; Alexander Reid, A.M., Gartly; John Roberts, L.R.C.P., L.S.A., Chester; Augustin Le Rossignol, B. ès Sc., M.R.C.S., Jersey; Arthur Stephen, A.M. St. Cyrus, Kincardineshire; Alfred Claude Taylor, M.R.C.S., Nottingham; Henry Shinglewood Taylor, M.R.C.S., L.R.C.P. Lond., Alton, Hants; Wentworth Raynes Tindale, M.R.C.S., Peckham-rye; Francis Arnold Van Der Smagt, Colombo, Ceylon; Edward Russell Woodford, M.R.C.S., L.S.A., Ventnor, Isle of Wight.

The Degree of C.M.—George D'Arcy Adams, Alfred Henry Anthonisz, Henry Child Buckley, Edwin Burrell, James Cameron, James Charles G. Carmichael, James D. Mackay Coghill, James Allan Coutts, John Craigie, James T. Crowder, Ed. L. Crowther, Peter Culien, George Henry R. Dabbs, Frederick A. Dawson, Alexander G. Duncan, Thomas Birch Dyer, Henry Eales, James Farquhar, James Farquharson, Alexander Forbes, Robert Grant, Sydney Johnson, Hugh Johnstone, Timothy Lewis, Charles Maclean, Alexander Hunter Mair; Alexander M'Arthur; John S. Mitchell, Alexander Reid, John Roberts, Augustin Le Rossignol, Arthur Stephen, Alfred C. Taylor, Henry S. Taylor, Wentworth R. Tindale, Francis A. Van Der Smagt, Henry W. Williams, Edward R. Woodford.

Of the above-mentioned candidates, James Cameron, James Allan Coutts, Hugh Johnstone, Arthur Stephen, and Alfred Claude Taylor, received their degrees in Medicine and Surgery, with highest Academical Honours; James Charles G. Carmichael, Ed. L. Crowther, and Timothy Lewis, received their degrees in Medicine with Academical Honours. And at the late graduation term the following were declared to have passed part of their examinations:—

Theodore R. Brotchie, Robert Catto, John M. Cromhie, Brodie Cruickshank, Alexr. S. Duncan, John S. Gunn, James Hay, David Johnston, Patrick Letters, Wm. Mackintosh, Lachlan Maclean, Farquhar Matheson, Charles M. Matthew, Patrick Mitchell, George Morison, William Muil, Alexr. B. Munro, George Norman, Ed. Payne Philpots, Richd. James Quinnell, John Ruxton, Alfred Sangster, John Jas. Thomson, John Wm. Thomson, David Tulloch, Alexr. Walker, Wm. A. Walker, Albert Williams, Alexander Wilson, Wm. Yeats.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 8, 1867 :—

Arthur Horatio Morrill, Newington-butts; Oliver Penfold, Blackmore-street, W.C.; Thos. Andrew Roberts, Shaftesbury, Dorset; Henry Kirwan King, 159, Camberwell-road; John Wyatt Pratt, Bradford, Yorkshire; Henry Clifford Gill, Bartholomew-road, Kentish-town; Charles Henry Newstead, 25, Bartholomew-close, E.C.; Edward John Adams, Victoria-road, Charlton; James Robert White, Kent County Hospital, Maidstone; John Reuben Lazenby, Long Preston, Yorkshire; Charles Adcock, Stafford-street, Birmingham.

The following gentlemen also, on the same day, passed their First Examination :—

Alfred Herbert Hackney, University College; Henry Gould, Guy's Hospital; John Suck, Guy's Hospital; Samuel Punnett Budd, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DITCHETT, W. E., M.R.C.S.E., has been appointed House-Surgeon to the London Hospital, *vice* Eustace Greenaway, resigned.

LOMAS, W., M.D., has been appointed Physician to the Surrey Dispensary, Great Dover-road.

RANSFORD, J. I., M.R.C.S.E., has been appointed House-Surgeon to the Bridgnorth Infirmary.

BIRTHS.

ARMITAGE.—On August 11, at Noan, near Thurles, co. Tipperary, the wife of T. R. Armitage, M.D., of a son.

BARRY.—On August 6, at Clifden-road, Twickenham, the wife of Fr. D. Barry, of a daughter.

BROWNE.—On August 8, at Kew-green, Surrey, the wife of C. W. Browne, M.R.C.S., of a daughter.

CHALMERS.—On August 10, at Caistor, Lincolnshire, the wife of W. Chalmers, M.D., of a son.

DIPLOCK.—On August 9, at Western House, Oakley-square, the wife of T. B. Diplock, M.D., of a son.

DODGSON.—On August 7, at Cockermouth, Cumberland, the wife of H. Dodgson, M.D., of a daughter.

FINCH.—On August 13, at Stainton Lodge, Blackheath, the wife of R. Finch, M.D., of a son.

GRABHAM.—On August 9, at Pontefract, the wife of C. Grabham, M.B., of a daughter.

MACLAGAN.—On August 12, at 5, Coates-crescent, Edinburgh, the wife of R. C. Maclagan, M.D., of a son.

MURCHISON.—On August 9, at 79, Wimpole-street, Cavendish-square, W., the wife of C. Murchison, M.D., F.R.S., of a son.

MURRAY.—On August 9, at 17, Green-street, Grosvenor-square, the wife of G. C. P. Murray, M.D., of a son.

REID.—On August 7, at Hamilton-place, Pembroke-road, the wife of D. A. Reid, M.D., of a son.

MARRIAGES.

BARTLEET—BERRY.—On August 13, at St. Martin's Church, Birmingham, T. H. Bartleet, M.B., to Louisa Ann, only daughter of S. Berry, Esq., of Edgbaston. No cards.

COLQUHOUN—DYMOND.—On August 6, at the parish church, Stoke, A. G. Colquhoun, Assistant-Surgeon R.N., H.M.S. *Lord Clyde*, to Katie, only daughter of J. G. Dymond, Esq., Victoria-place, Stoke, Devonport. No cards.

HUBERT—SANGER.—On July 31, at Alfriston, Sussex, T. K. Hubert, M.D., of Billingshurst, to Bessie, eldest daughter of T. F. Sanger, Esq., Alfriston.

LAWRENCE—SNEAD.—On August 8, at Llangynider Church, A. G. Lawrence, M.D., of The Cedars, Chepstow, to Edmunditna, elder daughter of the late J. P. Snead, of Pwll Court, J.P. and D.L. for the county of Brecknock.

MILLER—BARNETT.—On August 8, at All Saints, Blackheath, J. N. Miller, M.D., of Blackheath, to Eliza Hennel, only daughter of H. Barnett, Esq., of the same place. No cards.

QUINLAN—CARROLL.—On August 10, at the Church of the Catholic University, Stephen's-green, Dublin, F. J. B. Quinlan, M.D., to Maude Elizabeth Mary Clare, eldest daughter of W. Carroll, Esq., Lord Mayor elect.

DEATHS.

JACKSON, W., M.D., F.R.C.S.E., L.R.C.P., of Penrith, on August 5, aged 75.

MEYMOTT, C., M.R.C.S.E., at Sydney, on June 24, aged 55.

PEARCE, F. D., M.R.C.S.E., at Kingsbridge, Devon, on August 8, aged 57.

PEMBERTON, J. M'L. M.D., Assistant-Surgeon Bengal Medical Service, at Hydrabad, Deccan, on June 30, in his 32nd year.

RUETE.—Professor Ruete, the distinguished oculist, of Leipzic, died recently, aged 57.

WEBER, OTTO.—Otto Weber, the Professor of Surgery at Heidelberg, successor of Chelius, and one of the most scientific of German Surgeons, died recently, at the age of 39, from diphtheritis.

VACANCIES.

CHELSEA AND BROMPTON DISPENSARY.—Physician and Surgeon.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—House-Surgeon and Dispenser.

ST. MARY HOSPITAL, MANCHESTER.—Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Festiniog Union.—Mr. John Jones has resigned the Llanfihangel District; area 17,856; population 2461; salary £40 per annum.

Hursley Union.—Mr. F. J. Sutton has resigned; area 16,200; population 2550; salary £65 per annum for the district, and £12 per annum for the Workhouse.

Sheffield Union.—The Brightside East District is vacant; area 1202; population 12,931; salary £30 per annum.

APPOINTMENTS.

Chippenham Union.—Wm. Henry Colborne, M.D. Lond., F.R.C.S. Eng., to the Sutton Benger District.

Freebridge Lynn Union.—Philip C. Shepheard, M.R.C.S. Eng., L.S.A., to the First South-Eastern District.

Headington Union.—Cornelius F. Stovin, M.D. St. Andrews, L.R.C.P. Edin., L.R.C.S. Edin., L.M. Edin., to the Wheatley District.

Solihull Union.—Wm. A. Parsons, M.R.C.S., to the Tamworth District.

Stockport Union.—Samuel Beecroft, F.R.C.S. and M.R.C.S. Eng., L.S.A., to the Hyde District.

Torrington Union.—Maurice T. West, Surgeon R.N., M.R.C.S. Eng., L.S.A., to the Shebbear District.

Woodbridge Union.—Arthur C. Turner, L.R.C.P. Lond., M.R.C.S. Eng., to the Second District.

CATTLE PLAGUE INQUIRY.—For the week ending August 10, one fresh outbreak has been reported; viz., at Barking, in Essex. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,751, and 56,954 healthy cattle have been slaughtered to prevent the spread of the disease.

COUNT BISMARK'S HAND.—The accident which the Prussian Minister recently sustained does not appear to be serious. The fingers affected are those of the right hand, and the pain which has followed the injury appears to have been both protracted and severe. It is thought, however, that the Count's natural energy will soon tide him over his physical trouble.

POISONED BREAD.—A somewhat serious instance of wholesale poisoning by bread has occurred at Baireuth, says the *Correspondant de Nuremberg*. A baker having dismissed one of his servants, the latter before leaving mixed a quantity of arsenic with the flour. This was of course unnoticed, and so the loaves were in due course sent out charged with the poison. There were no less than sixty cases, but as yet no death has been recorded.

NEW SYDENHAM SOCIETY.—The ninth annual meeting of the members of this Society was held on Thursday, the 8th inst., in the New Buildings, Trinity College, Dublin, Dr. Charlton, of Newcastle-upon-Tyne, in the chair. The report, which was highly favourable, exhibiting the continued and increasing prosperity of the Society, was read and confirmed, as was the statement of the accounts. Lancereau's treatise on Syphilis, the collected works of Jenner, and the collected works of Addison, were announced for early publication. Dr. Stokes was elected President. Dr. Robert Adams, of Dublin, James Paget, Esq., F.R.S., and Sir Henry Thompson were added to the list of Vice-Presidents. The new members of Council are Dr. Charlton, of Newcastle; M. H. Higginbotham, Esq., Nottingham; Dr. Leared, of London; Dr. Alfred Meadows; Dr. W. D. Moore, of Dublin; Dr. E. L. Ormerod, of Brighton; Dr. G. E. Paget, of Cambridge; and E. Pye Smith, Esq., of Hackney. Edward Ray, M.D., was elected auditor, with J. S. Bristowe, M.D., and Peter Gowland, Esq. (re-elected). A vote of thanks was passed to Dr. Charlton for his dignified conduct in the chair, and to the officers of the Society for their exertions during the past year.

MONTHLY RETURN OF THE BIRTHS, DEATHS, AND MARRIAGES REGISTERED IN THE EIGHT PRINCIPAL TOWNS OF SCOTLAND; WITH THE CAUSES OF DEATH AT FOUR PERIODS OF LIFE.—JULY, 1867.—The deaths of 2154 persons were registered during the month, of whom 1072 were males, and 1082 females. This number, also with the like exception of July 1865, was the largest number registered during the same month within the last ten years, and was 171 deaths above the average of the month for the last ten years, allowing for increase of population. The zymotic (epidemic and contagious) class of diseases proved fatal to 479 persons in the eight towns, and thus constituted 22·2 per cent. of the mortality. This rate was exceeded in Dundee from the prevalence of hooping-cough, and in Leith from the prevalence of measles, 23·3 per cent. of the deaths in the latter town having been caused by measles. Typhus and allied fevers caused 104 deaths, or 4·8 per cent. of the mortality in the eight towns; but in Paisley and in Greenock, 8·9 per cent. of the deaths were caused by fever.

Panic in Algeria.—The *Moniteur d'Algérie* states that the inhabitants, both native and European, have fled in consternation from the town of Biskra, and that those suffering from the new epidemic are in Hospital under care of M. Dubois.

The Sufferers from the Explosion at Bordeaux.—The 33 unfortunate persons who were more or less seriously wounded in the explosion of paraffin oil which recently occurred at Bordeaux are receiving every care and attention at the Hôpital Saint-André, and, under the tender watchfulness of the Sisters of Mercy, their sufferings have been greatly alleviated. On Monday they were visited by M. Bouville and General Piétrequin, who was conducted through the wards by the *Administrateur-commissaire*, M. Brunet.

Medical Charities.—We have great pleasure in announcing the following legacies to some of our most deserving Medical institutions:—From Mrs. S. Tanner, to the Bristol General Hospital, £1000, and a share in the residue of her estate; from Miss Sarah Newland, of Chichester, nineteen guineas each to the West Sussex, East Hampshire, Chichester General Infirmary, and Chichester Dispensary. The late Welwood Maxwell, Esq., of the Grove, near Dumfries, has bequeathed to the Liverpool Royal Infirmary £1000; the Northern Hospital, Liverpool, £200; the Southern Hospital, Liverpool, £200; the Royal Infirmary, Dumfries, £500; and the Dumfries Hospital, £100. The brother of the above gentleman, Alexander Maxwell, Esq, of Glengaber, near Dumfries, also recently deceased, has bequeathed to the Royal Infirmary, Liverpool, £300; the Northern Hospital, Liverpool, £250; the Southern Hospital, Liverpool, £250; and the Royal Infirmary, Dumfries, £250. All these benevolent individuals have left large sums to other charities not strictly Medical, and in every case have directed that the legacies be paid free of legacy duty, the total sum amounting for Medical charities only to nearly £4130.

Extraordinary Case of Early Viability.—This case is related by Dr. Kennedy in the *New Orleans Medical Journal*. Unfortunately it is so only from memory, as the Doctor had all his copious notes of the case, together with his library and property, destroyed in the late war. However, complete reliability may be placed on any statement coming from him, as far as its truthfulness is concerned, and he recollects enough of the case to show that it is unique. In 1845 a primipara gave birth to a fœtus "not more than eight inches long, and as red as a piece of raw beef. True dermoid tissue could not be said to be organised, its general investiture being so delicate a membrane, as it were, that the eye could look through it on the tissues beneath. The eyes were still closed; there were no traces of cilia or supercilia; its chest was about two inches broad, the arms and legs very slender, and the toes and fingers devoid of traces of nails. The head was about the size of a small orange. The respiration was so feeble as scarcely to be perceptible, and not a sound was uttered after its birth. When I laid it in the length of my left hand, the head lay in the concavity of my flexed fingers, the chest and breech in the palm, and the feet reached almost an inch beyond the wrist." It was carefully wrapped up and fed, first with sugar and water, and afterwards with milk, having frequent baths in a tumbler. Within three weeks after birth, it had an attack of trismus, and its whole infancy was stormy in the extreme; hydrocephalus, cholera infantum, measles, diarrhœa, being some only of the affections which it suffered. However, when last seen, this atom of humanity had developed into a fine healthy boy of twelve.—*New York Medical Journal*, July.

Six children have been poisoned at Ledbury through eating berries of the cuckoopint (*Arum maculatum*). The poor little creatures took them for green peas.

A young man has just committed suicide at an hotel near the Rue St. Martin by sticking about fifty pins into his breast. When found he was bleeding to death, and expired shortly after. He left a letter saying that his life had been one series of disappointments and sufferings, and that as fatality was killing him *à coups d'epingle*, he had chosen that mode of putting an end to his existence, which manner, he believed, he had been the first to imagine.—*Times* Paris Correspondent, August 10.

We have received a note from Professor Lasègue, of the Faculty of Medicine in Paris, stating that the friends and pupils of Trousseau desire to erect a memorial to that noble Physician. They wish that this should not be a French memorial of a Frenchman, but one expressive of the kindly feelings which all professors of the art of healing must entertain for the memory of one who did so much to advance their knowledge of disease and its remedies. In this desire we heartily concur, and gladly make known the proposition. Trousseau's fame is cosmopolitan, and he has left behind him a reputation unequalled by any modern Physician. To aid in carrying out so worthy an object, we shall be happy to receive subscriptions at the office of the *Medical Times and Gazette*.

Fractured Clavicle in an Aged Person without Visible Sign.—M. A. Guérin related to the Society of Surgery the case of a man, aged 60, who complained of pain in the middle of the clavicle, which was, however, not severe enough to prevent the movements of the arm. There was no deformity or ecchymosis whatever; but on moving the arm with the hand placed on the clavicle, a slight crepitation could be felt. The patient in a few days died of pneumonia. At the autopsy an oblique fracture was found, the periosteum and all the soft parts remaining intact. Nor could the fragments be moved by almost violent direct pressure, but only by raising the ends of the bone. M. Marjolin observed that when the diagnosis of these cases is difficult the mode recommended by Robert may be tried. The patient is desired to raise himself upon his two wrists, and, while he tries to do this, the hand, applied over the clavicle, easily perceives the crepitation.—*Gazette des Hôp.*, August 3.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** Correspondents are respectfully requested, for the present, to address all communications to 11, New Burlington-street.

Mr. Armstrong.—We have seen the book, but forget the title. It is in the library of the College of Surgeons, and contains two or more autographs of Shakespeare; but as it came from the library of Ireland, the forger of the Shakespearian manuscripts, the authenticity is doubtful.

A Member of the Association.—Mr. Farley, of Drogheda, has published two very good groups of those members who accompanied Sir William Wilde in his excursion to the scenes of the Battle of the Boyne. In one the visitors are represented in front of the fine castle of the Marquis of Conyngham; in the other, just before exploring the great tumulus of New Grange. In these *souvenirs* of the Dublin visit, we recognise the portraits of Drs. Barnes, Paget, Sawyer, Oldham, Rugg, Sir Wm. Wilde; Messrs. Tufnell, Dunn, Bartlett, Stone.

Archæologist.—The bills of mortality were commenced by the Parish Clerks Company so long ago as 1592, who, about 1625, were licensed by the Star Chamber to keep a printing press in their hall for printing the bills, valuable for their warnings of the existence or progress of the plague. The weekly bills of the parish clerks have, however, been superseded by the "Table of Mortality in the Metropolis," issued weekly from the Registrar-General's office, Somerset House, since July 1, 1837.

The South London Flood.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

"And South Belgravia generally were flooded with dilute sewer-water to the height, in some instances, of three feet."

Sir,—The above being an extract from a recent number of your publication, I shall feel obliged by your correcting the same as far as this district is concerned, especially with reference to this road and its immediate vicinity. Having resided in this house for nearly fifteen years, I can vouch for the dryness of it during the whole of that time—indeed, as to the influx of water, or even damp of any kind, so perfectly well-drained is this estate as to bear comparison with, if not to exceed, any locality in London. In addition to my own testimony, I could, if necessary, bring many other inhabitants of the district to confirm my statement with respect to their own residences.

Trusting to your sense of truth to correct this error, I am, &c.
95, St. George's-road, Belgravia, S., Aug. 12. Henry Cooper.

*** Our contributor last week of course did not intend to say that every house in South Belgravia was flooded; he expressly said that many escaped, but his statement was, perhaps, a little too general.

Walsall Cottage Hospital.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I see by your remarks, etc., on Cottage Hospitals, in your number of August 3, that you are led into error with regard to the payment of officers, which I take the liberty of rectifying.

The ladies in connexion with the "sisterhood" give their services free, and in many instances subscribe personally. There are, however (at least in our Hospital here), one or two women who receive payment for duties performed, such as our special night nurse, and other servants who are connected with the patients in domestic arrangements only.

The secretary receives a salary. The Medical officers, however, receive no salary, although the original Medical officer of this Hospital, at its commencement in October, 1863, made some arrangement by which he received a salary at the end of the first six months of his attendance, upon condition that he gave his services during that period free. At the expiration of his office, however, new arrangements were made with the Committee by the late lamented Mr. Redfern Davies, whereby the

Hospital was provided with the necessary attendance free. Subsequently, a second Surgeon was appointed—viz., myself—without salary or remuneration of any kind. Upon the resignation of Mr. R. Davies, through illness, it was of course necessary to fill his position, when my father was appointed, also without remuneration, so that our Hospital is supplied with Professional attendance free of expense, which arrangement will never be altered during any connexion either my father or myself may have with the institution.

The patients do not subscribe to this Hospital, and it is supported entirely by voluntary subscriptions and donations.

In my case, where death followed amputation through the trochanters for disease of the knee-joint and shaft of femur, allow me to observe here that it was in no way connected with the operation, as the case progressed favourably for three weeks, when disease of the kidneys set in, and ultimately proved fatal.

Since the table you publish was made out, I have had three large and many small operations. I subjoin the principal:—

1. Amputation at the hip-joint on a child, aged 3½ years, for injury received by a truck passing over the limb. Died fourteen hours after operation.

2. Primary amputation through upper fourth of forearm for injury; compound fracture. Case progressing favourably. Operated on July 29.

3. Primary amputation through upper fourth of tibia for railway smash. Operated on August 7. Progressing favourably so far.

Acupressure was used in all cases, together with skin flaps, and no dressing of any kind whatever.

At any future time I shall be most happy to give you any information in connexion with this Hospital, and report cases should they be acceptable.

By inserting the above at your early convenience you will oblige

Yours, &c. JNO. BURTON, Physician and Surgeon.

1, King-street, Walsall, August 8.

Case of Foreign Body in the Throat.—Removal.

By Henry Usher, B.A., M.B., Surgeon.

A little infant, over two years of age, not long after its dinner commenced to vomit. The quantity was small, containing some very hard green peas and meat. Seeing that the vomiting continued in a very distressing manner, the mother got some hot water to act as an emetic. Luckily for the child, I was at hand, and looked into the throat, as the little creature was paralysed with fear, and kept both its hands to the mouth. Depressing the tongue, I saw far below its root the loop of one of the "Safety Patent Pins." The first thing to hand was a bent pair of Surgical scissors, and with these I was enabled to seize the nearest part. I found it tightly fixed, the point having gone into, I suppose, the back of the pharynx. The poor child was in dreadful agony, and I had feared the case was at an end; but a bent polypus forceps came to my aid. A lady held the upper jaw, myself the lower. Then, getting a firm hold of the pin, and knowing from its shape the direction the point had taken, I pressed it backwards, which closed the pin, and a little downwards, thus releasing the point, and in a moment I had the satisfaction to remove it from its perilous position. Some children seem to have nine lives, for it was only the other day that this little creature managed to roll a nine gallon cask of beer, nearly full, off its stand, and escaped unhurt. A couple of hours after this morning's accident she was as lively as ever.

COMMUNICATIONS have been received from—

A Constant Reader; Dr. Ussher; Mr. Henry Pitman; Mr. Wm. Fraser; Dr. Burton; Prof. La Secue; Dr. Thorowgood; Mr. Spencer Watson; Mr. Lawson Tait; Mr. C. R. Thompson; Mr. J. D. Brows; Mr. J. S. Brazier; Dr. J. M'Bride; A Hospital Physician; Dr. de Negri; An Inquirer; Dr. B. W. Richardson; Mr. J. Chatto; Dr. Hughlings Jackson; Mr. W. T. Hale.

BOOKS RECEIVED—

Hartshorne's Essentials of the Principles and Practice of Medicine—Letheby's Report of the Sanitary Condition of the City of London—American Journal of the Medical Sciences—Report of the Pennsylvania Hospital for the Insane—Hughes's Manual of Pharmaco-dynamics—Duncan and Fraser on Aneurism.

NEWSPAPERS RECEIVED—

Gazette des Hôpitaux—L'Union Médicale—The Laboratory—Gazette Hebdomadaire—Gazette Médicale—Dublin Daily Express—Eastern Morning News—Mouvement Médicale—Medical Press and Circular—Marylebone Mercury—Dublin Express.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·747 in.
Mean temperature	60·1
Highest point of thermometer	75·9
Lowest point of thermometer	49·1
Mean dew-point temperature	54·5
General direction of wind	S.W.
Whole amount of rain in the week	1·09

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 10, 1867.

BIRTHS.

Births of Boys, 1053; Girls, 1034; Total, 2087.
Average of 10 corresponding weeks, 1857-66, 1779·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	667	607	1274
Average of the ten years 1857-66	687·7	661·3	1349·0
Average corrected to increased population..	..	..	1394
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	1	3	1	10	3	26	5
North ..	618,210	..	3	4	1	8	12	49	3
Central	378,058	1	4	..	..	4	4	30	..
East ..	571,158	3	3	2	..	5	8	44	2
South ..	773,175	6	2	11	3	5	5	43	3
Total ..	2,803,989	12	13	20	5	32	32	189	13

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 10, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Aug. 10.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Aug. 10.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2087	1421	1274	75·9	49·1	60·1	1·09	110
Bristol (City) .	165572	35·3	117	74	‡45	69·1	49·9	58·5	0·93	94
Birmingham (Boro')	343948	43·9	243	167	176	73·6	48·5	59·6	0·65	66
Liverpool (Borough)	492439	96·4	389	285	262	69·1	50·1	59·5	0·48	48
Manchester (City) .	362823	80·9	239	205	‡198	..	..	..	..	..
Salford (Borough) .	115013	22·9	64	53	53	71·8	44·9	56·9	0·70	71
Sheffield (Borough).	225199	9·9	179	119	97	73·3	47·7	57·4	0·21	21
Leeds (Borough) .	232428	10·8	160	118	127	75·0	44·5	58·7	0·31	31
Hull (Borough) .	106740	30·0	61	49	46	73·0	45·0	58·9	0·42	42
Newcastle-on-Tyne, do.	124960	23·4	78	66	57	65·0	48·0	57·9	0·60	61
Edinburgh (City) .	176081	39·8	115	85	72	65·7	48·0	58·0	0·44	40
Glasgow (City) .	440979	87·1	340	257	178	65·9	47·0	57·0	1·01	102
Dublin (City and suburbs) .	319210	32·8	129	‡157	130	71·9	42·1	59·5	0·46	46
Total of 13 large Towns . .	6187764	34·8	4201	3061	2715 Week ending Aug. 3.	75·9	42·1	58·5	0·61	62
						Week ending Aug. 3.				
Vienna (City) .	(1863) 560000	..	..	..	233	..	..	§60·1	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·747 in. The barometrical reading increased from 29·87 in. on Thursday, August 8, to 30·00 in. by the end of the week.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 55·0°.

APPOINTMENTS FOR THE WEEK.

August 17. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

19. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

20. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

21. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

22. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

23. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

PARIS EXHIBITION, 1867.

"MAIZENA."

This delicious food, which gained the ONLY PRIZE MEDAL in 1862, with the high report of Jury, "EXCEEDINGLY EXCELLENT FOOD," and now in Paris the SOLE SILVER MEDAL d'HONNEUR, with the distinguished report "PERFECTION of PREPARATION," is served up daily in the form of Puddings, Creams, Soups, Cakes, &c., in all the Buffets. Visitors are recommended to try this delightful food.

SOLD IN PACKETS EVERYWHERE.

PURE FLOUR OF LENTILS.

Wholesome. Nutritious. Easy of digestion. Recommended for Invalids and Children. 1s. per lb. Manufactured by Horsnaill & Catchpool, Bullford Steam Mills, Essex; and 355, Goswell-road, London, E.C. Wholesale Agents, Maw & Son, 11, Aldersgate-street, E.C. Prices to the Trade: 1 lb. Tins, 8s. per Doz.; ½ lb. Tins, 4s. per Doz.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

The Mineral Water of Geilnau (Nassau), an Acidulous and slightly Alkaline and Chalybeate Water, of very agreeable and refreshing taste, owing to its large proportion of carbonic acid; a valuable Dietetic Beverage in many morbid tendencies through its antacid, diuretic, and tonic qualities.

Specimen and analysis of the Water may be obtained from Messrs. BECKER and JUNG (Ems), the appointed Agents, 9, Rood-lane, Fenchurch-street, E.C., London, who supply also the other German Mineral Waters.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.

VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.

VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

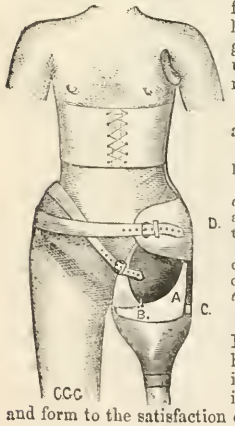
DR. CHAPMAN'S SPINE BAGS (PATENT)

For the Treatment of Disease by the application of Cold and Heat along the Spine, are sold by C. Macintosh and Co., 3, Cannon-street West; S. Maw and Son, 11, Aldersgate-street; J. G. Gould, 198, Oxford-street, London; also by Thomas Chapman, 56, Buchanan-street, Glasgow; and may be had by order of all Druggists. A description of the different kinds and sizes of the Bags may be had on application to any of the Agents named above.

ARTIFICIAL LEGS.

(See "The Lancet," April 7th, 1866, page 368.)

IT has often been, and is still asserted, that Nature is our best guide in the construction of Artificial Limbs; and, in accordance with this assertion, Legs have been made not only very intricate in their mechanism, but clumsy and heavy, and, above all, a poor, miserable imitation of Nature's production.



It would be as sad an imitation of Nature were we to give the Locomotive four artificial horse's legs, instead of wheels, because Nature does not employ the latter. Neither is the excellence of a certain form of limb demonstrated by a glowing description of the maker's talents; by a pretentious bandying about of undefinable terms; or by the comparison of the Artificial Leg with an automaton mechanism, or with the building of a ship, &c.

Every wearer of an Artificial Leg will readily understand the importance attached to the following points:—

1. However beautiful in external form, or sound in workmanship, an Artificial Leg is of little use *unless it fits the wearer accurately.*

2. And if well fitted, the next most important—nay, essential consideration, is its *firm and proper attachment* to the body, to let the wearer feel that he has full command over the artificial substitute. This is a point too much neglected, as, in some cases of amputation above the knee, with a short stump, everything depends on the *firm*, and yet *flexible* attachment.

3. Since the soft integuments by means of which the body rests on an artificial leg do not compress everywhere to the same amount, it is evident that a leg fitted to a stump in its ordinary condition *will not do so when the latter is pressed down by the weight of the body; hence the leg must be fitted under the latter condition.*

Mr. C. G. GUMPEL, Engineer and Anatomical Mechanist, for three years Principal Assistant to Dr. Otto Langgaard, at Hamburg, and for eight and a half years Manager and Designer to Mr. Bigg, is enabled, through long experience in the production of Artificial Limbs, besides a Practical and Theoretical Education in Applied Mechanics, to fit and adapt Artificial Substitutes of every description and form to the satisfaction of those who may entrust themselves to his care.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture III.—Part I.

THE APPLICATION OF THE SHORT FORCEPS—HEAD IN FIRST POSITION—HEAD IN SECOND POSITION—OBJECTIONS TO SHORT FORCEPS.

We now come to the mode of applying the short forceps. The head we assume to be in the pelvis, lying in the right oblique diameter. The child's right ear will be a little to the right of, and above, the symphysis pubis. We have first to consider certain conditions, some of which are necessary to the proper use of the forceps—some which are not necessary, but favourable. 1. The membranes must be ruptured. 2. The cervix uteri must be fairly dilated. 3. The bladder should be empty. 4. The patient must be in a convenient position. Abroad, the patient is usually placed in lithotomy position, on the edge of the bed. With us the pelvis is simply drawn to the edge of the bed, the patient lying on her left side. I think it needless to enter into controversy upon the relative advantages of the two positions. We shall probably adhere to custom. The English method involves much less disturbance of the patient; it involves no exposure; it requires no second assistant; and is in many respects most convenient in home practice. But in cases of convulsions, where the patient is unconscious or unmanageable, it is at times necessary to apply the forceps in the dorsal position. If we use the long French forceps, there is, indeed, little choice. The patient must be in lithotomy position, or if on her side, the pelvis must overhang the edge of the bed to an inconvenient extent. The conditions rendering the dorsal position preferable will be pointed out as the occasions arise.

The operation may be divided into four stages or acts. 1. Introduction of the blades; 2. Locking; 3. Traction and leverage; 4. Removal of the instrument.

1. *Which blade do you pass first?* In the case of the short forceps, both blades being alike, you cannot take up the wrong one. Seizing, then, either blade, you have to pass it between the head and the sacrum, and feeling the pubic ear you know the sacral ear is exactly opposite. This blade becomes the posterior or sacral blade. Holding the blade lightly in the right hand, the handle raised and directed forwards, so that the blade shall cross the mother's right thigh obliquely, the point will be guided over the perinæum by two fingers of the left hand, which are passed up carefully between the child's head and the cervix uteri. The all-essential point is to make out clearly the edge of the os uteri, to pass your fingers inside this edge, and to touch the head itself; then slipping the point of the blade along the inside of your fingers, the os uteri resting on the outside of your fingers, the blade will strike the head. This done, you have to adapt the blade to the convexity of the head. The point, therefore, must follow this convexity. This is done by lowering the handle and drawing it backwards, the point being still guided by the fingers of the left hand. When the convexity is well grasped, the handle is further pushed well back against the perinæum, to give room for the manipulation of the second or pubic blade.

Introduction of the Second Blade.—The fingers of the left hand are shifted forward, so as to raise the os uteri from the pubic side of the head. The handle is held very low and slightly forwards, crossing the mother's left thigh obliquely. Running the point along the palmar aspect of the fingers behind the right pubic ramus, when the point strikes the head the handle is raised and carried backwards, so as to take the blade over the convexity of the head. Here you must proceed with the utmost gentleness. It is not by force that you will succeed in passing the blade. Force is quite out of place. You may take this as an axiom: If you are met by resistance that only force can overcome, you are going wrong; and, *vice versâ*, if the blades are slipping in easily, the probability is that you are going right. The rule, then, is this—hold the blade lightly; let it feel its way, as it were; let it insinuate itself into position. It will be sure to slide into the space where there is most room—that is, one blade will go nearly

Fig. 11.

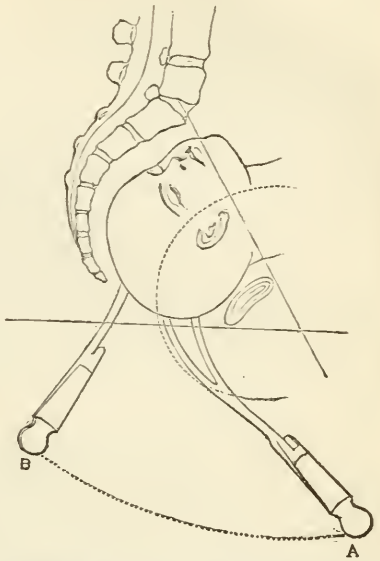


Fig. 11, showing application of first or sacral blade of the short forceps. A, first stage, blade being guided on to the head. The handle A is then carried slightly downwards and backwards, to get round the head and up into side of the pelvis in the line A B. At B the blade is *in situ*.

Fig. 12.

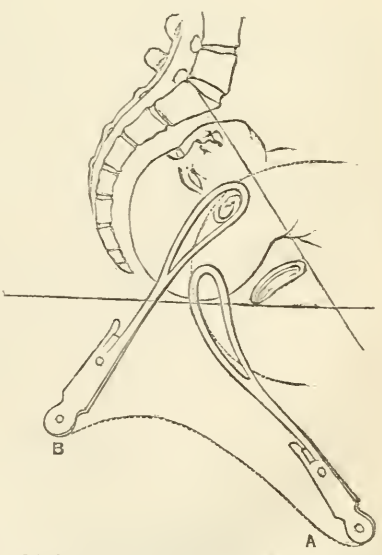


Fig. 12.—Introduction of the short forceps—the second or pubic blade. A, the first stage. As the blade passes up the pelvis and round the head, the handle travels in the direction of the line A B. At B the blade is *in situ*. The two blades of Figs. 11 and 12, therefore, correspond at B, and will lock.

opposite the sacro-iliac synchondrosis, the other will go opposite the foramen ovale (a)

The blades introduced, the left hand is withdrawn from the vagina, and the *second* act, or *locking*, is to be done. You seize lightly a handle with each hand, draw them into opposition, and if they have been correctly introduced they will readily lock. A smooth lock is generally an indication that the head is properly grasped. During locking be careful to pass your finger round the lock, in order to remove any hair or skin that might otherwise get pinched. This is especially necessary in using the short forceps.

Then come, 3rdly, *traction* and *leverage*. These must be exerted in the direction of the pelvic axis. Thus at first the traction will be backwards in a line drawn from the umbilicus to the coccyx. Gradually, as the head descends, the handles will come more forwards, and the face turning a little backwards into the hollow of the sacrum, the handles will also rotate, so that the instrument will approach the transverse diameter of the pelvis. As the head emerges, the vertex appearing under the pubic arch in the genital fissure, the handles, following the extension movement of the head, will describe a circle around the symphysis as a centre, and will therefore at the moment of exit be applied nearly to the mother's abdomen. At this moment, and even earlier if active uterine action have set in, the fourth act—*removal* of the instrument—must be effected. This often requires some smartness. You abandon the grasp of the handles, seize the handle of the pubic blade, draw it downwards and backwards off the head; then, taking the handle of the sacral blade, you draw it upwards and a little backwards.

Head in the Second Position, or occiput to right foramen ovale. In this case you still feel for the pubic ear, which will guide you to the other ear opposite the right sacro-iliac synchondrosis. As the rule is to apply the short forceps over the ears, the introduction of the blades must be governed by the position of the head. You must first, then, determine the position of the head. So say most, if not all, our systematic authors. So many positions of the head, so many varying modes of applying the forceps! Now listen to the voice of experience—experience that so often sets at nought the refinements of theory, and clears out for herself a straight and simple path through the intricacies woven in the closet. Dr. Ramsbotham says,(b) "In employing the short forceps I lay it down as a rule that the blades should be passed over the ears: the head is more under command when embraced laterally, and there is less danger of injuring the soft parts during extraction. *But I confess that I have for many years been accustomed, however low the head may be, to introduce the blades within each ilium, because they usually pass up more easily in that direction.*" I think I am not wrong in believing that many others do the same thing, some not knowing it, and even imagining that they are following the ancient rule. It is a habit of mine to examine the head in every case of delivery. I have thus many times seen the stamp of the fenestræ on the brow and side of the occiput. This is as clear to read as the impression of a seal on wax. It says unmistakably that the blades found their way into the sides of the pelvis with at most a slight deviation towards an oblique diameter.

All this suggests the question whether it be really so necessary to "feel the ear" before applying the forceps as has been imagined. If the blades *will* find their way to the sides of the pelvis, clearly it is not necessary to know where the ears are. To feel an ear must in most cases put the patient to much suffering. You can, however, scarcely feel an ear unless the os uteri be well expanded. This being so, we have an argument in favour of the old rule—not of much worth, it is true, for we can have the assurance that the cervix is properly expanded by other means. With the long forceps, the ancient rule is clearly superfluous.

There is one case in which the short forceps is of especial value. It is when the head descends into the pelvis, its long diameter keeping nearly in the transverse diameter of the pelvis, until it is arrested on the shelf formed by the sacro-sciatic ligaments. At this point, from want of propelling power, the head does not take its screw-movement of rotation on its axis so as to bring the occiput forwards. If the short forceps be now applied in the transverse diameter of the head, by a slight rotatory movement, the axial turn is given, the occiput comes forward, the face goes to the sacrum, and the head is released. In two cases of this kind I thus easily succeeded in delivering after failing with my long forceps. These are the only two cases in which I have ever found the short forceps preferable to the long. And the simple lever would have answered as well. One merit the short forceps has, not without importance to the novice: it is easier to use than the long forceps.

There are *objections* to the single-curved forceps, short or long:—

1. One objection is in the introduction, others in the injuries likely to be inflicted on mother or child. To introduce the second or upper blade, the handle must be much depressed, nearly at right angles with the mother's left thigh, which is flexed upon her abdomen. Now, to do this, the patient's nates must be dragged over the edge of the bed. To procure and to maintain this position is often a matter of great difficulty and inconvenience.

You may facilitate the introduction of the second blade by introducing a joint into the shank, so as to allow the handle to be doubled up out of the way. Dr. Giles showed at the Obstetrical Exhibition an instrument so modified.

2. In extraction, the handles, nearly to the last moment, must be directed more backwards than is necessary with the double-curved forceps, and owing to the bows springing directly from the lock, the perinæum is wedged open, and not seldom unavoidably torn. In some cases, this injury may be avoided by taking off the blades before the greatest diameter of the head passes. But then the work is not always done, and you may have to put them on again. I may perhaps be told that to suffer the short forceps to tear the perinæum implies want of skill. I reply that men of the highest skill and the largest experience with this instrument have confessed to me that this objection is a real one.

Fig. 13.

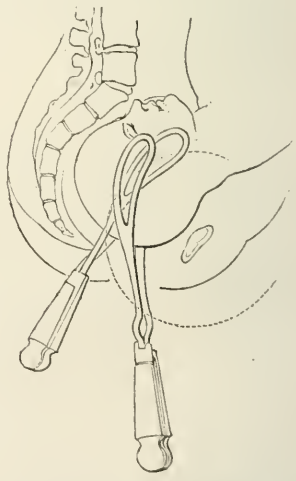


Fig. 13.—Showing the short and long forceps *in situ*. The short forceps presses back upon the perinæum, putting this structure on the stretch. The shanks of the long forceps keep clear of the perinæum, the whole instrument approximating to Carus' curve.

The best short forceps is perhaps that of Dr. Beatty, of Dublin. It much resembles the short forceps of Smellie. I used it for some time, but have given it up because of these two faults and of its inadequacy to cope with a large range of cases which come within the power of the long forceps.

3. The posterior or sacral blade is extremely apt to bruise by one of its edges the sciatic nerve.

The effect is the crushing of some fibres and more or less protracted paralysis of the leg.

4. If the blade be applied as usually taught—*i.e.*, nearly in

(a) The adherents of the short forceps generally recommend to pass *the upper or anterior blade first*. It would not be easy to prove any advantage in this method. I believe the most skilful Practitioners in London and Edinburgh now follow the method recommended in the text—namely, of passing the lower or sacral blade first.

(b) *Medical Times and Gazette*. 1862.

the transverse diameter of the head—an edge is very likely to press upon the portio dura as it emerges from the temporal bone. The result is paralysis of the facial muscles to which the branches are distributed. The child cannot shut the eye; it cannot suck. I have known a child die of starvation from this cause.

From all these objections the long forceps I recommend is nearly altogether free.

ORIGINAL COMMUNICATIONS.

ON THE ALLEGED ANTICIPATION OF ACUPRESSURE IN THE SIXTEENTH CENTURY BY JOHN DE VIGO.

By Sir J. Y. SIMPSON, Bart., M.D., D.C.L., etc.

When, some eight years ago, the idea of arresting hæmorrhage by acupressure first occurred to my mind, and I began to work out the different methods of applying it, I made a somewhat extensive search through such Surgical literature as I had access to, with the view of finding out whether the same hæmostatic principle had been previously proposed or not. I entered on the literary part of the inquiry fully believing that such a very simple and efficient mode of staying the bleeding accompanying Surgical wounds and operations would in all likelihood have been suggested by some Surgical authority or another; and I was surprised rather than otherwise to find no traces of it whatever in the past records of practical Surgery—for it is confessedly rare that we have ever, in modern days, operations or plans of practice adduced—much less any great general principle of treatment, such as acupressure—without being able to discover some more or less distinct notices of them in antecedent times.

In the last *Medical Times and Gazette*, however, it has been stated that long ago (or about 1516) the famous Italian Surgeon, John de Vigo, has described one mode of acupressure; but the statement is no doubt erroneous, and arises entirely, I believe, from a misinterpretation of the Latin description, by John de Vigo, of the tying of bleeding vessels. The statement itself occurs in the very able and eloquent address on Surgery which was delivered on August 8 by my friend, Professor Smith, before the annual meeting of the British Medical Association at Dublin. In this address he adverts rather censoriously (see last *Medical Times and Gazette*, p. 184) to the "neglect of the works of the ancients," and to the reproduction, in modern times, of some of their modes of treatment, operations, etc., "clothed in all the glittering charms of novelty." As "one example," and, in his own words, "*a most remarkable one*," he cites John de Vigo as having described the arrestment of hæmorrhage by acupressure. Professor Smith places John de Vigo in the seventeenth, instead of the early part of the sixteenth century. And he gives his alleged account of acupressure in the following words:—"He [John de Vigo] says it was the practice of some to tie the veins and arteries, when opened, with a needle and thread. '*Modus autem ligationis: eam aliqui efficiunt intromittendo acum sub vena, desuper filum stringendo.*' Is not this (Professor Smith adds) the third mode of acupressure of Sir James Simpson? . . . who, it is obvious, was not aware of the passage I have quoted."

I have been long familiar with this passage concerning hæmorrhage in John de Vigo's writings; but the passage assuredly refers to the ligature of vessels, and not to their acupressure. The words, as cited by Professor Smith, are taken by him second-hand from Portal (see his "History of Anatomy and Surgery"), who gives them in a somewhat abridged and mutilated form. If Professor Smith had referred, as perhaps he ought to have done, to the original work of John de Vigo, he would have found him, in his "Liber de Vulneribus," describing two modes of securing bleeding vessels in his chapter "De fluxu sanguinis et de ejus cura," in the following words:—

"Necessarium est aliquando ligare venam presertim arteriam: quia ipsa ligata locus a facili incarnatur remedio. *Modus autem ligationis earum aliquando efficitur intromittendo acum sub vena desuper filum stringendo cum facilitate* aut ligetur vena ipsam excoriando deinde in superiori capite cum filo optime stringatur." (Opera Domini Joannis de Vigo in Chirurgia, 1525, liber iii., tractatus i., caput 2.)

In order to understand these directions we must remember that till the time of Ambrose Parè (half a century after the time of John de Vigo) the arteries exposed in amputation wounds were never tied, but were always cauterised and burned.(a) Arteries and veins, however, laid open in accidental and slight Surgical wounds were sometimes attempted to be ligatured in the way described in these words of John de Vigo. The latter of the two modes which he speaks of as being used by some Surgeons, consisted in exposing or dissecting out (*excoriando*) the upper orifice of the bleeding vessel and tying it with a ligature. The other, or first mode, consisted in passing a threaded needle under the vessel and tying, or ligaturing, the vessel with the thread thus introduced. But the needle was used merely as a means of carrying and passing the thread around or under the vessel—the thread being left as the compressing agent, and the needle at once removed.

To comprehend this point better, let me observe that up to the era of Parè, or about 1560, artery forceps or pincers had, though previously described by Tagaultius, scarcely, I believe, been used, and much less *tenacula*, to draw out the orifice of the bleeding vessel that required to be tied. Before Parè's time a threaded needle was in consequence generally employed, when a ligature was applied at all, to place or pass the ligature around the bleeding vessel. Parè himself describes this as one of his well-known three modes of applying the ligature in Surgical wounds; and it was employed and recommended as late as the last century under the name of "*stitching*," (b) by Shaw, Sharp, Monro, Gooch, and other Surgeons in this country, and by Dionis, Garengeot, Petit, Heister, etc., on the Continent. John Bell, indeed, describes in his "Principles of Surgery" (vol. i. p. 223, edition of 1826) *the* "discovery which has raised Parè to a rank not inferior to that of Harvey," as "the discovery of the *needle and ligature* for stopping arteries." Parè and all his followers used, for the purpose of constricting the arteries, one end of this little instrument—if we may so call it—namely, the ligature; while they cut off the other end of it—namely, the needle, after it had drawn through the thread. Acupressure, on the other hand, consists in inverting all this, or, in other words, in using the other end or portion of the instrument—namely, the needle—and in omitting the thread.

From unfortunately forgetting these well-known facts in the past history of hæmorrhage in Surgery, Professor Smith has been led into the awkward mistake of imagining that John de Vigo has described compression of the bleeding vessel with a needle, or by acupressure, instead of that needle being merely directed by him to draw under the vessel the thread by which the vessel was to be afterwards compressed or tied.

Any person acquainted with mediæval Latinity and with the history of Surgery can only, I believe, read John de Vigo's passage in this one way—namely, as a description, as he himself names it, of the *ligatio* of the vessel.

Formerly I showed the passage to some of our best classical scholars in and out of the Profession, as Professor Sharp, Dr. Andrew Wood, etc., who all read it as describing the ligature, and not the acupressure, of bleeding vessels.

Marianus Sanctus, one of the most distinguished disciples of John de Vigo, has described, in 1543, the method of taking up a bleeding vessel in accordance apparently with the principle and teaching of his master, but at more explicit length. In describing how a bleeding vein or vessel in a wound is to be tied (*venam ligandam*), he orders the lip of the wound to be transfixed above from one side with a needle down to the cut vein, which is to be left untouched; the needle is then to be passed under the vein upwards, and outwards again to the surface. In this way, says he, a loop or noose of string can be formed around the cut vein, and by firmly tying the ends of this string together,

(a) It seems not generally known that Ambrose Parè himself, though using the ligature after amputations, did not use it after such operations as the excision of the cancerous mamma. In describing the extirpation of the carcinomatous mamma, he advises the resulting wound to be "seared with an actuall cautery"—See his "Workes," p. 281.

(b) The most popular English work in Surgery towards the end of the sixteenth and beginning of the seventeenth century, was Cook's "Marrow of Chirurgery." After describing that "dreadful" operation, amputation of the limbs, he speaks of staunching the resulting hæmorrhage by, 1, potential caustics; and, 2, actual cauteries. "The third way," he contemptuously adds, "is by *stitching*, which is almost wholly rejected. See Parœus for the manner" (4th editiou, p 203). After removal of the cancerous mamma, "the mouths," says Shaw, "of the larger vessels are to be *stitched* or sewed up" (*New Practice of Physic*, 1745, vol ii. p. 633). The first Professor Monro tells us that in Edinburgh in 1747, in amputations, "the most common practice is to *stitch* the vessels" (*Edinburyh Medical Essays*, vol. iv. p. 262)

the vein and the lip of the wound are constricted.(c) Another celebrated Italian Surgeon of that day (1553), Alphonsius Ferrius, in speaking of the snaring (*illaqueatio*) of a bleeding vein or artery, recommends the vessel to be surrounded with a thread and the two ends of the thread tightly tied together, and he advises the thread to be carried under or around the vessel with a long curved needle. (See his work *De Selopetorum sive Archibusorum Vulneribus*, lib. ii. cap. v.) In John de Vigo's original Latin there is little punctuation, as Latin works in his day were printed without minor points. Professor Smith, in citing the passage as given by Portal, places a comma where De Vigo and Portal have none—namely, after "*vena*." Probably, if a point should be inserted at all, it should be after "*desuper*," which would give the direction of the needle, and not of the thread.

But we have a form of evidence of, if possible, a still more conclusive and irresistible kind that Professor Smith's interpretation is wrong. For we can appeal to the reading of the debated passage by the various translators of John de Vigo's works, who were necessarily well acquainted with his style. His works were translated into English in 1550 by Bartholome Traheron, and published as "The most excellent Works of Chirurgerie made and set foorthe by Maister John Vigon, Head Chirurgeon of our tyme in Italie," and this translation was republished in 1571 and 1586. In the "Considerations in Emorosagia," the translator renders into old English the Latin passage under discussion in the following words:—"Sometimes also it is necessarie to tye the veine, and chiefely the arterie. For when it is tied, the place is soone incarned. The maner to tye it is as followeth. You must put a nedle under the veine with a cered thred, and draw it [filum] together softly."—(Folio 135.)

In his well-known "Apologie" Ambrose Parè cites various Surgeons and authors who had described the tying of arteries with ligatures before his use of them in amputation. Amongst others he states, in alluding to the preceding passage of John de Vigo, that "John de Vigo treating of a hemoragie in bleeding wounds, commands to *tye* the veine and the artery."—(See his "Workes," p. 1134.)

As I have already stated, Professor Smith has drawn his quotation of the words of John de Vigo, not from the original works of that author, but from a citation of them given by Portal in his "Histoire de l'Anatomie et de la Chirurgie." Portal translates into French the passage cited by Professor Smith. He observes that it does not appear that John de Vigo had himself tried the ligature, but "quelques-uns, dit-il, sont dans l'usage de lier les veines et les artères ouvertes avec une aiguille garnie d'un fil avec lequel ils resserrent les parois du vaisseau" (tom. i. p. 264).

Of course it is almost unnecessary to observe that, according to Portal, the "lequel" which compressed the walls of the vessel was the thread or "fil," and not the "aiguille" or needle, or he would have written it "laquelle."

Further, if Professor Smith had read even Portal's observations correctly, he would have found him arguing in the same page that this description of the ligature of bleeding arteries with threads was as precise as anything that Ambrose Parè himself had written regarding deligation, and that hence the "*gloire*" of the invention of the ligature of arteries should be attributed to John de Vigo—forgetting, however, as Portal here strangely did, that Parè had himself cited Celsus, Avicenna, Guy de Chauliac, Hollier, Tagaultius, etc., as well as John de Vigo, as antecedent writers who had all mentioned the ligature of bleeding arteries and veins.

Full translations of John de Vigo's Latin work have been published in the French, German, and Italian languages; but of these no copies exist in our libraries here. I have no doubt, however, that they will be found to confirm the reading of the passage concerning hæmorrhage as given by Parè, Portal, and Traheron.

While thus showing that my friend, Professor Smith, has inadvertently but entirely mistaken and mistranslated the language of John de Vigo when he thought that that ancient author has described one form of acupressure, let me here add that it is quite possible, and indeed probable, that the use of the needle as a hæmostatic agent in Surgical operations and wounds may yet be found in the past literature of Surgery; but, I repeat, I have hitherto searched in vain for any such notice. Others may be more fortunate in the pursuit, and, for one, I shall not regret any success they may have in that inquiry.

In my work upon Acupressure (1864) I have only alluded to John de Vigo's observations on hæmorrhage as placing him in the list of those who had spoken of the ligature of vessels before the days of Parè. At one time I thought of citing the passage itself brought forward by Professor Smith, with the view of guarding against that misinterpretation of it into which Professor Smith has fallen; and I now regret that I had not done so. But I was advised that the interpretation was too evident to be likely to lead any one into error; and besides, my book was unfortunately becoming far too large and long without any such discussions.

Edinburgh, August 19.

(c) "Transfixi labrum vulneris acu in parte superiori usquo ad venam incisam, eamque lutactam acu reliqui ex una parte. Deinde eandem acum deduxi sub ipsam venam ad partem alteram, et iterum labrum ex infera ad superam partem transfixi, ita quod laqueum inciso vene composuimus, cujus capita bene ncetendo venam cum labro colligavimus." (See the "Compendium in Chirurgia" of Marianus Sanctus in Gesner's "Scriptores Veteres," fol. 161.)

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
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Introduction.

Surgery, regarded as an art, may, like any other art, be practised in either of two ways—empirically, by experience only, or as a scientific art, by the guidance of the science pertaining thereto. Pathology is the science most nearly pertaining to Surgery, and the latter, practised under its guidance, may be properly denominated the pathological practice of Surgery. Such practice might be called rational; but any Surgical practice may be so named which is consistent with known facts, whether they be those of pathology or of experience.

Pathological practice is, however, necessarily guided, though indirectly, by a due knowledge of two analogous sciences—anatomy and physiology; obviously because pathology, the science of diseased conditions, structurally and functionally, has reference to that of healthy conditions in both these aspects.

It would scarcely be here appropriate, however interesting, to trace the modern history of Surgery, in this light, at home, in France also and Germany. For although perhaps a considerable portion of Surgical treatment yet remains empirical, it is now generally felt and acknowledged to be in so far aimless, and as often, therefore, unsuccessful. It is like trying to hit a mark blindfolded. Such treatment can, indeed, only be regarded as a temporary resource, accepted by the Practitioner under the pressure of his natural anxiety to relieve human suffering in any possible way; but only as better than nothing until enlightened by the guidance of pathology.

Thus, then, our treatment should ever be conducted by constant reference to the diseased condition or form of injury; the structural alteration, its situation and extent, and also by the whole vital history of the lesion, its origin, course, and tendency to a favourable or an unfavourable issue. The Surgeon will readily recognise in all this knowledge the elements of pathological diagnosis, etiology, and prognosis, as distinguished from any empirical knowledge in these respects.

But the question of treatment in any case, as guided by pathology, has immediate reference to the *vital* history of the lesion, and especially its course and tendency or continued operation, so to speak, rather than to any consideration of its structural condition, using this term in its widest acceptation, as including the coexisting physical and chemical conditions. Moreover, the most extensive clinical observations tend, I think, to establish this additionally important, though anomalous fact, that no definite and invariable connexion subsists between structural conditions of disease or injury and their vital careers. *Pure* pathology, rather than pathological anatomy, is, in short, the immediate source of guidance in the treatment of disease; although the latter science determines the preliminary question of diagnosis, by supplying signs, physical, structural, and chemical, as the case may be, for identifying the morbid condition.

Such being the general meaning of pathological practice, and its more appropriate signification with regard to *treatment*; the latter acquires a threefold character of the highest interest.

In so far as Medical and Surgical resources are guided and regulated by the natural courses and tendencies of morbid conditions to recovery, therapeutics, in its largest sense, repre-

sents the *earliest occasion* for interference, and the *least* amount, as well as the kind of assistance, which may be indicated from time to time, to conduct the case to this issue. The removal of any conditions having an adverse character is implied in these indications. There is no case in Medicine or Surgery, the treatment of which cannot thus be reduced to the terms of this general therapeutic formula, derived from pathology, provided only the natural career of the injury or disease be sufficiently known for this purpose. But that, in truth, is the grand desideratum in Clinical Medicine and Surgery. Evidently responsive to the self-restorative and reparative power, which is inborn and inherent in the living body, I have long since denominated pathological treatment *conservative*, as denoting its preservative power, the timeliness and moderation especially of its remedial assistance.

In the design and performance of Surgical operations, the guidance of pathology, including that of pathological anatomy, gives rise to "Pathological Operative Surgery." And thus, the how to do, no less than the what to do, in the practice of Surgery, equally acquires a more preservative character.

This position was specially advocated by Professor Hancock recently, in his highly practical course of lectures before the Royal College of Surgeons. Having exposed, at some length, "the very grave error," with reference to diseases of the foot, of "reducing conservative to mere anatomical Surgery," he observed—"Experience has proved that we may do much more good by regulating our operative proceedings by the amount and character of the mischief, and hence I would venture, as suggested by Mr. Gant, to designate the Surgery of the foot 'Pathological Surgery of the foot,' as being more comprehensive, as imposing this law upon us more strongly than does the term 'conservative surgery,' and, at the same time, implying the regulations which should govern us in our operative procedure."

With this preliminary explanation of the distinctive features of Pathological Practice, I purpose, in this and subsequent communications, taking a systematic view of the Guidance of General Pathology in the Treatment of the typical forms of injury and disease.

Their connexion, according to their purely pathological affinities, is represented in the following table; and as these are so many modifications of the process of nutrition, of morbid character, they represent the pathology of nutrition. The general expressions used and the distinctions drawn in this table will have to be fully explained and established as I proceed.

PATHOLOGY OF NUTRITION.

1. Reparative nutrition.
   By growth of original textures—immediate union.
   By formation of supplemental textures;—
   - Plastic-lymph
     - Primary adhesion — In simple wounds, wounds of blood-vessels, simple fracture, and dislocation.
     - Granulations and their adhesions — Contused wound, compound fracture, and dislocation.
2. Accelerated nutrition.
   Inflammation, and arrested development of textural elements;—
   Permanent products—supplemental tissues—*e.g.*, false membrane.
   Perishable products—exudation, pus, tubercle.
3. Reproductive nutrition.
   - Growths—localised — Fibro-cellular tumour. Fibrous. Fatty. Cystic. Cartilaginous.
   - ,, recurring—fibroid, fibro-nucleated, myeloid.
   - ,, infiltrating—cancer; encephaloid, scirrhous, colloid, epithelial.
4. Declining nutrition and death of textures, and products.
   By relapse of development and structural substitution, with physical transformation;—
   Degeneration—fatty, pigmentary, fibrous, amyloid, granular, calcareous.
   By relapse of development and transformation, without substitution;—
   Disintegration—ulceration, mortification.

The most remarkable general fact respecting morbid conditions, considered according to their purely pathological affinities, is this:—That many diseases or injuries, perhaps both together, thus become allied, which yet differ widely in their structural or pathologico-anatomical conditions; and differ, therefore, as widely in their diagnostic characters. The general pathological *laws* thence educed have a highly important bearing on the indications of treatment; the pathology of any one such lesion throwing light collaterally on the treatment of its allies, and the practical study of one, as the *type*, shortening the consideration which would otherwise be necessary in each case. In this way, the true pathological Practitioner surpasses the mere observer and narrator of cases, regarded simply as continuous histories of disease—of which material there is such a superabundance in every branch of Medical literature—for even one case, rightly interpreted, may, like the Delphic oracle of old, be full of hidden meaning to those who can comprehend its utterances. Thus, a simple incised wound, wounds of blood-vessels, simple fractures, and similar dislocations, are so far allied lesions, that the textures, whether incised or lacerated, alike undergo essentially the same natural process of reparation; and thus the pathology of the first-named lesion, taken as the type, enlightens and represents *mutatis mutandis*, the treatment of the rest.

Healing by "primary adhesion" underlies, so to speak, the reparation of all these lesions, suggesting, with regard to each, the requisite treatment for this purpose. What! it may be said, is this proposition essentially true with regard to injuries of blood-vessels? Well, just observe how all these lesions conform to the operation of one and the same pathological law of reparation.

Beginning with the typical lesion — incised wound—its natural course and tendency is to re-union of the divided textures, by the organisation of lymph in sufficient quantity to form a re-connecting medium of fibro-cellular (connective) tissue between them. This proposition is equally true, whether we revert to the theory that the capillary blood-vessels, relaxing and enlarging, yield up a portion of their contents—the plastic material which by effusion is "deposited"—or if we incline to the modern view that the texural elements themselves become more active in their formative metamorphosis, and thus "extract" this material, the supply being equal to the demand. I suspect that both these changes co-operate.

Wounds of arteries undergo a process of reparation, essentially the same, whether the wound be incised and partial, as a slit in the vessel, or a complete division of its calibre; or if the arterial textures be torn, and partially through, as by the application of a ligature, thus dividing the two outer coats only, or again if the vessel be torn in twain; in either of these various forms of injury the textures are re-united in a manner precisely similar to that of any other soft texture—the formation of clot on behalf of a wounded artery being only a temporary provision for the arrest of hæmorrhage. Veins are apparently subject to the same series of reparative changes. Simple fracture is obedient to a similar process, the only difference here being that the reconnecting medium of fibro-cellular tissue—"intermediate callus"—is subsequently converted into the continuous texture—bone; while any external or internal callus, occasionally present as additional securities or natural splints, are temporary provisions only against displacement. They are relatively to fracture union what clot-compresses are to the reparation of blood-vessels. Either is provided when necessary for their purposes, and withdrawn by nature when no longer required. The process of reparation is essentially the same in both cases—namely, that of an incised wound healing by "primary adhesion."

Simple dislocation implies the laceration of many textures of diverse character — synovial membrane, ligaments and tendons, perhaps muscles, blood-vessels, and nerves. Yet they alike re-unite by the same process, conformably to the law which we have briefly traced.

The various textures never regain their severally original structural conditions of continuity; for although the intervening layer of lymph may be fashioned off to the likeness of the texture wherein it is formed, the reparative tissue never attains the same structural and physical characters; remaining more or less conspicuously unlike, as a linear "cicatrix," an intermediate "callus," and so forth.

A few words will suffice to illustrate the practical bearing of this association of injuries with regard to their treatment. The same pathological law of reparation guides and regulates their management.

The "earliest occasion" for any interference is indicated by the commencement of the reparative process, prior to which interference would be useless or injurious, while the "kind"

and "least" amount of assistance are indicated respectively by the nature and shortcomings of that process. Thus, incised wound—apart from the consideration of hæmorrhage, or, perchance, the presence of any foreign body—is a lesion which remains stationary until the surface has become glazed. *Then* reparative plasma begins to exude. Up to this time, therefore, apposition of the surface is at least useless—an injunction which was always urged and practised by Mr. Liston, with regard to the amputation wound of a limb and all other large wounds. The deeper and more extensive the wound, the more advisable is it to wait this event; with one exception—a deep muscular wound, which, retracting and gaping, non-interference would allow the muscles to become agglutinated within their sheathing fasciæ. Simple fracture, in like manner, remains in a condition of reparative inactivity for a period of uncertain duration, but which in the adult is rarely less than one week, or more than two. *Then* the proper ossifying plasma begins to flow. Prior to this time, therefore, the final adjustment of the fragments is unnecessary—a negative indication respecting the treatment of fracture analogous to that with regard to an incised wound. Simple dislocation is attended with far earlier disposition of the ruptured textures—ligamentous tissue, for example—to undergo reparation; suggesting, therefore, the more immediate reduction of dislocation. The primary importance, however, of muscular action in relation to this question, and as pertaining also to the early adjustment of fracture, cannot be overlooked.

The "kind" of Surgical assistance is obviously in each form of injury alike; the replacement of the severed and probably parts displaced, whether by incision, fracture, or dislocation. But the "least amount" of aid which may be requisite, subsequently, for the retention of the parts in apposition, is a purely pathological question. The reconnecting medium is, indeed, analogous to glue or cement let in between pieces of wood or broken china. But any such merely adhesive material sets or solidifies in a short time, and requires absolute rest not to disturb it in the moment of setting. The layer of lymph let in is vitally plastic, remaining *pliant* for some days or weeks, while it undergoes *organisation* in connexion with the textures, which thus regain their continuity.

This twofold peculiarity of the plastic process—"primary adhesion"—alike governs the pathological treatment of simple or incised wounds, fracture, and all other solutions of textural continuity which are thus allied. Hence the light dressings and easy retentive appliances of modern Surgery, which are now known to be amply sufficient for the apposition of parts during a process which, unlike a merely mechanical one, is not frustrated, or indeed disturbed, by any moderate degree of freedom, and which is self-adapting.

NOTES ON THE HISTORY OF SYPHILIS.

By GEORGE GASKOIN,
Surgeon, Chevalier of the Order of Christ, etc.

No. IV.

In our last communication we have drawn attention to the fact that Villalobos, in his "*Sumario de la Medeeina*," had classified ulcers of the genitals with other local affections, such as hernia and urethral discharge, finding a place for them in the body of the work, quite apart from the consideration of that head of disease known to us by the name of syphilis, but which he calls the "contagious and accursed bubas." This complaint he has treated of in a supplement or particular division of his book. The prolonged and earnest study which has been given to this branch of our art prevents our eulogising his description of syphilis as perfect and complete. The omission of all notice of affections of the mucous tract would at once be a sufficient reason for not doing so. The merit of Villalobos, however, must appear extraordinary when we consider the brief space of time which he enjoyed for the observation of a novel complaint, the labour and fatigue which ordinarily accompanies poetical composition, the publication of his work at his own expense so early as the year 1498, with the general perfection of its details. These considerations give him a title to high rank, if not to the very highest, among men distinguished in syphilography. At the same time we become aware of high poetic skill wedded to the rarest faculties of discernment. In his writings a subdued and mocking humour goes hand in hand with the expression of the most sensible views and the most practical teaching. With these merits, a certain leaning towards Galenic doctrine, inseparable from the epoch, may easily be forgiven him.

Villalobos marks pretty distinctly the period of time when syphilis began to attract universal attention, probably in the year 1495, or a little earlier. "The king and queen," he says, "were at Madrid, having subdued tyranny, established their fame, and governed their land in peace, when at this time "a new and very contagious disease" came as a curse from God on every nation and every people of whom we have knowledge, and with whom we hold communication."

> Fue una pestilencia no vista jamas
> en metro, ni en prosa, ni en sciencia ni estoria.

Although, for his part, he cannot see the justice of the sheep dying for the instruction of the shepherd, as was the case in David's reign (and in this he glances, perhaps, at the wicked Spanish Pope Alexander VI.), he takes the disease truly to be a visitation from God—some theologians say, for the new sin of schism and strife among his servants, and others from increase of luxury, but he is not misled as to the path of its transmission, for he sees the part immediately in fault is the part that suffers—

> la parte pecante es la parte dolente

He remarks that, however sceptical as to God's judgment, the men are become all at once so chaste they will not venture near a woman. The astrologers say it is the effect of Saturn and Mars scorching up the humour in our organs. Saturn is lord of heat in the humours, and Mars governs the parts of generation. When we try our lot in love and war, must we then go and have a peep at Saturn? Next comes the turn of the Physicians with their vain refinements, but he soon leads back to the point by concluding that it is a "scoundrel of a disease, and begins in the most rascally parts that we have."

As to the first manifestation of the complaint, he says:—

> Mas quando en tal miembro esta buba ó llaguita,
> majormente si es siu dolor y esta dura.

"But when in this member there is a speck or a little wound, it is generally painless, and it is hard."

Under the name of encordios (a plural noun) we find described that glandular pleiad which M. Ricord, in elegant phrase, distinguishes as characteristic of syphilis—in short, the multiple bubo.

> La causa por questa pasion começo
> por aquestos miembros que son vergonçosos;
> *es por quanto el higado en ingres echo,*
> *algunos escordios* de quien se escupio
> el dãno en aquestos vezinos famosos.

In these early times the liver was thought to be primarily diseased, and after an interval—which we call the stage of incubation—it was supposed to throw out swellings in the groins, and the sores in the genitals. The same explanation, our author says, serves for both—for the latter as well as for the former; but the private parts are always the first affected.

So in respect of that second interval of incubation which immediately precedes the manifestation of the secondaries, Villalobos distinguishes it plainly enough. The disease "begins in these parts," he says, "*many days* before the other symptoms appear."

> Por do en estos miembros asi a começado
> *muchos dias* antes que en otros lugares.

As regards the prodromata, which have lately received so much attention—those obscure symptoms of *malaise* which, in certain cases, usher in the secondaries—he is perfectly on a level with the modern school. "If you see a man," says the text, "with a hard, painless sore, with headache and a muddy complexion, stooping shoulders, complaining and heavy at his work, passing sleepless nights, or wandering and disturbed in his sleep, with dark stain about the mouth and eyelids, take note of that man; he will certainly have an eruption—'the Egyptian itch' is latent in him."

In this description who will say that Villalobos is not on a par with M. Bazin?

The diagnosis between syphilis and dartrous affection (the saphati of Avicenna), too often the precursor of leprosy, is exceedingly well drawn. Corrupted humours are not necessarily contagious, as seen in fevers. The pimples of saphati do not infect. You may say they do, but they do not. In saphati, also, the pimples are of a brighter red; in syphilis they are white and reddish-yellow, and less fugitive, ash-coloured or leaden in hue, green, black, or brown, like a linnet's back. Pruritus, he says, is "not so perfectly distinctive as has been asserted; it depends a good deal on the

nature of the secretion." And here again he betrays the bias of preconception. Did not Pharaoh, king of Egypt, have this disease, or some such thing, which barred his approach to Sarah, Abraham's wife? So we learn from Holy Writ. And thus some call it "the itch of Egypt;" and truly in "sarna" the humour is thin, while in "saphati" it is thick, and even in the "bubas," if thin and acrid, there will be pruritus—it depends on the humour. In fact, experience proves it; "we have seen some syphilitics always rasping themselves." Non-syphilitic eruptions affect the face and crown of the head chiefly; they are local in their nature, but the syphilitic eruptions display themselves high, low, and in every part. It is true that both kinds of disorder are chronic.

Y no menos di questas es cronico mal;

and as for the cure and treatment of syphilis (bubas), that is more tardy still—

Y en cura y remedios son muy mas tardias.

An increased amount of attention has been given lately, in the study of the complaint, to indurated glands at the back of the neck, and some modern observers have made capital out of them. Villalobos disperses their pretensions to the winds; under the popular name of *secas* and knots, he has already described these glandular obstructions.

La fruente y cabeça padesce como ellas
de *secas* y *nodos* di aquel gruesso humor.

You recognise the disease, he says, by cutaneous affection, accompanied by pain in the limbs; the eruptions affect the face and body, and are mostly dry in their character; but then there is the ulcerative form, and that is far worse to deal with. Whenever a dark squamous or scabby eruption begins to show itself, you may generally expect a terrible accompaniment of pain in the joints, "first in the shoulders and then in the knees." It is especially on the subject of these osteocopic pains that the author is eloquent. The pain, he says, descends to the tibia, a subtle heat penetrates its substance, its tissue (*telas*) is the seat of a degree of agony that is insupportable, and then, afterwards, a swelling and induration follows, or often a wound.

Mas quando ya vienen las negras postillas
dan luego un dolor de junturas terrible
primero en los hombros despues en rodillas
y dellas disciendese alas espinillas
y en sus *telas* haze un dolor impasible.

That weariness of the limbs which renders them almost useless, and which M. Ricord attributes to a change in the muscular tissue, is also remarked upon:—

en los braços y piernas *manqueza*
y los durijones dolor y dureza
y llagas que acuden a las espinillas.

We fear to have wearied our readers somewhat by these curiosities of Medical literature. One word more, and we have done with the subject. It is well known that visceral complications have lately engaged the attention of pathologists as a complication of syphilis. The celebrated German Virchow has drawn attention to changes in the spleen. Villalobos was quite at home in this part of the subject. "Feel," he says, "for the spleen, and see if it is hard; if so, it keeps up the pains." In that case treat it *according to the chapter on the spleen:* it will be good for the viscus, for the general health, and for the patient.

Mirad bien el baço no tenga dureza.

We shall now take leave of Villalobos, hoping that our readers may have obtained more confidence in their dealing with the "bubas" than he seems to have acquired; for, as he says, it escapes both cure and regimen, it is a disease which has no especial seat (*totius substantiæ*, as we call it)—

no tiene asiento en lugar especial—

and he has always found it a most terrible antagonist, who leaves you no room to boast—

muy brava y con quien no se alcança vitoria.

In this early author, then, we have found a complete account of syphilis, written when its European existence could be told off in months instead of years, described by him as a curious feature of the times, when it would have been the height of presumption to suppose that this monstrous birth could reach down unmodified to us.

We have thus far concerned ourselves with affirmative evidence in support of the Haytian or American origin of syphilis. A few words remain to be said as to the arguments that are opposed to it. There is a letter by Peter Martyr which would be decisive of the question if the date were correct. The authenticity of this date has been confuted by the eminent continental authors Pellicer, Muñoz, and Cantù. The editing of the letters of Peter Martyr must have been a most difficult task; twice attempted, it has been a mass of blundering. Neither Peter Martyr nor his correspondent Arias Barbosa were ever heard of in Spain till the year 1489; no disease called *morbus gallicus* was familiar to the lips of the Italians until after their invasion by the French. If Mr. Prescott has given an equivocal and hesitating support to this letter, it is that he wrote under recent impressions derived from the Italian publication known as the "Letters of Thiene," without having otherwise studied the subject. Ribeiro Sanchez honourably refused the support this epistle would have given to his argument, from the opinion he afterwards entertained as to its want of authenticity, although he was the first to introduce it into notice. Mr. Hallam, in his "History of European Literature," has been even too rough in his criticism on the information the letters of Peter Martyr convey, and the false chronology attending them. Our conclusion is that the date is as certainly erroneous as the fact is undeniable that the letter in question is misplaced in the Elzevir edition, according to the date attached to it.

The affirmation of Leo Africanus, of little weight in itself, that Africa received the taint of syphilis from the Jewish women soon after the date of their expulsion, must be understood in this manner:—With much of humanity in the intention, a Spanish fleet conveyed the Jewish families to Ercilla, a Christian settlement on the African continent. In their journey across the desert towards Fez, they were spoiled and many slain or ravished by the roving tribes of the Moors. Driven back in vast numbers on Ercilla, they were hastily baptised by the method of aspersion with the hyssop or mop,(a) as related by historians, and henceforth, formally reconciled with the church, they lived side by side with the Christians. It was probably through these new converts, or at any rate through the Christian settlements, that, at a somewhat later date than the expulsion of the Jews from Spain, syphilis found its way into Africa.

ON THE

USE OF STRYCHNINE IN EPILEPSY.

By WALTER TYRRELL, M.R.C.S.

Since my last paper, which was written early in May, and published in this journal May 18, 1867, several cases which were then in course of treatment have been completed, and several fresh ones have come under my care. As many of these present points confirming most strongly the opinions I then expressed, I feel no time should be lost in making these additional facts known to the Profession at large. I stated, at the end of my former paper, my belief that in "strychnine we possess a drug which will always control the excitability of the medulla oblongata, and restrain the attacks of convulsion." This opinion will, I think, be found to be remarkably strengthened by a perusal of the following cases. One most important fact is to be gathered from them—viz., that large doses of the drug must be given to produce the favourable results. In some of the cases the doses may appear formidable, but I feel confident that with care and watchfulness no ill effects need follow their administration to the epileptic. In such cases the system appears to lose its susceptibility; and the drug even in large doses produces none of the ordinary signs of disagreement. In no case have I seen it produce any mischievous excitement or irritation; and I may state that in one very severe case, still under treatment, I have carried the dose as high as one-fifth of a grain, taken twice daily, and this continued for nearly three weeks together, not only without its producing the slightest sign of irritation, but on the contrary the most marked diminution in the frequency and violence of the attacks. The following case, although the attacks had but recently come on, is interesting as showing how rapidly the beneficial effect of strychnine is often gained, no attacks having supervened after two doses (each of one-twelfth of a grain) had been taken.

H. R., aged 29, has been of late years much exposed to heat in China, Singapore, and Japan; had congestion of the liver in March, 1865; was invalided home in June, 1865; since which time he has been living at home, under treatment for enlargement of the liver, using Iodide of potassium and Iodine ointment locally. On May 22 of this year—a very cold snowy day—he imprudently stayed out all day fishing, and

(a) See Prescott's "Life of Ferdinand and Isabella," vol. i. p. 372. 1854.

at dinner that evening was seized with a violent epileptic fit, accompanied with great convulsion; this was followed by other attacks at the following intervals:—May 25, three fits, at intervals of one hour and a half; May 30, a fit in the evening; June 1, two fits, with six hours' interval; June 2, one fit in the evening. On June 5 he arrived in Malvern, and I prescribed for him one-twelfth of a grain of strychnia twice daily, allowing him to continue his potash in rather increased quantity. On the morning of the 6th he had three fits, during the first of which I was present; they were very convulsive, and produced an extremely prostrating effect on his mind—so much so, that, even after the ordinary stupor had passed off, he was unable to answer the simplest question without consideration and great hesitation. It is needless to give a daily report of this case. I increased the dose of the strychnine to one-eighth of a grain; he had no further attacks; and his return to health, both bodily and mental, although gradual, was most perfect. He is now at the seaside, and may be considered to all intents and purposes convalescent. In this case it was curious to observe how the inclination to an attack (which occurred several times during the early treatment of the case) yielded at once to a slight increase in the strength of the dose. I may say that in this case I found the use of ice to the nape very useful, insuring quiet sleep, and also allaying a frequent tendency to irritability.

In the following case, where the attacks were dependent on menstrual irregularity, the utility of combining the strychnine with remedies directed to the removal of the exciting cause will be apparent.

L. A., aged 17, a not unhealthy-looking girl, has never menstruated properly; has been subject to epilepsy for four years, the interval never being longer than one week; the attacks vary in intensity, a slight one being sooner followed by others. In this case I commenced with one-sixteenth of a grain of strychnia twice daily, gradually carried up to the tenth, at the same time giving her aloes and myrrh and assafœtida in pills twice daily. In this case a perfect immunity from attacks commenced with the treatment, and has continued up to the present day, a period of nearly three months. Although the menstrual irregularity has not entirely ceased, it is very much ameliorated. I used also in this case the cold affusion to the nape, coupling it at times with the application of warmth to the feet. This case, although not severe, is a type of a very prevalent form of the disorder, and shows how amenable such cases are to treatment. In another case somewhat similar, which is still under treatment. I have found the greatest benefit from the use of the bromide of potassium in combination with strychnia.

E. H., aged 14, a fair girl, partially paralysed on the left side. When two years old had what was called brain fever, during which she was insensible for a length of time; recovered, but had a return about two years ago. Since the first attack she has been subject to continued attacks of *petit mal*, sometimes five and six in the day. She turns slightly to the right; is slightly convulsed; sometimes is partially conscious during them, and tries to talk; sometimes she bites her tongue; her manner is silly, being fond of repeating lines of poetry, for which her memory is good. She has slight tenderness on pressure over the upper cervical vertebræ, and on percussing the atlas with the finger points she complains of pain at the epigastrium. The attacks sometimes come on during sleep. I will give here an extract from the diary kept by the parents. The patient came under my care in May, and I prescribed for her: ℞ Tinct. nucis vomicæ ʒiij., syr. aurantii ʒj. M., cap. ʒj. bis in die ex aquâ.

The following is the diary from May 29 up to the stoppage of the attacks:—

May 29.—Four fits in the day; two in the night.

30th.—No fits in the day, but eight in the night, two of them being severe.

31st.—One fit in the morning; eight again at night, but less severe.

June 1.—No fit in the day; four at night.

2nd.—No fit in the day; five at night.

3rd.—No fit in the day; four at night.

4th.—No fit in the day; three at night.

5th.—No fit in the day; three slight ones at night.

6th.—No fit in the day, and if any at night, very slight.

7th.—No fit in the day; only one observed at night.

8th.—No fits day or night.

9th.—No fits day or night.

10th.—No fit.

11th.—No fit.

12th.—No fit.

And so on. Since this date she has continued almost entirely free from attacks, but few having occurred, and those of an altered and much slighter character, which yield readily to a slightly increased dose of the strychnine.

Although the following case is still under treatment, yet I think a slight sketch of it cannot fail to be interesting as exhibiting the effects of strychnine in very severe convulsive epilepsy, and as also showing what large doses of the drug may be given with impunity. This patient, who has suffered for some years, is one of the severest cases of the disorder I have ever seen. I commenced treating him on the 15th June last, and as the case is still under treatment, I will merely give a comparative table of the number of his attacks during May of the present year and July. During the former month he was under no treatment of any kind. During July he was taking strychnine in the doses appended to the table. The attacks, which occurred almost exclusively at night, were most violently convulsive. They were much influenced by atmospheric changes, heavy thundery weather invariably increasing both their number and severity. Thus July would, under ordinary circumstances, be his most unfavourable month. In addition to the strychnine during part of the month, he was using cold affusion to the nape, and ice to the occiput during the night.

No Treatment.

May	1,	1867	.	.	2 fits	May	17,	1867	. . 1 fit
,,	2,	,,	.	.	1 ,,	,,	18,	,,	. . 0 ,,
,,	3,	,,	.	.	2 ,,	,,	19,	,,	. . 0 ,,
,,	4,	,,	.	.	3 ,,	,,	20,	,,	. . 0 ,,
,,	5,	,,	.	.	2 ,,	,,	21,	,,	. . 1 ,,
,,	6,	,,	.	.	3 ,,	,,	22,	,,	. . 0 ,,
,,	7,	,,	.	.	2 ,,	,,	23,	,,	. . 2 ,,
,,	8,	,,	.	.	2 ,,	,,	24,	,,	. . 2 ,,
,,	9,	,,	.	.	1 ,,	,,	25,	,,	. . 3 ,,
,,	10,	,,	.	.	0 ,,	,,	26,	,,	. . 2 ,,
,,	11,	,,	.	.	2 ,,	,,	27,	,,	. . 2 ,,
,,	12,	,,	.	.	2 ,,	,,	28,	,,	. . 1 ,,
,,	13,	,,	.	.	4 ,,	,,	29,	,,	. . 2 ,,
,,	14,	,,	.	.	3 ,,	,,	30,	,,	. . 0 ,,
,,	15,	,,	.	.	3 ,,	,,	31,	,,	. . 0 ,,
,,	16,	,,	.	.	3 ,,				

Under Strychnine.

				Fits.					Fits.	
July	1,	1867		0	⅛ gr.	July	16,	1867	3	
,,	2,	,,		1	very slight	,,	17,	,,	0	½ gr.
,,	3,	,,		1	very slight, no con.	,,	18,	,,	0	
						,,	19,	,,	0	
,,	4,	,,		0		,,	20,	,,	0	
,,	5,	,,		0		,,	21,	,,	0	
,,	6,	,,		0		,,	22,	,,	0	
,,	7,	,,		1		,,	23,	,,	0	
,,	8,	,,		2		,,	24,	,,	0	
,,	9,	,,		0	⅛ gr.	,,	25,	,,	0	
,,	10,	,,		0		,,	26,	,,	0	
,,	11,	,,		0		,,	27,	,,	1	
,,	12,	,,		0		,,	28,	,,	1	
,,	13,	,,		0		,,	29,	,,	0	
,,	14,	,,		1	⅛ gr.	,,	30,	,,	0	
,,	15,	,,		0		,,	31,	,,	0	

On July 14, owing to a misunderstanding, he only had $\frac{1}{12}$th of a grain instead of $\frac{1}{8}$th. It will be seen that four fits followed in rapid succession. I think this table shows the power which strychnine possesses in restraining the epileptic attacks. I may add that, although so remarkably lessened in number, they were not at all increased in severity, but, on the contrary, were less convulsive. The above table gives the following results:—

May.		July.	
No. of attacks.	Nights free.	No. of attacks.	Nights free.
51	7	11	23

It will be observed that during the latter half of the month the dose of strychnine was as high as one-fifth of a grain, taken twice daily, and this without its producing the slightest sign of excitement or irritation. In combination with the strychnine the patient is taking the infusion of digitalis.

In conclusion, I would reiterate the summing up of my last paper—"That in strychnine we possess a drug which will *always* control the excitability of the medulla oblongata and prevent convulsions, but that to cure the disease we must also remove the exciting cause."

Malvern.

HYDROPHOBIA. — APPLICATION OF ICE TO THE SPINE.

By NATHANIEL ALCOCK,
Assistant-Surgeon 35th Regiment.

I OFFER the following case for publication, as the result of the use of ice to the spine seemed to be that, for a short time, the actual muscular spasms were allayed, while the nervous susceptibility progressed simultaneously uncontrolled.

On the evening of April 11, 1866, three children, while playing together on a bed in a barrack-room, were bitten by a pet dog, which wounded them in quick succession, and ran from the house. In about an hour and a half afterwards, when brought to me, I cauterised the wounds. The two eldest, boys, were each cut in the leg, and were unprotected by trousers. The third, a girl 6 years of age, the subsequent victim of the disease, was but slightly scratched on the chin.

On May 12, thirty-one days having elapsed, I was asked to see the child, who was said to have been ailing for two days, having been disinclined to take food, and restless at night, "waking every hour with a start." She then lay on the front of the body with her face buried in the pillow. She was restless and irritable, sighing deeply at short intervals; the skin was warm and rather dry, pupils dilated, and the tongue white in the centre, with red tip and edges. She complained of pain in the back, but had previously referred it to the throat. When forced to drink, she seized the cup with an effort, jerked it to her mouth, but squirted out the water in the attempt to swallow.

At 11.30 a.m. ice was applied in one of Dr. Chapman's bags to the whole length of the spine. At the expiration of an hour and a half sighing was less frequent. The spontaneous spasms were apparently controlled to some extent, but the nervous susceptibility was keener, as a convulsion was induced by the slightest sound or motion, and the force of the fit, thus excited, was greater than before. The extremities were very hot. The pulse varied from 134 to 138, and was very weak. Hoping to deaden the nervous irritability a little, I injected subcutaneously $\frac{1}{3}$ gr. acetate of morphia, and directed the ice to be continued every alternate half-hour.

Visiting her two hours and a half afterwards, I found that she had slept a little, but started up in a fit every fifteen or twenty minutes, lapsing into a drowsy state in the intervals. Gave tinct. opii ♏x. as an enema, and continued the ice.

At 10 p.m. she was going from bad to worse. Gave tinct. opii ♏xij. as an enema. Ordered beef-tea and wine enema every two hours, and to continue the ice.

At 1 a.m. she had what the parents supposed to be a change for the better, and began to swallow water, wine, ice, etc., the act being preceded by a struggle and shudder, showing that it was accomplished during the relaxation from a fit, the full manifestation of which was prevented by exhaustion.

Every effort was made to support the strength, and ice applied throughout the day. She continued to be able to swallow, but became weaker every hour, till 7.30 p.m., when she died, having been conscious and collected up to a short time previously.

On the following day I excised the cicatrices from the two other children who had been bitten by the same dog. They have up to the present—one year and two months—escaped the disease. The dog I myself shot, having tied him up for two days to convince myself of his being rabid.

Landour, India.

LOCK HOSPITAL AT THE CURRAGH.—The site for this Hospital, which was generously granted by his Grace the Duke of Leinster, has, we learn, been approved of by the War Office authorities. We should be glad, therefore, to know why the operations for its erection are delayed. The institution will be of the greatest possible advantage, and we see no reason why the works should not be now in progress.

CHILDREN'S HOSPITAL AT BERCK-SUR-MER. —This institution is now in course of construction, and promises to be both a well-contrived and ornamental building. It has been very carefully examined by M. Husson, the Director-General *d'Assistance Publique*, who professes his satisfaction with the progress of the work. The ground covers more than five acres, and the architect is M. Lavezzari. The building was begun in March last, and will, it is thought, be completed in about two years.

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SATURDAY, AUGUST 24, 1867.

FOOD FOR BABIES.

THE difference between a cholera year and a year which (as we hope we may say of 1867) is not a cholera year, is well shown by the table of ages at death. In a cholera year, the deaths from bowel disorder of all sorts occur at all ages; and though infants and the aged are the chief sufferers, yet men and women in the prime of life are not exempt. In a non-cholera year the deaths from diarrhœa are almost exclusively those of infants, and if there be a few in middle life, or even of the aged, they are deaths of persons already exhausted by previous illness or cachexia.

In the week ending August 3, 1867, 209 children and 8 adults died of diarrhœa in London, and in the following week 177 children and 12 adults. "The proportion of the deaths of infants," says the Registrar-General, "is startling; many of these young lives would be saved if proper attention were paid to diet." Let us act on this hint of the ever-vigilant guardian and chronicler of the public health, and say a few words on babies' diet, and more particularly on some modern additions to their bill of fare.

We may say this, at starting, that bad diet is but one cause out of many of infantile mortality in hot weather. There is, first of all, the heat itself, which is directly killing to a large number of delicate, prematurely born, and tuberculous children. Secondly, there is the want of fresh bracing air, and the presence of the various causes which contaminate the air of towns; and we must say that pure air is as great a necessity for young babies in hot weather as better diet. We need not dwell on washing, clean clothes, and careful tending altogether. Thirdly, there is the diet; and in discussing this, we must not forget the effect of heat in spoiling milk and other ingredients in the artificial food of children, and in necessitating a cleanliness and care against fermentation which the poor and careless cannot or will not attain to.

Happy is the babe who, born of robust parents, sucks its entire nourishment for some weeks from the balmy bosom of its mother! But forasmuch as many women cannot suckle at all, and very few can do so entirely, or are justified in attempting it, some artificial food is necessary; and as no one kind of food will suit all babies, the young Practitioner is wise who keeps a good long list at the tip of his tongue.

Let us say, though, that any milkless mother who has a delicate baby to bring up, will do well to secure for it what some would call the hireling bosom of a fallen woman, but what, in more charitable language, may be called the services of some stout young countrywoman who has been a little too much in a hurry, and has had her baby before her wedding-ring. By this arrangement three lives are saved. The nurseling is saved from death by inanition; the wetnurse recovers her "character" and gets a fresh start in life; and she need not drown or starve her own baby.

But where a wetnurse is not thought necessary, or cannot be had, we fall back upon animal milk, with or without vegetable preparations—whether of cereal grain or of separated starch, or of flour treated by malt to insure the conversion of the starch into sugar.

Of milk, we have that of the ass, goat, and cow. Asses' milk is by general consent the best substitute for the woman's for most delicate children; and, dear as it is, it is well worth the money. The goat's is a rich milk with a strong curd, and only adapted for robust children. The milk of the cow is, of course, the staple. And whilst for general purposes it is quite right that milk should be brought from any distant part of the country, it must be confessed that a few cows should be kept in town in hot weather, that their milk may reach the baby part of the population fresh, unshaken, and just as yielded by the animal. But cows' milk is too rich in curd for the human baby, whose muscular movements are almost confined to breathing, crying, and the heart's action. So it must be thinned, and the simplest way is the common one of adding an equal part of water (the water being gradually diminished as the child grows older) and a small quantity of white sugar. It is a refinement to use the sugar of milk, instead of common cane sugar, but whether there is anything gained we never could satisfy ourselves.

The test of any kind of baby's food is found in the fact that the child thrives—that it is satisfied after its meals, not subject to fits of pain in the stomach and flatulence, nor yet to fits of colic in the bowels—and that the residuum, which is generally produced upon a napkin for inspection, does not show undigested food. All these things are self-evident. A child ought regularly to grow, to be plump, and to gain in weight every week, and if it do not, something is wrong. Secondly, the child ought to be satisfied and go to sleep after its food; but here the junior Practitioner ought to be aware of one physiological fact—when a child is in pain in the abdominal organs, it often displays insatiable hunger, has a tendency to suck greedily, and this though the stomach and bowels may be loaded with undigested food. Ignorant nurses kill many a child by inattention to this point. The child cries after food; therefore they say the food is not good enough, "the milk does not satisfy," etc., and forthwith they give the child some half-solid pap, and dose the mother with over-rich food and alcohol. A purgative dose of oil is the best remedy when a baby is unreasonably hungry after food; castor oil is generally used, but any oil or soft fat will answer the purpose. The old custom of giving a bit of the fat of pig is founded on reason and experience. Lastly, the practical fact remains that no undigested food ought to be found in a baby's napkin. Any mother may be taught that lumps of curd and masses of undigested starch can give the child no nourishment, but decompose in the bowels, and cause first pain, next diarrhœa. A healthy baby's napkin should not be offensive—of course, it has a faint peculiar odour, but certainly it does not stink, and if it do, either improper food has been given, or proper food has not been digested.

In other cases, in order to diminish the proportion of curd, it is useful to give *cream* diluted with new milk and water; and, to prevent the curd of cows' milk from coalescing into hard lumps in the stomach and passing undigested, the milk may not only be diluted with water, but with effervescing soda-water (this is called artificial asses' milk) or potass-water or lime-water. Sometimes a very little of the solution of magnesia is added.

But this purpose (*i.e.*, the making the curd softer and more digestible) is generally effected by mixing it with cereal food or the starches. Theoretically speaking, we do not want the nitrogenous elements of the cereals, because the cow's milk contains enough of them. Hence, arrowroot or sago may suffice, if it be understood that the child is to live upon the milk, and that these starchy elements are superadded to modify the milk, and not to be substitutes for it. Still, general experience is in favour of some cereal. Barley-water made from pearl barley, and mixed with an equal part of milk, is an admirable food for most children. Robinson's patent barley deserves praise. Oatmeal gruel and milk agrees well with the robust. Brown and Polson's preparation of maize, and the maizena, seem favourite preparations. On the whole, however, wheat tends to displace the other cereals. The flour of wheat is often baked or boiled, and when so cooked is boiled afresh with water and milk. Or it is made into biscuits, of which Robb's, Lemann's, the Norwich knobs, "tops and bottoms," and rusks, are popular samples; or into a farinaceous food—that is, a powder composed of wheat flour, or biscuit, with or without admixture of other cereals, and already acted on by heat, so as to require little or no cooking (Hard's, Neave's, etc., etc.)

This is the place to notice "Liebig's soup," a compound of milk, wheaten flour, and malt, with a small quantity of bicarbonate of potass. The object of the malt is to convert the starch of the wheat into sugar, and so to save the stomach the trouble of that process; whilst the cow's milk is enriched with the phosphates of the wheat and the added alkali. The thanks of society at large are due to Liebig, not only for the care and patience with which he has worked this idea out, and the liberality with which he published it, but likewise for the impetus which it has given to the study of the whole subject of infant food in connexion with mortality.

The original recipe prescribes ½ oz. of wheaten flour, ½ oz. of ground malt, and 7½ gr. of bicarbonate of potash, to be well mixed in 1 oz. of water; then 5 oz. cows' milk are added, the whole is heated gently till it thickens; then it is removed from the fire, stirred till the starch is converted into sugar, as indicated by the liquid becoming thin, again boiled and stirred for some minutes, and lastly strained. For use, this requires to be much diluted for young babies, less for older ones.

English chemists were not slow to avail themselves of Professor Liebig's instructions, and many eminent houses, as Squire, Hooper, Van Abbott, etc., began to supply the ingredients ready mixed for use. But so far as Liebig's food, prepared strictly according to the philosopher's directions, is concerned, we must mention with great praise a philanthropic society, of which the Baroness von Lersner Ebersburg is the motive power, and which, through the agency of Mr. Mellin, the eminent chemist in Tichborne-street, actually manufactures this food, and sends it out, warm and fresh, to any reasonable distance, and at a price far less than it can be prepared for at home, if labour and fire are added to the cost of materials.

As for results. We believe that of any six infants one would refuse to swallow it; one would take it without benefit; but that the remaining two-thirds would take it greedily and thrive on it. We have known it put a stop to so many of the miseries arising from undigested or indigestible food, that it has, we think, already earned for itself a permanent place. What form of it will be ultimately the favourite is another question.

The objections to Liebig's food in its common form are, first, the time, trouble, and nicety—it cannot be prepared in less than twenty minutes, and not every nursemaid or mother has the intelligence sufficient. Secondly, there is the considerable amount of indigestible husk, often very difficult to separate by straining, and consisting of spicula that look very formidable to any tender mucous membrane. Thirdly, as a theoretical objection, we mention its too saccharine nature and the absence of fat.

The first objection has been met by Savory and Moore, who have put together and prepared the ingredients in such a way that they only need the addition of water and milk, and no straining nor boiling. We can tell from our own experience that this preparation once tried becomes a favourite in the nursery, and that children thrive well on it. Mr. Mellin's

preparation, if it can be got, of course avoids all trouble of cooking; and we may say that the malt he uses is most scrupulously cleansed from husk. There is also to be procured at Mr. Van Abbott's a preparation called "Liebig's Food for Infants concentrated," the invention of M. Ed. Lœflund, chemist, of Stuttgart; it is a thick syrup, containing a concentrated solution of the wheat and malt elements. It has, when mixed with milk in due proportion, a sweet, somewhat empyreumatic, bitter taste, and this is the general character of the food, however prepared; but there is a distinct acid treacly reaction in Mr. Lœflund's extract. Mr. Mellin has made an extract in the form of granular powder, soluble in cold water, very palatable, free from acidity, and much more portable than Lœflund's syrup. Lastly, we must notice the very ingenious malt biscuits made by Spiking, of Dover-street; these contain the malt and wheaten flour in the form of a biscuit; of course they are portable, and keep any time, and require no more cooking than Robb's or any other nursery biscuit. Their peculiarity, due to the action of the malt, is, that when mixed with milk-and-water they dissolve into a smooth, custard-like mass, with nothing lumpy or pasty about them. We have known them eagerly used by adults troubled with great irritation of stomach and bowels. They make capital imitation of custard.

We have now, we trust, set forth a pretty general view of infants' food, and shall add but three or four practical hints: 1. The advantage of adding cream from time to time, especially if the baby is constipated. Want of fat is the cardinal defect in Liebig's soup. 2. The expediency of adding a small quantity of some aromatic water to all infants' food, such as dill, anise, etc. There is a very popular food in some counties, consisting of equal parts of barley water and milk with one teaspoonful of good brandy to the pint. Bad for the babies' livers, some would say; but no harm is found in practice. 3. The expediency of giving delicate children small quantities of pure gravy or beef-tea sweetened, or a few grains of raw meat ground to a pulp. If these agree, a child is almost safe. 4. No one kind of food can agree with all children. It has provoked us to see children dying on a diet which did not suit them, without an effort to shift and combine various elements till the right thing could be found. 5. The importance of teaching the poor that food for babies should be *thin*, and that a thin food may be more nutritious than a thick one. *Certes*, a modern baby who sucks a good creamy milk and water or Liebig's soup through Maw's bottle may bless itself that it was not born in days when thick currant porridge would have been crammed down its throat with a spoon.

THE SOURCE OF MUSCULAR POWER.

The specious and brilliant hypothesis of Liebig which traced the origin of all muscular power exclusively to the oxidation, within its own fibres, of the muscular tissue itself, although it has never wanted opponents, was only finally demolished by the ingenious experiment of Fick and Wislicenus described in the *Medical Times and Gazette* of October 27, 1866. With it fell all the elaborate arguments and calculations which Haughton and Playfair, to say nothing of previous writers, had founded upon it, and a new hypothesis became necessary. Fick and Wislicenus felt themselves justified in adopting an idea which had been suggested in 1861 by Moritz Traube,(a) and asserted that all the motive power of the body was derived from the oxidation of non-nitrogenous substances, such as fats and carbohydrates, and that tissue-oxidation contributed nothing whatever to it. Haidenhain,(b) in 1864, had maintained a similar view, while Donders,(c) although deprecating the length to which Traube carried his hypothesis, agreed with him in asserting the insufficiency of tissue-oxidation to account for the mechanical effect produced. It is, however, nearly certain, from the experiments of Savory upon rats,(d) that muscular work may be done by the oxidation, if not of muscular tissue, at any rate of albuminous compounds, for Savory found that rats would remain in health for weeks when fed on purely nitrogenous food. Frankland therefore, in the valuable lecture to which we referred in a previous number,(e) refused his assent to the dogmatic conclusion of Traube and Fick and Wislicenus, and adopted substantially that of Donders—namely, that while fats and carbohydrates supply the chief part of the force expended, nitrogenous substances also, "inasmuch as they are combustible," may contribute to the effect. He defined the modern point of divergence from Liebig very clearly in these words:—"The food does not require to become organised tissue before its metamorphosis can be rendered available for muscular power; its digestion and assimilation into the circulating fluid—the blood—being all that is necessary for this purpose." To these just and moderate statements most physiologists would now, we think, subscribe.

But there is one assumption which is found in nearly all the writings upon this subject. It was first made by Liebig, to whose theory of muscular action it was essential, and it has been repeated not only by his followers who had the same reason for adopting it, but also, curiously enough, by Traube, Donders, and Fick, who have opposed him. It may be shortly stated in these terms. The oxygen, held in loose chemical combination in the arterial blood corpuscle, does, on its arrival in the capillary of a muscle, leave its combination, and, passing into solution in the liquor sanguinis, finally exudes through the wall of the capillary, and diffuses itself in the liquid form through the tissue. So far Liebig and Traube are in agreement, but from this point their theories diverge—Liebig maintaining that this oxygen combines directly with the organised tissue, while his opponents allege that it employs itself in the oxidation of non-nitrogenous bodies. Traube, indeed, goes so far as to suppose that the muscular fibres play the part of carriers between the dissolved oxygen and the fats and carbohydrates, first entering into loose combination with the former and then imparting it to the latter; but we need hardly remark that this is a groundless and gratuitous hypothesis.

Liebig's assumption was, however, opposed by the clear-sighted Mayer as long ago as 1845, in his now celebrated essay on organic motion.(f) His arguments have been taken up and somewhat extended by a recent writer on the subject,(g) and an opposite theory is thus started, which avers that the oxidation which supplies the motive power to the muscles is effected, not in the tissue, but in the blood itself. The following is the most powerful of the arguments with which Mayer supported his view. If the oxidation takes place in the tissue, it is evident that the fluid which undoubtedly exudes through the thin walls of the capillaries for the purpose of nourishing the tissues, must take with it in solution the necessary oxygen. But the fluid so exuded is returned to the blood as lymph, and the quantity of lymph, Mayer urged, might therefore be taken as affording a measure of the quantity of fluid exuded in a given time. The best estimate at his disposal of the quantity of the lymph was that of Majendie, and, acting upon this, he calculated that the fluid exuded in one revolution of the blood could never amount to one per cent. of its total volume. All the blood requires fresh oxygen on its return to the heart, and he therefore argued that at least 99 per cent. of the oxidation effected in the course of one revolution must have taken place inside the blood-vessels. But it is evident that several objections may be made to the

(a) Virchow's *Archiv*, xxi. 386.

(b) "Mechanische Leistung Wärmeentwickelung und Stoffumsatz bei der Muskelthätigkeit."

(c) See *Medical Times and Gazette*, November 17, 1866.

(d) *Proceedings of the Royal Society*, xii. 121 (1862).

(e) *Medical Times and Gazette*, October 27, 1866.

(f) "Die Organische Bewegung in ihrem Zusammenhange mit dem Stoffwechsel."

(g) C. W. Heaton, "On the Function of the Blood in Muscular Work." *Philosophical Magazine*, May, 1867.

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argument in this form. In the first place it is by no means certain that all the fluid exuded returns to the blood through the lymphatics. It is highly probable, indeed, that the greater part does so return, because the escape of the fluid through the walls of the capillaries is not, as some people seem to imagine, an example of ordinary liquid diffusion. On the contrary, Graham has shown that the chief constituents of blood, being colloidal, have but the very slightest tendency to pass through moist membranes. The phenomenon in question is no doubt due mainly to the circumstances of pressure under which the blood flows, and that pressure would not only tend to prevent a return, but would probably assist in forcing the exuded fluid onwards into the lymphatics. But still it is very possible that some may return direct, and it is therefore wise, in estimating the amount of exudate, not only to calculate upon a maximum quantity of lymph, but even to multiply this quantity by 3. Thus, if the lymph be taken as amounting to 30 lbs. in 24 hours, we may safely assert that the fluid exuded through the capillary walls in the same time cannot be more than 90 lbs., and is probably much less.

A still more formidable objection to Mayer's argument may however, be adduced. It is clear that the fact of the blood having lost a great part of its oxygen before its return to the heart is no proof that oxidation has taken place in the blood. It may equally well be explained by asserting that the oxygen has left the blood and passed out into the tissues—in fact, that, though the quantity of fluid exuded has been small, it has yet taken enough oxygen with it to do the work of the muscles. To this objection a direct and final answer may be given, for it is easy to calculate the extreme quantity of oxygen which could, on any supposition, pass out in solution in 90 lbs. of exudate. There is no reason to suppose that the exudate could dissolve more oxygen than water can; but even if we assume the utmost, and suppose that it carries with it as high a percentage of oxygen as the arterial corpuscles themselves contain when charged to their highest limit with oxygen—a supposition which is manifestly absurd—the 90 lbs. of exudate would contain something less than an ounce of oxygen. Such a quantity of oxygen, whether it were employed in the oxidation of muscle-fibres, or fat, or sugar, could not yield force enough to account for one-sixth of the daily work of the muscles, even if that work be reduced to a minimum.

Hence it would seem to be proved that the greater part, at any rate, of the force which contracts the muscles is generated inside the blood-vessels, and it is simpler to assume that all the force arises in this way. Both nitrogenous and non-nitrogenous articles of food may be oxidised in the blood, and either may therefore be a source of muscular power, although it is probable that, under normal circumstances, the latter contribute the highest quota.

How are we, then, to account for the undoubted fact that an increase of muscular work is always attended with increased metamorphosis, and for the contingent fact recently established beyond the possibility of doubt by the elaborate experiments of Dr. Parkes? (h) We must, in the first place, admit that the disintegration of muscular tissue is not an immediate oxidation, but a decomposition into simpler substances, such as the fatty acids, lactic acid, sugar, urea, uric acid, creatin, and leucin, most of which are capable of oxidation. All of them which are capable of it undergo this oxidation after their passage into the blood, and in this sense the oxidation of muscular tissue does probably contribute to muscular work. How force liberated inside the blood is converted into muscular work outside, we do not certainly know. It is, in some mysterious way, regulated by the nerves, and is very possibly transmitted in the form of muscular currents; but we must be cautious in speculations upon this point. One thing, however, is certain: the force transmitted from the blood-vessel for the contraction of the muscle must be at least twice as great as that finally employed as work, and it is no very wild hypothesis to suppose that the surplus force, whether it exist as a muscular current or as some other mode of motion, may be spent in decomposing a portion of the tissue, and thus be stored up again for future use.

(h) *Medical Times and Gazette*, April 13, 1867.

THE WEEK.

THE CHOLERA APPROACHES.

As we anticipated, the cholera continues to prove extremely destructive, and steadily increases its area. The latest intelligence announces its presence in Rotterdam, where it was raging with more than its usual virulence. News from various parts of Southern Europe and America tells the same tale. The centre of the epidemic is still Italy. In Albano the mortality has been so great that all who were able fled, and the town may be looked on as almost depopulated. Palermo and Genoa, too, still suffer. It is strange that Piedmont, which was attacked subsequently to Lombardy, has been delivered from the epidemic before it. This is, of course, to some extent attributable to the healthier conditions of soil and climate. Not the least remarkable feature of this epidemic is the panic which appears in most instances to have seized upon the people, leading them to the commission of atrocities of which in their calmer moments they would never have been guilty. When the rumours spread in Naples of the invasion of the epidemic, the people rushed *en masse* to the house of a poor fortune-teller named the Sibyl, and massacred her, cutting her body into small pieces. From *L'Italie* we learn that a similar occurrence took place at Frosineto. A certain family were thought to have been instrumental in spreading the disease, and the inhabitants determined to avenge their dead relatives. They went to the house at night, and brutally murdered no less than five persons. The impression seems also to prevail that the wells are poisoned. This is about the most rational and well-founded fear which has been ascertained. The water is undoubtedly poisoned, but not as the imaginative and suspicious Italians are prone to believe. In India cholera is reported at Simla and Murree, and a few cases have occurred in the 109th Regiment stationed at Poona. In America cholera has been terribly active in some of the Western cities. It would seem to have originated simultaneously in Texas and Tennessee, and in some of the towns of Kansas it has also made sad havoc, Ellsworth being said to have been almost depopulated by the disease. All these facts point to the probable further extension of the epidemic. Let us hope it may not reach our shores, but let us be prepared and ready to do battle with it should it make its way to England.

SEWER FLOODS IN BELGRAVIA.

"A Sufferer," in the *Times* of Wednesday, again complains of the nuisance to which we have already referred as periodically occurring in Belgravia. This gentleman states that his house has been flooded three times within the last three months, and has suffered so severely that he has instructed his servants to regularly watch the rise and fall of the barometer, and to prepare accordingly. He complains of the Sewers Commission as being at fault, but beyond trapping the drains what can they do? Water will obey the laws of specific gravity, and if people elect to live below high-water mark they must take the consequences. It is certainly to be regretted that the most fashionable quarter in London should be so situated, yet so it is. Nor does the mischief cease where it appears to do. It is no doubt sufficiently annoying to have one's house flooded with the most abominable refuse imaginable, but when the flood subsides, and the water has passed away, what is left behind? Matters which no care or cleansing can remove; the foundations of the house are sapped, the ground on which it stands is impregnated with sewage, and in every crevice are left behind particles of germinal matter capable, if a proper nidus

be found for them, of giving rise to zymotic disease, the intensity of which would be increased tenfold by the gradually debilitating process the inmates have already undergone from its presence. Cholera is gradually extending its ravages; if it reach this country, how will it find the inmates of such dwellings prepared?

CHANGE OF THE MODE OF ELECTING MEDICAL OFFICERS AT THE CHILDREN'S HOSPITAL, BIRMINGHAM.

It has often been a matter of regret that the constituencies of our Hospital appointments are so large, entailing as this does great trouble and expense to the successful candidate, and to the unsuccessful involving in some instances well-nigh ruinous consequences. The indignities to which men of high breeding and talent are occasionally subjected by vulgar and illiterate electors are also well-nigh unbearable; who does not know the story of the grocer and the figs? To remedy this grave defect it has been resolved to constitute an electoral committee in connexion with the above-named institution, the committee to consist of that of management, the Medical staff, the principal officers of the institution, a select number of governors, and certain of the other Medical members of the community. Into the details of the proposed mode of election it is needless to enter, but it is evident that the scheme, although not entirely obviating possible objections, promises to work more satisfactorily than the plan at present in operation.

THE "MARTINET" IN SCOTLAND-YARD.

Many as are the sneers against the "force," our police is, nevertheless, a well-organised and useful body, and it is clear that anything, in the way of overdrill and pipeclay, that tends to limit their free action and diminish their skill as thief-catchers is equivalent to lessening their real efficiency. Yet we regret to find that the tendency of the authorities leans towards increasing the military rather than the civil powers of policemen. This we see in the excessive and, we may say, cruel drill to which the men have been for some time past subjected, and for which both their previous training and the nature of their duties unfit them. Quite recently a large body of police was marched to Wellington Barracks, there to undergo what is known as "skeleton battalion drill." The character of the evolutions was so distressing that one man was removed by his comrades in a fainting condition, and several others appeared to suffer from great prostration. These facts would not of themselves call for any strong expression of censure; but when we add that the men were sent direct from drill upon their various beats, the public will agree with us in thinking that the circumstances demand explanation. If it must be that the police should have a military training, let the men be permitted to substitute a drill for a day's duty, and not be treated in the fashion which now seems to find favour with the authorities.

GENTEEL POVERTY AND DISEASE.

It is De Quincey, we believe, who remarks, in his "Opium Eater," that the stream of London charity, though very broad, runs deep, and is not easily to be reached. Perhaps there is no class of persons who more deserve to be the objects of our pity than that very numerous one composed of ladies leading a life of what we may term genteel starvation. It is comparatively easy for the very poor to obtain the benefits of our charitable institutions, and it too often happens that our Hospitals contribute to the relief of those who are not poor, and who ought, if they had ordinary self-respect and uprightness, to be paying a Professional man for the advice they obtain gratuitously. The genteel poor—and notably governesses—taste more frequently of the waters of affliction than of the stream of our London charity. They have at one time had the kindly nurture of a good home, a good education, and they still enjoy a nominally good social position. Members of our Profession are well acquainted with them. The nature of their duties, their sedentary habits, anxieties, and often the insufficiency of their nourishment, all tend to render them delicate in health and susceptible to disease. They are not infrequently to be found in Professional consulting-rooms, where, impelled by feelings of delicacy and pride, they tender the guinea, which the Physician has not the heart to accept. Almost no charity is open to those who are compelled to starve and suffer in silk, while, as a class, there are none who need it more. The supply of governesses already greatly exceeds the demand, and that supply continues to increase enormously; how enormously may be inferred from a statement we heard lately—viz., that the number of German governesses alone known at one London institution was 4000! There could be no more truly kind and charitable work than that of creating diversities of employment for these poor creatures on the one hand, and for devising some plan for their relief during sickness on the other.

TWO MEDICO-LEGAL CASES.

A French case, of considerable interest from a Medico-legal point of view, is this week reported in the newspapers, the victim being a well-known member of that class it is now the fashion to term *anonymous*, the murderess, as too often happens, her pretended friend. Into the details of the case it is not necessary to go, beyond pointing out the fact that Mdme. Frigard had forged the name of the murdered woman, and, being still pressed for money at the time of the murder, repeated the forgery immediately after. The two went out for a walk into the forest at Fontainebleau, but Mdme. Frigard returned without Mdme. Mertens, the body of the latter only being found some days after, when decomposition had already set in. Had it been in England, the nearest Medical man would have been called in, and he would in all probability have replied that it was useless to interfere with a body in such a state of decomposition. But our French neighbours are not so squeamish; the body was examined, and, from the condition of the lungs, it was concluded that the deceased had been suffocated. The two had breakfasted together shortly before setting out for their walk, and as the body was found in an easy and unconstrained attitude, it may be supposed that she was attacked while asleep. A large ecchymosis was found on the anterior wall of the stomach, from which and from other circumstances it was concluded that the murderess had knelt on the deceased, and at the same time choked her. Some of the newspapers have caught up the cry that danger attends a more generally diffused knowledge of this mode of committing murder. If it will at all calm their anxiety, we can assure them that this plan has long been well known under the name of "burking"—having been introduced by the well-known miscreants Burke and Hare. With regard to another case—that of the man Wiggins, accused of the murder of his paramour—we are bound to animadvert on the remissness of the Medical man who examined the body in the first instance, in actually coming before the jury unable to state whether there were any cuts on the hands of the deceased or no. It cannot be too well understood that the examination of the body in all such cases should be of the most thorough description. Again, with regard to the wound in the throat, this gentleman described it as presenting an appearance of the knife having been turned round in it. Now, without impugning the value of his testimony in the slightest degree, we must state that women rarely commit suicide by the knife or hanging, still more rarely by fire-arms; their favourite methods are by drowning or by poison. When they use the knife, it is generally done unskilfully, and often irresolutely. In one case we remember, the whole of the lower portion of the neck was hacked and jagged in every direction, although the wound barely reached the jugular vein. It is rash to conclude, from a jagged aspect, that a knife has been turned round in the wound.

MEDICAL ARBITRATION IN CASES OF RAILWAY INJURIES.

At Bristol, on Monday, the 19th inst., a case was tried which, to our mind, suggests very grave reflections as to the position occupied by the Medical referees of a railway company. That railway companies should have Medical officers on whose judgment and discretion they can rely for reference, if individuals who have sustained injury at the hands of their servants apply for recompense, is quite right. They are perfectly entitled to make every endeavour to secure themselves against fraud. But, on the other hand, do Medical men put themselves in a proper or becoming position by lending not only the aid of their advice, but the weight and authority of their names, in every such case which threatens to come before a court of justice? Even this is not the worst aspect of the question, for Medical men, as the case in point shows, not only act in this manner, but also in many instances fulfil the duties of an agent, in settling claims against the Company which they serve. It is the interest of the Company that the sum paid for compensation should be as small as possible, and this may lead to conduct on the part of their Medical officer which a court of law may pronounce fraudulent, in inducing sufferers to accept a smaller pecuniary recompense than they otherwise would have done, by misrepresenting their chances of recovery. The practice is most reprehensible, and we fully agree with Mr. Justice Keating in emphatically condemning it. It is degrading enough for a Medical man to be asked to do such a thing, but the degradation is far greater should he consent to take such duties upon him. It may be difficult for a man to keep himself strictly neutral, but we maintain that no one does his duty aright under such circumstances who acts otherwise. He is unworthy of his place and calling who steps from his position of Medical referee to become a mere hired agent for conducting a mercantile transaction. He may give his opinion as to the patient's chances of recovery, and the period which will probably be thus occupied; but with regard to the amount of money which will compensate for the damage he has nothing whatever to do. Should he deviate from this straight path, he need not be astonished if he find himself in the awkward predicament of the Medical agent of the Midland Railway Company.

CHARGE OF MANSLAUGHTER AGAINST AN UNQUALIFIED SURGEON'S ASSISTANT AT SHEFFIELD.

Henry Rayner Hodder, aged 43, was last week tried before Mr. Justice Lush on a charge of manslaughter, having been accused of causing the death of Anne Greaves by malpraxis in her confinement. An unqualified chemist had been engaged to attend the woman; but, being out of the way when required, Mr. Hodder, who was acting as unqualified assistant to a third party, was summoned, but, failing to deliver her, sent to this chemist's for the loan of instruments. Among these returned was one, apparently a forceps, which was quite broken through in the blade, and a verbal message was sent along with them, warning him of the state of the instruments. Nevertheless, it was the one which he selected, or at least applied, but failed to secure delivery. After operating for some time, during which one witness swore that she heard the instrument click within the patient, it was withdrawn, and on it was a portion of matter, affirmed by the women present to be flesh, by Mr. Hodder to be blood. The chemist appears also to have given the benefit of his advice towards the end of this period. Subsequently Dr. Mason, a properly qualified man, was called, and the woman was delivered without any further interference; but the child was dead, and she herself sank soon after. A post-mortem examination revealed a very undesirable state of matters; four lacerations existed in the womb, and the whole organ was inflamed, being in some parts gangrenous. It was assumed that these lacerations had been caused by the forceps, and that death had followed from the resulting inflammation. On the merits of the case we can give no opinion, for the report which has reached us is too scanty in details to afford a satisfactory basis for it. But there are one or two points to which we would desire to draw attention. In the first place, the rashness of Mr. Hodder in using a broken instrument such as that described was something scarcely conceivable, and he must reflect that in this respect his conduct has met with the reward it merits; in the second place, we would remark upon this gentleman's age and the fact of his being still unqualified. We think that after a certain time has elapsed, and men are still unable to prove themselves entitled to a qualification, they ought to be prevented from acting as assistants. Another most noticeable feature in the case is the fact that most, if not all, of the Practitioners engaged on the case either were, or had long been, unqualified, although in practice. Dr. Mason, the principal witness for the prosecution, had been five years in this position. Finally, we would remark on the extremely undesirable bias evinced by some of the witnesses, but what are we to expect where ignorance and self-interest go hand in hand? The jury returned a verdict of not guilty.

FROM ABROAD.—DECREE ON OPERATIONS ON LIVING HORSES—PASCAL AND NEWTON—CHOLERA MEDALS IN BELGIUM.

The Minister of Agriculture, Commerce, and Public Works, having appointed a special Commission to deliberate on the practice of operating on living animals in the Veterinary Schools, has just announced the consequent decision he has come to. Operations on living horses are in future to be confined to bleeding; setons, two only for each horse; simple punctures; tracheotomy. Each student arrived at his fourth year may perform two operations on the foot, having a horse for each. He may also perform two castrations. These castrations are to "close the operative *séance*, and the animal is to be killed by the most prompt and least painful manner as soon as they are terminated." For neurotomy a special authorisation will be required. This, of course, is a step in the right direction, but we hope ere long to see our *confrères* abolish the practice altogether.

The subject of the priority of Pascal's knowledge on the subject of the laws of attraction, brought before the Academy of Sciences by M. Chasles, continues to engage the earnest attention of that learned body, that gentleman having laid before it numerous additional letters of Pascal and Newton, of which he seems to possess an inexhaustible budget. He protests, however, that his object was not to raise any painful question of priority. "I simply announced," he says, "that documents which emanated from Pascal proved that he had been much occupied with the question of the attraction of the heavenly bodies, and that he was acquainted with its laws. I said no more, and did not even mention the name of Newton, not having in view the establishing a parallel between these two great men of genius—both worthy, as they are, of the admiration and respect of the geometers of all times and all countries, for science has the whole world for its country." Whatever the object in view, the subject has been taken up warmly as a matter of priority, and is destined to excite much attention in both countries. Certain it is that some of these letters of both Newton and Pascal are of the highest interest, showing, amongst other things, as M. Chasles remarks, that the genius and aptitude of Newton were far more precocious than is generally believed, and that in this respect the biographical details we have of him are very erroneous. It was in 1654, when he was scarcely 12 years of age, that he wrote to Pascal and Gassendi, being then at school at Grantham, and it was in 1655, by the advice of Pascal, that he was sent to Cambridge. There is an interesting letter addressed in 1654 by Pascal to Robert Boyle, informing him of the extraordinary letter he had received from the student lad, and almost suspecting some mystification, and that some philosopher had only served himself with his name. "Some of your countrymen have such strange (*bizarres*) ideas

—pardon me the expression." (John Bull had begun to show his eccentricities on the Continent long before then.) However this may be, the letter he declared to be a remarkable production, exhibiting a full acquaintance with what had been done by the highest minds. "This seems so remarkable for a lad. Doubtless you know him; his name is Isaac Newton. I shall feel so glad if you can give me some information about this precocious young *savant*, for I really want to know with whom I have to do before replying to him." Boyle's reply was doubtless satisfactory, for soon after commences a long series of letters, continued over the next ten years, addressed to "mon jeune amy" or "Monsieur et jeune amy." These letters are filled not only with the teachings of the highest science, but with the best advice, and Newton's mother writes to the philosopher thanking him heartily for the care he had of her son. "I send you these problems," says Pascal in his first letter, "in order to exercise your genius and obtain your opinion, but, my young friend, you must not, nevertheless, fatigue your young imagination too much. Work and study, but let that be done with moderation, for that is the best means of acquiring and of profiting by what you acquire. I am speaking from experience, for I, too, was in haste to learn, and nothing could arrest my young mind, if I may so speak. At the present time I feel that I overcharged my memory, and it commences to prove defective at the very moment I stand most in need of it. I do not say this, my young friend, to set you against your studies, but to engage you to pursue them with moderation. The acquisitions which come insensibly with time are the most stable." The letters and Newton's replies are of the highest interest, and are about to be published separately. One important point to be noticed, however, is that M. Faugère, who has long been engaged with manuscripts of Pascal, declares, after a careful examination, that the documents in question are not in Pascal's handwriting. M. Bénard also, in another letter to the Academy, insists that the letters are a fabrication, and even a clumsy one, and, what is more, that they are the work of some son of "perfide Albion," with the ulterior intention of making the French *savants* ridiculous from their credulity!

It is well known that every fifth Frenchman is a *décoré*, and we suppose that every third Belgian has achieved the same distinction; but it seems that even on the Continent they begin to think that there may be a little too much of so good a thing. While, last year, all Belgium was in consternation about the cholera, and the Medical Profession was—as everywhere it always does—making the greatest efforts, a grateful public declared that, the scourge once passed away, the heroic devotion of the Doctors must not be forgotten, and honours worthy of the occasion must be bestowed. We recollect that, when the matter of payment came to be settled, the various official bodies backed out of their moral liabilities with a disgraceful meanness, which with corporations seems to be a second nature. However, the Medical body believed this, at all events, a good occasion to get a new Order of Civil Merit created, which should hold for distinguished civil services the same rank which the Order of Leopold holds in military, diplomatic, political, literary, and artistic affairs. Professor Crocq brought the subject before the Academy of Medicine, which received it very favourably, with the understanding that the order should be conferred only for distinguished services during the period of public calamities. Instead of this, the Government, by a simple decree, has created a cholera decoration, which it has distributed far and wide in such numbers that almost every one has, or might have, his ribbon, cross, or what not—a cheap way enough of paying the Doctors, but one utterly incapable of calling forth or rewarding heroic devotion.

PARLIAMENTARY. — THE NEW POOR-LAW ACT — GREENWICH HOSPITAL.

In the House of Commons, on Friday, August 16,

Colonel Hogg asked the Secretary to the Poor-law Board whether, referring to the probable increase of cost beyond the estimate for the new buildings under the Metropolitan Poor-law Act, he would give an assurance that no contracts should be sanctioned by the Poor-law Board during the Parliamentary recess which would involve the ratepayers of the metropolis in an expenditure in excess of £100,000, which was the sum mentioned by the President of the Poor-law Board as the probable extreme cost of all buildings necessary for lunatics, fever, and small pox patients, as well as for new district schools.

Mr. Sclater-Booth thought his hon. and gallant friend could hardly expect him to give a specific answer as to what the Poor-law Board might feel it right to do under a hypothetical state of circumstances, not at all likely to occur. The duty of sanctioning the necessary expenditure was laid on the Poor-law Board by an Act of this Session, and the House would doubtless agree that the duty must be discharged upon the responsibility of that department. He might, however, inform his hon. and gallant friend that it would probably be necessary to provide more accommodation for the imbecile poor of the metropolis than was contemplated at the time when his right hon. friend (Mr. Hardy) made his statement to the House; but, on the other hand, he had reason to believe that the estimate then made of the requirements in the case of fever and small-pox patients would be in excess of the actual amount.

Mr. Norwood asked what decision had been arrived at by the Admiralty as to appropriating to the use of the authorities of the Dreadnought Hospital ship Queen Anne's quarter or the Infirmary of Greenwich Hospital; and if a decision be not yet arrived at thereon, when the Committee of the Dreadnought Hospital may expect to receive it.

Lord H. Lennox said that in the spring of the year the Admiralty ordered an inquiry, which was conducted by two Medical gentlemen, civilians. They reported that neither Quarter was well adapted for the purposes of an Hospital, but that Queen Mary's Quarter was preferable to Queen Anne's for such purposes. The Committee of the Dreadnought were not satisfied with that report, and the Admiralty appointed a conference, composed of men whose decision was likely to be conclusive on the matter. Sir Peter Richards and Sir C. Trevelyan were applied to, but they declined to act on the conference in consequence of having other business to attend to. At the request of the Committee of the Dreadnought Mr. Tatum was appointed; and the second Committee also reported that Queen Mary's Quarter was preferable to Queen Anne's. Accordingly, the Board of Admiralty were not prepared to give Queen Anne's Quarter to the Committee of the Dreadnought; but having regard to the great usefulness of the institution, presided over by that Committee, they were quite willing to abide by the offer they made some time ago—namely, to give that Quarter which both sets of Medical men reported to be the better adapted for an Hospital. The Infirmary of Greenwich Hospital was kept for the old pensioners.

FOREIGN CORRESPONDENCE.

FRANCE.

THE INTERNATIONAL MEDICAL CONGRESS OF PARIS.

Paris, August 21.

It may be confidently asserted that no less than fifteen hundred persons congregated in the amphitheatre of the Faculty of Medicine on Friday, the 16th inst. A great deal of taste had been displayed in the decoration of the old place. The flags of various nations, elegantly intermingled, adorned the walls, the nakedness of which was dissimulated by green baize with golden fringes, and the reserved hemicycle exhibited a grand display of red velvet. As to the gilt armchairs which were prepared for the President and the other official authorities of the Congress, we can only say that the amateurs of the French classical drama have long since beheld them in the halls of Agamemnon, under the protection of that undying Greek or Roman soldier whom every Frenchman remembers from the time he was a schoolboy.

In spite of all this, it must be confessed that the amphitheatre is, after all, nothing more or less than a huge schoolroom. Hard were the benches, dense was the crowd, and intense was the heat, during the few minutes of anxious expectation which preceded the appearance of the President. All these minor annoyances, however, were entirely forgotten when Professor Bouillaud entered the amphitheatre and took

the chair amidst universal applause. He then rose to deliver an address, of which we shall only attempt to give a general outline. This meeting, said he, is the realisation of a desire which had long ago been expressed by some of the most eminent members of the Profession; and the presence in this hall of so many Medical men, collected from all parts of the world, is an unmistakable proof of the immense progress which civilisation has accomplished, and a visible manifestation of the friendly feelings which unite the Medical body. It was formerly said that the Pyrenees had ceased to exist; it might now be said that all boundaries between nations had ceased to exist, except the line which separates barbarism from civilisation. The congresses which are meeting on all sides may well be viewed as a sign of the times. The congresses of Rouen, Bordeaux, Lyons, have prepared that of Paris.

Professor Bouillaud then proceeded to relate how the idea first originated; how the Government tendered its assistance; how the press caught the idea, and contributed to realise it; how the adhesions of the leading Medical men of France and Europe came flowing in from all countries. The Exhibition itself, said he, has played a certain part in calling together the members of this Medical assembly; and Paris, the residence of Bichat, that great originator of modern histology—Paris alone is the proper place for such a meeting; for, as the poet said, *Paris is France, and France is the world.*(a)

After paying a just tribute of praise to all those who had a share in the organisation of the Congress, and in particular to Dr. Jaccoud, the Secretary-General, Professor Bouillaud expressed the hope that this meeting would only be the first of a long series of similar solemnities, which, taking place year after year, in one capital after another, would not only favour the progress of science, but would also promote the interests of the Profession.

Professor Bouillaud then offered to vacate the chair, in order to allow the assembly to nominate its President, but was maintained in his functions by universal acclamation. He then proposed, and the Congress accepted, the following gentlemen as Vice-Presidents:—Foreign: Professor Virchow, of Berlin; Professor Halla, of Prague; Professor Lambi, of Kharkhoff; Professor de Meric, of London; Professor Palasciano, of Naples; Professor Vleminckx, of Brussels. National: Professor Bérard, of Montpellier; Professor Gintrac, of Bordeaux; Professor Roux, of Toulon; Baron Larrey, of Paris; Dr. Ricord, of Paris; Professor Teissier, of Lyons. The following gentlemen were then appointed as Secretaries:—*Secretary-General:* Dr. Jaccoud. *Treasurer:* Dr. Vidal. *Secretaries:* Drs. Ball, Bricheteau, Cornil, Desnos, H. Gintrac, Proust.

The President then informed the assembly that the title of Honorary Members of the Congress had been accepted by the Ministers of Public Instruction of France, Russia, and Prussia; the Ministers of the Interior of Belgium, Holland, and Portugal; and Count d'Avia, Vice-President of the Academy of Sciences of Lisbon.

The following gentlemen have been sent to the Congress as official representatives by their respective governments:—Professor Frerichs, of Berlin, for Prussia; Professor Seitz, of Munich, for Bavaria; Professor Crocq, of Brussels, for Belgium; Professor Barbosa, of Lisbon, for Portugal; Professor Denonvilliers, of Paris, for France.

A great number of scientific societies, both French and foreign, have also sent their representatives to the Congress.

These preliminaries having been settled, the President opened the discussion on the subject of

THE MORBID ANATOMY OF TUBERCLE.(b)

Dr. Villemin, Physician to the Military Hospital of the Val de Grâce, read a paper "On Tubercle and Analogous Productions." The object of the author is to prove that the grey granulation is produced by the same morbid process as yellow tubercle, or *caseous pneumonia*. He dissents from the German school, which considers them as two distinct alterations; in his opinion, they only represent the successive phases of one and the same affection. When the granulation is examined in its very first stage, in a serous membrane, it is found to consist of three distinct zones; the outer zone contains large cells possessing several nuclei, the middle zone contains elements of various dimensions, and in the central part are accumulated the smallest nuclei and cells which the process of proliferation can produce. The intensity of the morbid cause is measured, not by the size of the granulations, but by their number. Fatty degeneration, seizing upon them in their various stages of development, converts them into caseous substance; but there is no unique and absolute type of caseous tubercle. The rapidity of the morbid process is in direct ratio to the intensity of cellular proliferation.

As to tubercle considered in the lungs, Dr. Villemin retracts the opinion which he had formerly expressed with regard to its situation. He no longer considers it as implanted in the epithelium of the lung; its seat is the intervesicular connective tissue. The elements of which the granulations are composed are evidently derived from the nuclei which exist in the walls of the pulmonary vesicles. If at a certain stage they assume the appearance of epithelial cells, this is only the result of compression, when they are closely pressed against each other. When these histological elements are affected with fatty degeneration, or *necrobiosis*, they are characterised as the results of *caseous pneumonia*. But, far from being congested, the lungs are anæmic in the vicinity of tubercular masses; it is, therefore, impossible to view *tubercle* as the result of inflammation.

Dr. Villemin considers *tuberculosis* as one great morbid unity; he accepts entirely in this respect the views of Laennec, but declares that there exists no specific element in tubercle. Lymph-globules, in the physiological state, resemble the elements of tubercular formation; in the morbid state, the productions engendered in the lungs by syphilis and glanders exhibit the same appearance under the microscope. Clinical Medicine is, therefore, alone capable of establishing the real character of pulmonary tubercle.

Alluding to the inoculability of tubercle, Dr. Villemin states that, in his opinion, it establishes a close connexion between ordinary consumption, syphilis, and glanders. The three diseases are not identical, but belong to the same family.

Dr. Jaccoud, in the name of Professor Sangalli, of Padua, read a paper tending to prove that tubercle is of an inflammatory nature.

At this stage of the proceedings, a Dutch Physician, Dr. Van Lohe, rose to observe that, in his opinion, the Congress was not an international meeting, since, instead of discussing the interests of the Profession, it was exclusively devoted to the reading of scientific papers. He was preparing to unfold his views on the subject, when the President requested him to postpone his communication to the next meeting, in order to allow the discussion to proceed.

Professor Crocq, of Brussels, read a long paper on the etiology of tubercle, which his very harsh Belgian accent and too rapid utterances rendered almost unintelligible. He described at great length the characteristics of the various forms of tubercle as seen under the microscope. He considers the seat of the disease to be the intervesicular connective tissue, agreeing on this point with Dr. Villemin. He admits three forms of pulmonary tuberculisation—one which corresponds to lobar pneumonia (infiltration), one which answers to lobular pneumonia, and a third which corresponds to vesicular inflammation (miliary tubercle). In his opinion, tubercle is not the cause, but the consequence, of pneumonia; and the diathesis, which is supposed to exist in such cases, is disproved by the frequent appearance of tubercle in one organ alone, the remainder of the economy remaining free.

Dr. Jaccoud, in the name of Professor Lebert, of Breslau, read a paper on the results of inoculation as applied to pneumonia, chronic adenitis, tubercle, and other morbid substances. The author states that he has produced tubercle in the lungs and the liver by injecting pus into the veins; and that, by introducing the sputa of tubercular patients under the skin of dogs, he has produced septicæmia, or purulent infection. After relating several other experiments of the same nature, the Professor states that the inoculation of various morbid substances appears to lead ultimately to the same results, and attributes the development of tubercle to a peculiar mode of cellular irritation.

The papers presented to the Congress on this subject having been read,

Dr. Hérard rose to discuss the opinions expressed by their authors. He considers the grey granulations as the type of tubercle; the consecutive alterations he views as being of an inflammatory nature. He admits the existence of an epithelium in the pulmonary vesicles, which Dr. Villemin denies. He therefore differs from him in opinion as to the primitive seat of tubercle. He admits the existence of *caseous pneumonia*, but proposes to substitute for this expression the more

(a) We are not prepared to say whether this sweeping assertion was relished by the Prussians of Berlin.

(b) The Congress is not divided into sections, and all the discussions take place in the same hall.

comprehensive term of *tubercular pneumonia*. There never exists, says he, a caseous tuberculisation which has not been preceded by the granular state. The fact has been proved by Andral, Cruveilhier, and the leaders of the French school. Dr. Hérard's masterly and elegant speech was warmly applauded.

Dr. Villemin and Professor Crocq successively rose after Dr. Hérard to maintain their views.

Dr. Mongeot, adopting the opinion of Dr. Empis, considers the granulations of the lungs as a disease entirely different from tubercle.

Drs. Gourdin, Bertet, and Galligo, of Florence, spoke successively on the subject of the inoculation and contagion of phthisis.

The meeting did not separate before half-past five o'clock. It was agreed to put off the remaining part of the discussion to the ensuing Monday.

The general impression which arises in the mind of an impartial observer from the results of this day's proceedings is that science is far from having given a definitive verdict on this *vexata quæstio*, since no two micrographers can be said to agree on the subject. On the other hand, the discussion of these highly important doctrines in a public congress is evidently of the greatest importance; it sets forth, in the eyes of the civilised world, the present state of the question, and the various arguments on which the conflicting parties severally place their principal reliance.

SATURDAY, AUGUST 17.

The evening meetings of the Congress are devoted to those questions which are foreign to the official programme.

Professor Bouillaud took the chair at 8 o'clock. He informed the assembly that, on account of a severe domestic misfortune, Professor Brown-Séquard would not be able to attend.

Dr. Galezowski read a paper on the alterations of the retina and the choroid membrane in tuberculosis. He exhibited a certain number of coloured plates, which circulated among the members present.

Dr. Bouchut declared that the only thing which had surprised him in Dr. Galezowski's communication was the total absence of any acknowledgment of his own labours on the subject. Dr. Bouchut had investigated the question in all its bearings long before Dr. Galezowski had bestowed a single moment's attention upon it. Dr. Bouchut then explained his views on the utility of the ophthalmoscope in cerebral diseases, in meningitis, in cerebral tuberculosis, in cerebral hæmorrhage, etc., and exhibited a very large number of plates connected with the various changes which are discovered, by means of the ophthalmoscope, in patients affected with intracranial disorders. Dr. Bouchut was very warmly applauded by the assembly.

Dr. Gourdin read a paper on various modes of treatment applied to pulmonary consumption, and more particularly on injections of lunar caustic into the trachea. He states that the results of this method were, on the whole, unsatisfactory, although it appeared to diminish the abundance of the bronchial secretions.

Dr. Marchal (M. Calvi) read a paper on the injurious methods of treatment employed in pulmonary consumption. He stated it as his opinion that both iron, sulphur, and iodine, but more especially the last, were highly injurious to phthisical patients, and accelerated the fatal termination of the disease. His chief reliance in such cases lay in a proper hygiene and a good climate.

Dr. Lombard, of Geneva, after expressing his approbation of the views of Dr. Marchal, gave some interesting information on the effects of *altitude* as influencing the development and progress of consumption. He stated (exhibiting a formidable array of figures) that phthisis was unknown in Switzerland in high localities. He proved that the quantity of oxygen inhaled diminished rapidly as one rises above the level of the sea; and he attributed the good effects of elevated stations, in cases of pulmonary disease, to the smaller quantity of oxygen which penetrated into the patient's lungs. Dr. Lombard will give, on another day, a fuller account of the results of his investigations on this point.

Dr. Augias-Turenne recommended the use of garlic as a valuable remedy in the hacking cough which usually accompanies consumption.

Dr. O'Leary (Ireland) declared that iodine, disseminated in the atmosphere of a room, so as not to irritate the lungs, was, in his opinion, one of the best methods of treatment for consumption.

Dr. Van Lohe was now requested by the President to explain his views on the subject of Medical organisation. He complained of the restrictions which encumber the practice of Medicine, and expressed a wish that a Physician, having once taken his degree, should be entitled to practise in all countries.

Professor Palasciano said that in Italy, since it had become a free country, the legal status of the Medical Profession had been vastly improved. Physicians were no longer prevented from receiving legacies from their patients, as they are in France; their widows were entitled to a Government pension when they fell victims to their humanity in epidemical visitations; and, lastly, they were dispensed from the painful duty of informing against their patients when they happened to light upon the traces of a crime—a duty which, in most continental countries, and even in France, was laid upon the Medical adviser.

Professor Bouillaud and Dr. Rivillout successively rose to protest against this latter assertion. They declared that even if the law had attempted to compel the French Physician to denounce his patient, his feelings as a man of honour would always compel him to disobey the law.

Professor Crocq expatiated at large upon the deficiencies of the law in Belgium with regard to the Medical Profession, and expressed a wish that some future Congress should meet for the purpose of reforming European legislation on this subject.

The President declared that he could not allow this discussion, however interesting, to proceed any further. It did not belong to any part of the official programme; besides, such questions in France could not be discussed without the permission of Government—a permission which, if asked, would unquestionably have been refused.

The meeting separated at half-past eleven o'clock.

GENERAL CORRESPONDENCE.

THE DIET HANDBILLS AT THE ROYAL INFIRMARY FOR DISEASES OF THE CHEST, CITY-ROAD.

LETTER FROM DR. HORACE DOBELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondent of to-day, who shields himself behind the signature "Medicus," professes to desire the opinion of the Profession on my practice of giving printed diet scales and directions to my out-patients at the Royal Hospital for Diseases of the Chest.

It must always be a pleasure to a Medical man who knows that he is acting conscientiously to have his work criticised by his Professional brethren, provided only that the work is laid before them with fairness. In the present instance this fairness has not been sufficiently attended to by your correspondent. I beg, therefore, that you will allow me to set him right, so that the case on which he professes to wish for Medical opinion may stand in its true light.

His most palpable mistake consists in putting forward (No. 4) the last of the papers he has copied as an Hospital document like the diet scales 1, 2, and 3, the fact being that it has nothing to do with the Hospital, as may be seen by any one who reads it. It is obviously a circular of Savory and Moore's issued by them for the purpose of enabling "poor persons" to obtain pancreatic emulsion at a cheap rate, and of protecting themselves from imposition while doing so.

Setting this paper aside, therefore, as having nothing to do with the present question, I wish to make the following remarks in reference to the diet scales:—

1st. In my lectures at the Hospital this year I fully explained my reasons for believing it to be absolutely essential to the rational treatment of consumption that special diets should be supplied to the patients, and I then exhibited to the Medical men who honoured me with their attendance the diet scales in question and the following analysis of each of them:—

DIETS FOR CONSUMPTION.

In the following diet tables it is assumed that no fat is assimilated except that artificially pancreatised:—

In Table I. the required amount of carbon is supplied by an excess of carbo-hydrates.

In Table II. the required amount of carbon is supplied by an excess of albuminoids.

In Table III. the amount of carbon is kept low because it is

only intended as a temporary diet to be used during periods of rest in a warm room. The arrowroot and some of the fat of the milk are pancreatised by mixture with the "pancreatised fat."

Table I.—Carbo-Hydrate.

	Oz.	Plastic.	Fat.	Saccharine.	Total carbon.	Carbon from nitrogenous.	Carbon from non-nitrogenous.
Cooked meat	6	1·350	·534	—	1·152	0·732	0·420
Bread	10	1·000	·070	4·530	2·470	0·540	1·930
Potatoes	8	0·136	—	1·840	0·832	0·072	0·760
Sugar	2	—	—	1·800	0·848	—	0·848
Milk 20 fld. oz.	24	1·000	0·700	0·840	1·440	0·540	0·900
Liebig's food for infants	2	0·300	0·116	1·064	0·720	0·162	0·558
Farinaceous foods	6	0·300	0·020	4·900	2·350	0·160	2·190
Fermented liquor(a)	—	—	—	—	1·000	—	1·000
Pancreatised fat	1	—	1·000	—	0·740	—	0·740
Totals	37½	4·086	2·440	14·974	11·552	2·206	9·346
Deduct carbon from non-pancreatised fats	—	—	—	—	0·945	—	—
Total available carbon	—	—	—	—	10·607	—	—

Table II.—Albuminoid.

	Oz.	Plastic.	Fat.	Saccharine.	Total carbon.	Carbon from nitrogenous.	Carbon from non-nitrogenous.
Cooked meat	8	1·800	·712	—	1·536	·976	·560
Pigeon or game	6	1·380	0·110	—	0·830	0·740	0 090
Dried fish	3	1·310	0·055	—	0·745	0·710	0 035
Cheese	1	·308	0 25	·024	0·36	0·166	0·200
Vermicelli	3	1·425	—	1·164	1·293	0·777	0·516
Bread	4	0·400	0·030	1·810	0·990	0·220	0·770
Rice or arrowroot	6	0·300	0·020	4·900	2·350	0·160	2·190
Sugar	3	—	—	2·700	1·270	—	1·270
Milk 20 fld oz.	24	1·000	0·700	0·840	1·440	0·540	0 900
Green vegetables	6	0·060	0 012	0·468	0 234	0·030	0·204
Fermented liquors(a)	—	—	—	—	1·000	—	1·000
Pancreatised fat	1	—	1·000	—	0·740	—	0·740
Totals	43½	7·983	2·895	11·906	12·794	4·319	8·475
Deduct carbon from non-pancreatised fats	—	—	—	—	1·410	—	—
Total available carbon	—	—	—	—	11·384	—	—

(a) Either, half a pint (imperial) of port, sherry, or marsala; or, one pint of Burgundy, claret, or other similar wine; or, one pint of good ale or stout; or, a quarter of a pint of rum, whisky, or brandy, diluted with one pint of water.

Table III.—Fluid Diet.

	Oz.	Plastic.	Fat.	Saccharine.	Total carbon.	Carbon from nitrogenous.	Carbon from non-nitrogenous.
Milk 78 fld. oz.	10	3·900	3·730	3·276	5·620	2·106	3 510
Arrowroot	6	0·300	0·020	4·900	2·350	0·160	2·190
Pancreatised fat	1	—	1·000	—	0·740	—	0·740
Totals	17	4·200	4.750	8·176	8·710	2·266	6·440

This diet is to be given as follows:—

8 oz. of milk and 1 oz. of arrowroot every 4 hours (6 times in 24 hours) for 24 hours.

10 oz. of milk and 1 oz. of arrowroot every 4 hours for 24 hours.

12 oz. of milk and 1 oz. of arrowroot every 4 hours for 24 hours.

13 oz. of milk and 1 oz. of arrowroot every 4 hours for 24 hours.

The last quantity to be continued until solid diet can be borne by the stomach.

One-sixth of an oz. of pancreatised fat is to be mixed with a little water, or with a portion of the milk, and given directly after each dose of arrowroot and milk, not mixed with the whole bulk.

2nd. "Medicus" would have it understood that these diet tables are used in a "kind of mechanical routine," which is not the fact. They are used by me in special classes of cases, as explained in my lectures. Table II., "Albuminoid" (Class 10 B of the Hospital forms), I seldom use, the cases requiring it being comparatively rare. Table I., "Carbo-hydrate," is my usual diet for an adult consumptive male, and I am accustomed to modify this in various ways, when required, by altering the weights and measures with my pen. Table III., "Fluid Diet," is obviously applicable only to occasional cases where no more solid diet can be borne, and in such cases only do I use it as a rule.

3rd. As to cost. Had "Medicus" taken more trouble to be fair, he would have seen that, with the exception of Table II., which is seldom used, the diets are not *necessarily* costly. Table I., the usual diet, is carefully arranged so that the cost may be adapted to the means of the patient or his friends. In its least expensive form it is a cheap diet. Table III. needs no remark.

4th. As to the heading, "Directions for Dr. Dobell's Patients," which he points out for especial criticism, it is a simple act of justice to my colleagues that I should thus take upon myself the sole responsibility of ordering forms of diet with which they may or may not agree; and in thus attaching my name to them I simply follow the practice of the principal London Hospitals with regard to their letters for out-patients.

5th. To any one acquainted with out-patient practice at a London Hospital, and the limited time that can be spent upon each patient, it must be evident that no details of diet and regimen can possibly be given, unless they are in a printed form.

I regret, Sir, that I have been forced to ask for so much of your valuable space, but I trust to your love of fair play that, having inserted the letter of "Medicus," you will do me the favour to insert this in your forthcoming number.

I am, &c.

84, Harley-street, August 16. HORACE DOBELL, M.D.

INDIAN MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a member of the Indian Medical Service, permit me to thank you for your exposition of some of the grievances of that body contained in your issue of the 3rd inst.

You have, I believe, expressed the general feeling of the service on the subject of employed pay being withheld from Assistant-Surgeons prior to passing in the languages; of the inferiority of the pay of Surgeons-Major to that of Lieutenant-Colonels, and of the abolition of so many appointments in the higher grades to which those who entered the service in former years have always looked forward as prizes to be earned by hard work and faithful service. But there is one point in which your support fails us. You are, you say, unable heartily to join in the cry as to the injustice of withholding staff pay in addition to full pay from Medical officers; and you proceed to characterise as in this respect unreasonable the complaint of a body of men who have laboured for years under a sense of constant wrong with the most wonderful and self-denying patience. I trust that I shall be able to prove to you that you have formed this opinion under a misapprehension, and that you will at once withdraw the imputation of unreasonableness which you have cast on the service.

You have rightly stated that for a long series of years the double system of pay proper and staff salary was in force throughout the Indian Medical Service, and that in 1864 this system was abolished, and that of consolidated pay introduced; but you are entirely wrong in supposing that the consolidated allowance, which was "calculated so as to embrace both pay proper and staff allowance," equalled them in amount, or represented the corresponding allowances drawn by combatant officers.

Doubtless it appears to you that the Medical officer at present receives more than he did under the old system, but this is simply because he now more speedily attains higher rank. Formerly an Assistant-Surgeon remained in the rank of lieutenant till promotion for thirteen or fourteen years, drawing the pay of a lieutenant, and a staff salary when in charge of a regiment, amounting together to about 421 rupees. Under the warrant of May 16, 1864, the rank of captain was given after six years' service, and pay proper allowed, ranging from 317 to 451 rupees up to ten years' service; but by this warrant all staff salaries and head money were withdrawn, and, while the pay proper after six years' service exceeded the old pay of rank and staff by about twelve rupees, that of the period under the six years fell considerably below it. By the amended warrant which appeared in November, 1864, the pay of Assistant-Surgeons was altered to 450 and 600 rupees per mensem, under and above five years' service respectively, and that of full Surgeons to 800 rupees; but the full Surgeon enjoys the relative rank of Major, and the pay proper of that rank is 789 rupees; the difference, 11 rupees, must therefore be considered as "calculated" to equal the former staff salary. On the other hand, the same officer being unemployed found his pay of rank reduced to 640 rupees.

Believe me, Sir, the Medical officers of the Indian army are far too practical to complain on a matter of mere names; a

consolidated allowance is to them quite as good as pay proper and staff, provided the amounts be equal. What they do complain of, and feel bitterly, is that they, while holding charges, are put off with a consolidated allowance embodying the pay proper of their rank and an overplus equal to the wages of a cook or a water-carrier, and when unemployed receive absolutely less than the pay of their rank; while combatant officers receive at all times their full pay, and a liberal staff salary when employed. While such a system remains in force the Medical officer is plainly placed at a disadvantage, and is rated as inferior in money value to the purely military officer. Can we rightly be called unreasonable if we object to such a state of things? I am, &c.

An Indian Surgeon.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 25, 1867.

Mr. Solly, President, in the Chair.

A paper, by Dr. W. Burke Ryan, was read on a

CASE OF ATELECTASIS PULMONUM,

and one on a fœtus born before the sixth month of uterine life, weighing 1¾ lb. less one drachm, in which very feeble and occasional respiration was sufficient to make a small portion of the lungs float in water. On January 4, 1859, a child aged five weeks died suddenly in Ledbury-road, having been previously labouring under a cough for which medicine had been procured the previous night from a Surgeon who had not seen the child. Owing to a remark made by another Medical gentleman, Mr. Wakley determined to hold an inquest, and requested Dr. Charles Clarke, now of Adelaide, to make a post-mortem examination, in which he was assisted by Dr. Burke Ryan. The result disclosed a state of things so extraordinary and so unprecedented as to make it a matter of the utmost surprise how this child could have lived to the age it did. The following is the composition of the mixture, of which scarcely a teaspoonful was given eight hours before death. It will be seen that two minims of the compound tincture of camphor could scarcely be said, even under such circumstances, to have had a deleterious influence, and the child had no appearance during life of having suffered from an opiate:—"℞. Syr. scillæ ʒij.; tinct. camph. co. mxvj.; aq. ℥j. M., cochl. j. parv. pro dosi." Early on the morning of January 4, the mother, after attending to the child, fell into a short sleep, and when she awoke the child was dead. The post-mortem took place on the January 11. The body appeared in good condition, rather plump, with a rosy hue on the parts exposed to atmospheric action. The brain was evidently much congested, black dots appearing on slicing it transversely. The blood was dark and clotted in the sinuses and veins. There was no appreciable effusion into the ventricles. The thymus gland was large and permeated by a white fluid of a chylous appearance, about half a drachm of it occupying the central cavities. On opening the thorax the lungs presented a solid appearance, pretty firmly contracted towards the back part of the chest, and inelastic, leaving much of the pericardium exposed. No crepitation in any part, and on cutting into them they showed all the appearance of being in a fœtal state, the usual sanguineous serum being absent. They weighed eighteen drachms, or 1080 grains. The pericardium contained two or three drachms of serum, and the heart itself was plump, hard, and enlarged, as if bursting with its contents. The right chambers were filled with perfectly black clotted blood, which was equally black, but of small quantity, in the left side. The foramen ovale and ductus arteriosus were pervious. There was a considerable quantity of serum in the cavity of the chest. The stomach was nearly empty, containing about two drachms of dark grumous fluid. The liver was large and fully congested, as were also the kidneys. On opening the abdomen, a deposit of fat was observed, and the intestines appeared healthy. With the heart attached, the lungs sank rapidly in water; the heart being detached, the lungs in their entirety also sank rapidly. They were divided into several pieces, and all quickly fell to the bottom. Mr. Wakley remarked that he had never before witnessed anything of the kind, adding that it could only have required the slightest impediment to respiration in order to cause death. Not the smallest piece floated. On inflating part of the lung it partially floated, but most of the air soon escaped again—indeed, inflation was quite imperfect, the air entering with great difficulty, owing to the inexpansible condition of lung. Dr. Ryan left several pieces of the lung with Mr. Quekett, and in writing to him said:—"I now send you the pared-off edges of the uninflated lung. You will find two of the pieces, weighing only one-half and three-fourths of a grain respectively, which sink as rapidly as the rest. An examination of these is perhaps all that is necessary in order to render the subject perfect." Mr. Quekett's reply was subjoined. The lungs may sink from diseases of various kinds, of which Bernt has given examples, and in which the causes of sinking will be obvious. Engorgement, hepatisation, tubercles, etc., may be named amongst these. The first of these may take place to such an extent as to cause sinking, as noticed by Hoffman, but Büttner, Schmidt, Metzger, and Bernt hold that in cases of congestion the lungs will float if cut into fragments. Congestive and inflammatory diseases are comparatively rare before birth, as noticed by Haller, Billard, and Dr. Duncan. The fact that the lungs of children who had breathed and lived, even for a considerable time, will sink in water, was noticed by several authors, but Dr. Edward Jörg, of Leipzig, was the first fully to investigate and describe the state of things which led to this, under the name of atelectasis.(a) This may occur either from absolute disease, great weakness, or mechanical impediments to respiration, and Jörg believed that the process of parturition much influenced such a result, as well as those cases where children are born with powers so feeble that they cannot live without placental circulation. A case of this kind is appended to the present paper. A child may be born with powers so feeble that part of the lungs may remain wholly unreached by atmospheric air, and so continue in an undeveloped state, becoming subsequently consolidated or deteriorated, so that many, or, as in the present case, almost all, traces of vesicular structure may disappear. Dr. Blancardi, of Naples, who opened ten or twelve infants daily, who generally died within twenty-four hours after birth, hardly ever found more than a very small proportion of the lungs, and this commonly situated in the right lung, filled with air. Other authors, amongst whom was Metzger, supposed that an atelectasic state of lungs occurred only in immature children, but that is a mistake. Asphyxia at first, from any cause, may leave a state of things where children may live hours or days subject at any moment to be cut off by the slightest accident, and here the foramen ovale and ductus arteriosus always remain enclosed, in consequence of the unexpanded lung preventing the pulmonary circuit of blood. We are wholly at a loss to account for the fact of children living and breathing, and yet after death leaving no traces of respiration. Bernt gives the case of one, which had arrived at the full period of utero-gestation and lived a day, where the lungs sank in their entirety, and where, on being cut, a few fragments only floated; he mentions a seven months case where the child lived two hours, the lungs sinking in water, and where, after being cut into fragments, only three floated. In a third case, too, of a seven months child living two hours, the lungs, both entire and when cut into small pieces, sank in water. In Henke is given a case where a child lived four days, and yet the lungs, wholly and in fragments, sank in water. Heister and Orfila give cases where the lungs of feeble infants, having lived nine and eleven hours respectively, sank when cut into fragments. Billard and Depaul also bear testimony to this state of things. Schenk mentions a case where the lungs sank to the bottom of a vessel of water, the child having lived four days, and Taylor gives two cases, one of which, a twin, lived twenty-four hours, and each lung, having been cut into fifteen pieces, sank rapidly. Dr. Albert mentions a case where a child lived thirty-six hours, being occasionally convulsed, and where the whole right and lower lobe of the left lung appeared in a fœtal condition. The case here described is believed to be the only one on record of perfect atelectasis in a child so old. The sinking in water was not the result of any disease other than that of non-development or deterioration of the vesicular structure, while its puzzling nature is still more fully borne out by the careful microscopic examination of the late Mr. Quekett. Had the state the lungs presented been the result of any particular form of disease after birth, traces of cell structure could not have been so wholly lost, and some fragments must have floated in water, and the weight at the

(a) ἀτελής, *incomplete*, and ἔκτασις, *expansion*.

end of five weeks must have exceeded 1080 grains, or 2½ oz. *Case* 2.—Fœtus not arrived at sixth month of uterine life, weighing not quite 1¾ lb. Small portion of lung inflated. Dr. Burke Ryan attended Mrs. H. in a case of typhoid fever, caused probably by imperfect drainage, although the house was large and well built. She was in her fourth pregnancy, and the attendance commenced on May 6, 1859. On June 4, before the sixth month of utero-gestation was completed, she was delivered of a very diminutive fœtus. The child was alive, moved and breathed very feebly occasionally, but emitted no sound, and the chief evidence of life was given by the heart's action and by the placental circulation, which was strongly kept up. The infant was folded in flannel, and the result watched with much interest. The placental circulation was carried on for about twenty-eight minutes, gradually getting weaker, and the moment it ceased life was extinct. The weight was 1¾ lb. less one drachm. The heart, lungs, and thymus gland weighed one ounce avoirdupois and seventy-five grains, and sank in water, as they did when the thymus, which weighed thirty-two grains, was separated. The right and left lung sank rapidly when separated. The left lung cut into fragments sank. The upper and middle lobes of the right lung were cut into twenty pieces, and all sank. The lower lobe was cut into fifteen pieces, and all sank but two, weighing respectively 3¼ and 3½ grains. The heart weighed 103 grains, thus leaving the weight of the lungs 420 grains. The foramen ovale was quite open, and the ductus Botalli pervious. Right auricle and ventricle full of black blood. Left auricle contained about two or three grains weight of black blood, and the left ventricle was quite empty. Dr. Davis mentions a case (*Medical Gazette*, vol. xl. p. 1022) of a child 1¾ lb. weight that lived ten minutes, but no post-mortem examination was made.

A paper, by Mr. Charles E. Squarey, was read on

THE TEMPERATURE AND THE URINE IN TYPHUS FEVER.

Observations were made on eighteen cases whilst Mr. Squarey was at the Fever Hospital. The temperature in each case was taken four times daily whilst higher than normal, and afterwards twice daily till the patient left the Hospital. The urine was examined quantitatively for urea and chlorides every day by Liebig's volumetric method. When albumen was present it was separated before performing the analysis. The specific gravity, reaction, colour, and deposit were at the same time noted. Of the eighteen cases, one died, nine were very severe cases, the remaining eight only moderately so. With regard to the temperature, the following conclusions have been drawn:—1. That the rise of the temperature at the commencement of the disease is very rapid. 2. That the range of the temperature for the first week or so continues very high, and that it varies very slightly. 3. That a well-marked remission in the temperature generally occurs between the seventh and tenth day of the disease. 4. That the lysis is gradual, and commences in uncomplicated cases with the remission. 5. That the lysis may be interrupted by exacerbations, which may be produced by complications or by some external disturbing influence. 6. That, during the first week of convalescence, the temperature is rather low, rising again after a variable period, depending on the severity of the attack and constitution of the patient, to the normal line, or even higher. 7. Some of these cases show that during convalescence the temperature may rise to above 100° Fahr., and continue so for a day or so without there being any assignable cause. Facts in support of each of these conclusions were adduced from the above cases. Of these eighteen cases, there were only two coming under observation before the characteristic rash had appeared from which any conclusions could be drawn as to the use of the thermometer as a means of diagnosis between the acute specific fevers. In both these cases the temperature was above 104° Fahr. on the third day; but such a temperature will not, Mr. Squarey says, exclude typhoid fever on the one hand, or small-pox on the other. In scarlet fever, the appearance of the rash on the second day—in measles, the special premonitory symptoms—will enable us to distinguish them sufficiently early; but, in small-pox, and especially varioloid, typhus, and typhoid fever, very little help, unless the case be very well marked, is afforded by the early symptoms. The rapid rise and continued elevation of the temperature in these cases foretell the invasion of a serious disease, but it does not enable us to foretell with certainty which of these fevers is approaching. With regard to prognosis, Mr. Squarey remarked:—1st. That a too favourable prognosis should not be given from the remission that occurs between the seventh and tenth days of the disease; for although it denotes that the disease is running a favourable course, it by no means denotes that the most dangerous period of the disease is passed. 2nd. That a high temperature during the first week is not of so much importance as continued elevation during the second week. 3rd. That of more importance still than this continued elevation is an abnormal temperature—that is, a rapid fall of temperature, whilst all the other symptoms continue with unabated severity. The temperature and the pulse in these cases, although they have corresponded in their fluctuations more or less in every case, have not done so so regularly that any number of beats can be said to correspond to any particular amount of variation in the temperature. Out of the eighteen cases, the following irregularities, so to say, on this point have occurred:—Thus, in one case the temperature rose at a much greater rate than the pulse, the former being 100° Fahr., the latter only 92°, on the seventh day of the disease; the pulse was 120 on the twelfth day. In two cases, the temperature being very high, the pulse was very low throughout. In three cases the temperature reached the normal point before the pulse. In seven cases the pulse was normal before the temperature. The Urine: From the analyses made in these cases the following are the conclusions which have been drawn with regard to the excretion of the urea:—1st. That during the first period of an attack of typhus fever, before the commencement of the lysis, there is an increased formation, and generally an increased elimination, of urea. 2. That during the lysis, and sometimes during the first week of convalescence, the urea is generally excreted at more than the normal rate. 3. That, for a variable period during the commencement of convalescence, the urea is much diminished in quantity, rising again to the normal amount as the patient regains his health and strength. The chlorides in every case have been found to be much diminished during the pyrexial period, the average daily excretion being in most of the cases less than one gramme during this time. The first increase noted in the excretion of the chlorides has occurred in 8 cases before the temperature had reached the normal point, in 2 cases just at the end of the lysis, and in the remaining 7 cases two or three days after the normal point had been reached. The Urinary Water: As in these cases no account has been taken of the ingestion of fluid, each patient being allowed to drink as much as he liked, the conclusions arrived at on this point must only be taken in a very general way. Taking 1500 cubic centimetres as the mean amount for an adult (Parkes), it has been found in these cases that both before and during the lysis, and generally during the first and second weeks of convalescence, the amount of urinary water was below the normal quantity. Albumen was present in 12 out of the 18 cases. In 5 cases the urine was found alkaline for a day or so during the course of the disease, and this generally about the end of the third week. The colour of the urine during the pyrexial period was generally reddish yellow, or yellowish red (Neubauer and Vogel), almost colourless during the early part of convalescence, and then gradually recovering its normal colour. A copious deposit of lithates was generally noted during or towards the termination of the pyrexial period.

A paper, by Dr. Edward J. Waring, was read, entitled

NOTES ON DRACUNCULUS.

Dracunculus, or Guinea worm, exists endemically in tropical regions between 23° or 24° N. lat. and 12° S. lat. It is therefore essentially a tropical disease, although isolated cases may occur, in this or any other climate, in individuals within a twelvemonth of their leaving an affected district. No age, class, or caste in infected regions is exempt from it, though, as a general rule, it is more common amongst the dark races than amongst Europeans in India. In the great majority of cases it makes its exit from the system by the lower extremities. Previous to its extrusion it not infrequently manifests considerable migratory powers, its course being in some instances traceable under the integument. The usual number in an individual is one, but in districts in which the disease is intensely endemic a much larger number may appear, fifteen being the largest number in any one individual amongst the cases under review. There is little liability to relapse unless the patient remain in or remove to an infected locality. The average length of the worm is about twenty-four inches, ranging between twelve and sixty inches. It prevails at various seasons in different parts of India; and though season *per se* seems to exercise little influence, it invariably manifests itself in its greatest intensity at the same period of the year in

any one given locality. Isolated cases may occur at any season. A popular opinion that it prevails most in a year subsequent to one in which there has been deficient rainfall is not borne out by figures. An intimate connexion exists between the character of the soil and the prevalence of the worm. It is most common in localities where rocks of the secondary trap series abound, and least so in those where laterite exists; it is also rare in alluvial soils. It may be introduced into localities previously exempt, provided that certain geological features exist. The period of incubation in the human frame has been shown to be about twelve months. It does not necessarily follow that because a Guinea worm exists in the system its extrusion is essential; it may become cretified and remain in the system without inconvenience. The mode by which the entozoon gains entrance into the system, whether through the skin or through the medium of the stomach by the use of drinking water, is as yet undetermined. It has been suggested that they enter through the sudorific ducts; this, like the two preceding theories, must be regarded as "not proven." Amongst the alleged causes of Guinea worm may be mentioned the use of stagnant or well water, poverty of diet, contagion, and hereditary predisposition, but all on insufficient grounds. Its appearance, rarely with any premonitory symptoms, is heralded by a small bulla or vesicle (generally in the neighbourhood of the ankle) which rapidly enlarges till it has attained the size of a walnut; it contains at first a clear, limpid fluid, which after a few days becomes red and turbid. On being opened, an abraded or ulcerated surface presents itself, about the centre of which a small white spot, the head of the worm, is seen protruding. This is to be gently seized, and extraction commenced. This is the course of the worm under favourable circumstances. Occasionally, from some extraneous cause, as leaping, a fall, etc., the coats of the worm become lacerated; this accident is followed by local inflammation and suppuration, the constitutional irritation is often great, and the pain severe. On opening the resulting abscess, portions of the worm, and occasionally the entire worm, will be found in the pus; in the former case there is generally found on the floor of the abscess a fistulous opening, at which the extremity of the remaining portion of the worm presents itself, which should be at once secured. The treatment of ordinary uncomplicated cases is very simple. It consists in opening the bulla within thirty-six or forty-eight hours after its appearance, seizing with a pair of fine forceps the protruding head of the worm, and making gentle traction until as much has been extracted as possible without resistance on the part of the worm. The portion thus withdrawn should be twisted round a small piece of quill or other hard body, and secured *in situ* by adhesive plaster, the whole to be covered with a a soft poultice, or, better still, with water dressing. This process to be repeated daily till the whole worm is extracted, which it generally is in twelve or fourteen days. It greatly assists the process to make the traction under water in place of the open air. Another plan of treatment consists in cutting down on the worm, passing a piece of thread or tape under one of the convolutions, and extracting gently the whole worm at once. To do this, it is essential that the worm should be immediately under the integument, which is not ordinarily the case. On the whole, the former mode of procedure is preferable. Under any treatment the worm sometimes breaks; this accident is followed by severe constitutional excitement and local inflammation, terminating in suppuration. Numerous local applications, including anæsthetics, have been employed, with the view of expediting the expulsion of the worm, but without manifest advantages.

NEW SYDENHAM SOCIETY.

The ninth annual meeting of the New Sydenham Society was held in the rooms of Trinity College, Dublin, on the 8th inst. Dr. Charlton, of Newcastle, took the chair. The report and balance-sheet, as sent up by the Council, were read and adopted.

Report.

In preparing the ninth report, the Council has the pleasure to be able to record the continued and indeed increasing prosperity of the Society. During the past year four separate works were issued to each member, and, after discharge of all liabilities, a fair balance was still retained in the Treasurer's hands. Four works will also be published for the current year's subscription, and in all probability a similar number in 1868. The very heavy expenses which attended the reprinting of the early volumes, the issue of several costly works, and especially the annual production of the Yearbook, had the result, a few years ago, of somewhat crippling the Society's exertions in other directions. The influence of these is, however, now no longer felt; and as the large loss of members which occurred in the beginning of the American war is also now being rapidly restored, the Council looks forward with confidence to the long-continued usefulness of the Society.

During the year more than thirty full sets of the Society's publications have been subscribed for, in addition to numerous subscriptions made for single years. Of the Atlas of Plates of Skin Diseases, which is obtainable by non-members at a half subscription for each Fasciculus, 112 Fasciculi have been thus procured. The total of sub-criptions paid during last year amounts to nearly three thousand pounds.

During the year numerous proposals of new works have received the careful attention of the Council. Two new works have been adopted, and will be prepared for early publication. One of these is M. Lancereau's masterly Treatise on Syphilis, a work which has just been published in Paris, and which, in addition to original research, comprises an excellent exposition of the modern doctrines on this important subject. The second is one the publication of which will, it is believed, not only be of great scientific value, but is in some seuse a debt due to the reputation of British Medicine. The writings of the late Dr. Addison display such rare powers of clinical and pathological observation, and so abound in original suggestions, that their collection into a more accessible form will be prized by all who know them. They have in no sense as yet grown old; but, on the contrary, they contain in a most condensed form enunciations of opinions the importance of which is only just beginning to be recognised. Dr. Addison's writings comprise several small monographs, and numerous short papers in the *Guy's Reports* and *Transactions of the Medico-Chirurgical Society*. These it is proposed to collect into one volume, which will be liberally illustrated. Dr. Wilks and Dr. Daldy have very kindly, at the request of the Council, consented to act as editors.

The following are the works which now stand on the Society's list for future publication:—"Additional Fasciculi of the Atlas of Skin Diseases." Vols. II. and III. of "Hebra's Treatise on Skin Diseases." "The Collected Works of Jenner." "The Collected Works of Addison." "Lancereau's Treatise on Syphilis." "A Biennial Retrospect of Medicine and Surgery for 1867-68." (To be ready early in 1869.)

The series for this year are:—1. "Biennial Retrospect of Medicine and Surgery" (already out). 2. "Griesinger's Treatise on Mental Diseases" (already out). 3. "A Seventh Fasciculus of the Atlas of Skin Diseases, comprising Portraits of *Molluscum Fibrosum*, *Lupus-Psoriasis*, and *Common Porrigo*" (all from original portraits by Burgess). 4. Vol. II. of "Hebra's Work on Skin Diseases."

Balance-sheet for 1866.

Receipts.

				£	s.	d.	£	s.	d.
Balance in hand, December, 1865 (see preceding Balance-sheet)							1664	9	10
Subscriptions:— 32	for 1859..	..	..	£33	12	0			
31	for 1860..	..	..	32	11	0			
32½	for 1861..	..	..	34	2	6			
40	for 1862..	..	..	42	0	0			
59	for 1863..	..	..	61	19	0			
123	for 1864..	..	..	129	3	0			
565	for 1865..	..	..	593	5	0			
1724½	for 1866..	..	..	1810	14	6			
13	for 1867..	..	..	13	13	0			
Vols. of Casper		..	..	15	8	0			
Fascic. of Atlas		..	..	56	3	6			
Year Books	..	..	..	2	19	10			
Interest of Deposit	..	..	..	46	14	3			
				2872	5	7			
Less deductions	..	..	..	24	17	5			
							2847	8	2
							£4511	18	0

Expenditure.

				£	s.	d.	£	s.	d.
Folio I.	Artists, Editors, and Translators	..	..	..	..	..	1613	19	0
Folio II.	Printers	..	..	..	..	..	193	0	0
Folio III.	Paper..	..	..	..	..	..	174	18	3
Folio IV.	Bookbinders	..	..	..	..	..	257	1	6
Folio V.	Expenses of Management	..	..	..	..	..	532	17	9
	Agents' salary and percentage	..	..	£268	7	4			
	Secretary's salary, 1865	..	..	52	10	0			
	Secretary's expenses, 1866	..	..	66	11	6			
	Treasurer's expenses	..	..	3	0	0			
	Expenses of Council's meetings		..	17	2	0			
	Agent's expenditure	..	..	105	9	9			
	Bankers' charges	..	..	0	1	8			
	Insurance	..	..	2	13	6			
	Advertisements	..	..	13	12	0			
	Books bought	..	..	3	10	0			
				532	17	9			
Sum total of expenses..		..	..	..	..	..	2781	16	6
Balance in hand, December, 1866		..	..	..	..	..	1730	1	6
							£4511	18	0

The following officers were duly elected by ballot for the ensuing year. (Those whose names are marked with an asterisk were not in office last year.) *President:* *William Stokes, M.D., D.C.L. Oxon., LL.D. Edin. *Vice-Presidents:* *Robert Adams, M.D., F.R.S. Edin., Dublin; James Begbie, M.D., Edinburgh; E. R. Bickersteth, Esq., Liverpool; W. Bowman, Esq., F.R.S.; Sir D. J. Corrigan, Bart., M.D., Dublin; W. T. Gairdner, M.D., Glasgow; William W. Gull, M.D.; John W. Ogle, M.D.; *James Paget, Esq., F.R.S.; Richard Partridge, Esq.; Thomas B. Peacock, M.D.; Francis Sibson, M.D., F.R.S.; Robert W. Smith, M.D., Dublin; *Sir Henry Thompson; Sir Thomas Watson, Bart., M.D., F.R.S.; C. J. B. Williams, M.D., F.R.S. *Council:* John T. Banks, M.D., Dublin; John Barclay, M.D., Leicester; J. H. Bartleet, M.B., Birmingham; W. Martin de Bartolomé, Sheffield; *Arthur Leared, M.D.; Charles Brooke,

Esq., F.R.S.; Thomas Bryant, Esq.; W. J. Clement, M.P., Shrewsbury; William Colles, M.B., Dublin; Thomas M. Daldy, M.D.; *Herbert Davies, M.D.; Robert Druitt, M.D.; A. E. Durham, Esq.; *G. N. Edwards, M.D.; Robert Greenhalgh, M.D.; Christopher Heath, Esq.; W. M. Grailly Hewitt, M.D.; *M. H. Higginbottom, Esq., Nottingham; Thomas Hillier, M.D.; C. Handfield Jones, M.B., F.R.S.; William M'Ewen, M.D., Chester; *Alfred Meadows, M.D.; *W. D. Moore, M.D, Dublin; H. Gueneau de Mussy, M.D.; *E. L. Ormerod, M.D., Brighton; *G. E. Paget, M.D., Cambridge; *E. Pye-Smith, Esq., Hackney; J. K. Spender, Esq., Bath; A. P. Stewart, M.D.; *Edward Charlton, M.D.; Newcastle; Hermann Weber, M.D.; Erasmus Wilson, Esq., F.R.S. *Treasurer:* W. Sedgwick Saunders, M.D., 12, Queen-street, Cheapside, E.C. *Auditors:* J. S. Bristowe, M.D.; Peter Gowland, Esq.; *Edward Ray, M.D., Dulwich. *Hon. Secretary:* Jonathan Hutchinson, Esq., 4, Finsbury-circus, E.C.

After the usual votes of thanks to the retiring officers and to the Chairman, the meeting terminated.

NEW INVENTIONS.

CADBURY'S "COCOA ESSENCE" (REGISTERED).

This preparation is described by its makers as having about two-thirds of its fatty matter removed, and thereby being rendered lighter and less likely to disagree with the bilious and dyspeptic, whilst the stimulating and nourishing parts are rendered more soluble. We believe that the description which the inventors give is a true one, and that the cocoa essence is an agreeable and economical preparation. A little of it goes a great way, and with the addition of sugar and milk it forms a beverage which, besides its own nutritive qualities, is as refreshing to the mouth as the "rough cup of black tea" which many persons desire for their morning draught.

SCHWEITZER'S COCOATINA.

This is another preparation of cocoa, based on the same principles as the last—viz., the removal of superfluous fat. Both Messrs. Cadbury and Mr. Schweitzer reprobate the ordinary custom of making up cocoa with starch—a process which renders it "bilious." Compared with the cocoa essence, we should describe that as more astringent and refreshing, and the cocoatina as smoother. We believe that the use of cocoa and its preparations in invalid diet is capable of great development and great variety. For some patients we want all the fat, and if this is hidden by starch we do not quarrel with it; for others we want the bitter, astringent, and tea-like principles. Again, the alliance with sugar is not without its uses. An eminent Physician much plagued by gout told us that he had a great craving for sugar, but that the only form in which he could take it without suffering was that of chocolate drops or lozenges. We may say, in conclusion, that Cadbury's cocoa essence seems so cheap that it might be introduced into many boarding-schools in lieu of the discoloured watery liquid which is served out under the misused name of tea. Moreover, why does not cocoa figure more frequently at the dinner table as an ingredient in creams, custards, and puddings of the farinaceous or "nursery" kind?

NEW WHEATEN BISCUITS (HUNTLEY AND PALMER, READING).

Food, to be perfect, should not only provide for the bulk and nutrition of the tissues, and for the forces which they exert, but should also contain elements capable of acting upon the eliminatory organs, so as to secure the regular expulsion of all undigested and superfluous matters, and of the results of wear and tear of tissue. With regard to the bowels, it is but too notorious that ordinary food and ordinary habits of life are insufficient to keep them in proper action. Hence the vast demand for purgatives, which are of four orders:—First, a more generous diet; for it is notorious that apprentices, milliners' girls, governesses, and others who live on a plain diet, become terribly constipated, because that diet is too plain—too wholesome, if such a word may be used—just as some human beings, though very good, are insipid and tiresome, and have no fun or *go* in them. For such patients the best treatment is an occasional feast and glass of good wine, and the addition to their food of more meat, more fat, and something more highly seasoned. The second class is the saline or chemical purges, which are, of all things, to be avoided as habitual remedies, except by people who eat and drink too much, or who have some special malady. Thirdly, come the purgatives of vegetable origin, and, above all, that most ancient remedy aloes, which has been used from time immemorial, as that which more than any other promotes the healthiest action of the large intestines. We cannot pretend even to hint at the number of vegetable purgatives of different degrees of mildness or virulence, from the familiar spinach to the virulent elaterium; but any one who desires to know the extent to which the human bowels need correction may look into the Pharmacopœias of all civilised nations, or may try to count the legions of quack preparations, or may stand for an hour in any popular chemist's shop on a Saturday night and count the purchasers of pills. Lastly, since it is clear that the *débris* and undigested residue of the food should possess stimulating qualities capable of producing expulsion, recourse may be had to substances tending to produce mechanical irritation of the bowels—such as the husks and offal of grain and fruit, which are swallowed by all uncivilised peoples, but which the civilised are careful, and perhaps too careful, to eliminate. The biscuits before us are, to our knowledge, the result which a philosopher has arrived at, after innumerable trials on his own person, of the kind of food that should secure comfortable action without pills. They are made of whole wheat ground for the purpose, the bran of which is the irritating agent. They are of two sorts—sweet and plain—and may be used either at tea and breakfast, or with meat at dinner, as the consumer pleases, and in such quantities as may be requisite. They are not cloying and indigestible like brown bread new, nor dry and husky like brown bread stale, but are smooth and agreeable to the palate, and well worthy of the recommendation of the Practitioner whose patients are tired of pills. It must be borne in mind that all purgatives of this fourth, or mechanical class—and they form a very long list—are liable to two mischances. Should the bowels be too torpid or loaded at beginning their use, they are liable to collect in the colon, and to cause, after a time, an unpleasant griping; and if the rectum be very tender from pills, they may cause a good deal of irritation in that quarter. Still, purgatives of this class are a natural and agreeable remedy, and every wise Practitioner will be glad of another string to his bow.

BECKETT'S SYRUP OF ORANGE AND QUININE.

This is a very agreeable compound if diluted to the proper pitch by water, and, being very palatable, will be a convenient mode of exhibiting the remedy to children. One disadvantage it possesses in common with other syrups—if exposed to the air for any length of time, it rapidly moulds on the surface. This is a great inconvenience for those who want to take a spoonful of the preparation now and again only. We advise Mr. Beckett to set about remedying this defect, which can be easily done.

MEDICAL NEWS.

University Intelligence.—University of London.—The following are lists of Candidates who passed the respective Examinations indicated:—

First M.B. Examination.—Entire.

Examination for Honours.

Anatomy.

First Class.—Richard Lawton Roberts (Exhibition and Gold Medal), University College; William Richard Gowers (Gold Medal), University College.

Second Class.—Edwin Rayner, B.A., University College.

Organic Chemistry and Materia Medica and Pharmaceutical Chemistry.

First Class.—John Davies Thomas (Exhibition and Gold Medal), University College; Richard Lawton Roberts (Gold Medal), University College.

Preliminary Scientific M.B. Examination.

Examination for Honours.

Chemistry and Natural Philosophy.

First Class.—Arthur Richard Saunders, University College.

Third Class.—Edward Bibbins Aveling, private study; James Barry Ball, University College Hospital; William Williams, Guy's Hospital; Joseph Theodore Ingoldby, Guy's Hospital; William Whitchurch Taunton, University College; Thomas Jones, Guy's Hospital.

Biology.

First Class.—John Mitchell Bruce, University of Aberdeen.

Third Class.—Edward Bibbins Aveling, private study.

FIRST B.SC. EXAMINATION.—ENTIRE.

EXAMINATION FOR HONOURS.

Mathematics and Mechanical Philosophy.

First Class.—John Hopkinson,(a) Owens.

Chemistry and Natural Philosophy.

First Class.—John Hopkinson (Exhibition), Owens; Arthur Robinson, Owens.

Second Class.—William Thorp, Royal School of Mines; James Bottomley, B.A., Owens.

Third Class.—James Barry Ball, University.

Biology.

First Class.—Arthur Robinson, Owens.

Second Class.—Francis James Carey, M.A., Guy's Hospital.

Third Class.—James Bottomley, B.A., Owens.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—During the recent sittings of the Examiners the following gentlemen passed the Final Examination of the Faculty:—

James P. Bulling, Glasgow; James Broatch, Brymbo, Wales; Neil Farreu, Glasgow; Johnson Martin, Hearsley, near Bolton; William N. Symonds, Crowland, Lincolnshire.

The following gentlemen passed the First Professional Examination:—

John Bradley, Birmingham; Patrick Burke, Limerick; John L. Caldwell, Glasgow; Thomas Delany, Dublin; James A. Graydon, Belfast; John Lord, Manchester.

The following gentlemen passed the Final Examination for the Double Qualification, granted conjointly with the Royal College of Physicians of Edinburgh:—

George Broughton, jun., Leeds; Robert Colquhoun, Glasgow; James Dalziel, South Shields; Joseph Davies, Swansea; Antonio S. Gomes, Bombay; Daniel Johnstone, Cleland; George W. Johnstone, Staffordshire; William D. Macfarlane, Glasgow; Duncan C. Milloy, Glasgow; Alexander Porter, Glasgow.

The following gentleman passed the First Examination for the Double Qualification:—

James Anderson, Glasgow.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 15, 1867:—

Thomas Percival, 5, Vernon-road, Leeds; Frederick Morrish Pierce, Higher Broughton, Manchester; William Jebson Stothard, Withington, near Manchester; Frederick Douglas Power, 32, Queen square, W.C.; William Ellis Clendinnen, Cheswardine, Salop; Joshua William Morison, Portclew House, Pembroke; Samuel Freeman Bagnall, 10, Caroline-street, Bedford-square; Saml. Jackson, Providence-place, Halifax; John Johnson, Darlaston, Staffordshire.

The following gentleman also, on the same day, passed his First Examination:—

Fletcher Beach, King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAMS, T. RUTHERFORD, M.D., L.R.C.P., has been appointed Surgeon to the Croydon General Hospital.

BEAVAN, J., M.R.C.S.E., has been appointed House-Surgeon to the General Infirmary, Hereford.

DEWAR, Dr. D., has been appointed Surgeon to the Royal Infirmary, Glasgow.

DUNLOP, Dr. JAMES, has been appointed Surgeon to the Dispensary, Glasgow.

JOHNSON, JEFFERY S., M.R.C.S., L.S.A., has been appointed Surgeon to the Croydon General Hospital.

LANCHESTER, HENRY T., M.D., F.R.C.S., has been appointed Surgeon to the Croydon General Hospital.

ROPER, ALFRED GEORGE, M.R.C.S. and L.S.A., has been appointed Surgeon to the Croydon General Hospital.

WOOD, H., M.R.C.S.E., has been appointed House-Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

BIRTHS.

BARKER.—On August 20, at 27, Wimpole-street, W., the wife of T. A. Barker, M.D., of a daughter.

CHRISTISON.—On August 18, at 40, Moray-place, Edinburgh, the wife of A. Christison, M.D., Surgeon H.M. Bengal Army, of a daughter.

GIBB.—On August 11, at Newcastle-on-Tyne, the wife of C. J. Gibb, M.D., of a daughter.

HAYWARD.—On August 15, at 38, Harley-street, Cavendish-square, the wife of H. H. Hayward, M.R.C.S., of a daughter.

LEWIS.—On August 15, at 27, Dorset-place, Portman-square, the wife of F. Lewis, M.R.C.S., of a son.

MILLER.—On August 21, at 38, Bedford-place, Russell-square, the wife of C. M. M. Miller, Staff Surgeon, of a daughter.

MORGAN.—On August 14, at 24, Villier-street, Bishopwearmouth, the wife of G. B. Morgan, L.R.C.S.I., of a daughter.

(a) Obtained number of marks qualifying for Exhibition.

NOOTT.—On August 16, at Ventnor, Isle of Wight, the wife of Dr. W. F. Nootт, of a son, who did not survive his birth.

PICARD.—On August 9, at 24, Abbey-road, St. John's-wood, the wife of Dr. K. Picard, of a daughter.

SEALEY.—On August 17, at Rochester, Kent, the wife of J. W. Sealey, Surgeon R.N., of a son.

SHILLITOE.—On August 19, at Beech Mount, Sydenham, the wife of B. Shillitoe, F.R.C.S., of a son, stillborn.

SILLIFANT.—On August 6, at 1, Thornhill square, Barnsbury, the wife of H. Sillifant, M.D., of a son.

SINCLAIR.—On August 12, at 7, Lyndhurst-villas, Peckham, the wife of Dr. D. Sinclair of a son.

MARRIAGES.

BUCHAN—ROBSON.—On August 17, at St. Peter's, Newcastle, C. F. Buchan, M.D., of Pembury, Tunbridge Wells, to Amy, the eldest daughter of J. Robson, Esq., of West Chirton, Northumberland.

DOUGLAS—PANKHURST.—On August 20, at St. Bartholomew's, Sydenham, D. Morton Douglas, L.R.C.P., of Swansea, to Rosina S. Pankhurst, of Caledonian-cottage, Sydenham.

DYTE—SOLOMON.—On August 14, at the West London Synagogue, D. H. Dyte, M.R.C.S.E., 15, Bury-street, E.C., to Sarah, eldest and only daughter of C. Solomon, Esq., 22, Wood-street, E.C. No cards.

GARDINER—GRANT.—On August 19, at St. Paul's, South Kensington, W. A. Gardiner, Esq., Medical staff, to Caroline Katherine, daughter of the late A. Grant, Esq., Clonakilty, County Cork.

JEFFERSON—CAVELL.—On August 9, G. E. Jeaffreson, M.R.C.S., Framlingham, to Helen Anne, second daughter of the late E. Cavell, Esq., of Bawdsey Hall, Suffolk. No cards.

LUSH—TAYLOR.—On August 20, at the Parish Church of Ashton-under-hill, by the Rev. J. Harrison, LL.B., Vicar of Beckford, William George Vawdrey Lush, M.D., F.R.C.S., of Weymouth and Melcombe Regis, Dorset, to Anne, eldest surviving daughter of Mr. Thomas Taylor, of Ashton-under-Hill, Tewkesbury, Gloucestershire. No cards.

SHELDON—FAVENC.—On May 23, at Drayton, Queensland, W. Sheldon, M.D., of Tenterfield, New South Wales, to Mary Emily Charlotte, eldest daughter of P. Favenc, Esq., of Drayton, Queensland.

WATSON—SANDERSON.—On August 21, at St. Selskar Church, Wexford, Ireland, W. Watson, Surgeon, Lancaster, to Sarah Jane, second daughter of Lancelot Sanderson.

WILLOUGHBY—WRIGHT.—On August 15, at the parish church of Ashford, Kent, by the Hon. and Rev. C. J. Willoughby, M.A., rector of Wollaton, Notts, assisted by the Rev. W. Hynde, B.A., Edward F. Willoughby, M.R.C.S., of Redland, Bristol, to Augusta Anne, eldest daughter of the Rev. R. H. Wright, M.A., head master of the Grammar School, Ashford.

WILSON—BROWN.—On August 15, at Colton House, Fifeshire, by the Rev. James B. Brown, John Wilson, M.D., West George-street, Glasgow, to Harriet Joan Murray, second daughter of Walter Brown, Esq., W.S., of Colton.

DEATHS.

COOPE, A. F., M.D., at Ellen's-villa, South Norwood, on August 15, aged 55.

COSTELLO, W. B., M.D. (editor of the "Encyclopædia of Surgery," etc.), at Paris, on August 15, aged 67.

HUGGINS, W., M.D., M.R.C.S. (late of San Fernando, West Indies), at the Tavistock Hotel, Covent garden, on August 14.

JARVIS, JOHN, Surgeon, at 13, Hart-street, Bloomsbury, on August 12, in his 92nd year.

LLEWELLYN, O. J., L.R.C.S. Edin., Surgeon H.M.S. *Hydra*, at the Royal Naval Hospital, Malta, on August 3.

MORLEY, G., M.R.C.S.E. (formerly of Leeds), at La Hauteur, St. Brelades, Jersey, on August 14.

RANSOME, J. A., F.R.C.S.E., at Flixton, Lancashire, on August 6, aged 62.

TURNER, W., M.D. (late of Grantham, and formerly Surgeon of the 7th Royal Veteran Battalion and of the 25th Regiment and 22nd Light Dragoons, etc., etc.), at St. Leonard's, Torquay, on August 17, in his 89th year.

VACANCIES.

BIRMINGHAM LYING-IN HOSPITAL.—Resident Surgeon.

ROYAL GENERAL DISPENSARY, BARTHOLOMEW-CLOSE.—Resident Medical Officer.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Leominster Union.—Mr. Philip Cowen has resigned the First District and the Workhouse; area 39,519; population 10,740; salary £160 per annum for the District; £40 per annum for the Workhouse.

Newbury Union.—Dr. Probyn has resigned the second district; area 20,633; population 6899; salary £140 per annum.

Salisbury Incorporation.—Mr. Winzar has resigned; area 480; population 9088; salary, £75 per annum for the District; £40 per annum for the Workhouse.

South Molton Union.—Mr. J. R. Elliott has resigned the Twelfth District; area 18,397; population 323.

APPOINTMENT.

Petworth Union.—Theodore K. Hubert, M.D. St. Andrews, M.R.C.S. Eng., L.S.A., to the Third District.

ROYAL INFIRMARY FOR DISEASES OF THE CHEST, CITY-ROAD.—We are informed that a large proportion of the Medical officers attached to the above-named institution have determined on sending in their resignations. Whether the governors will accept them, remains to be seen.

The International Botanical Congress was held in Paris, on Friday, 16th inst., in the rooms of the Imperial Society of Agriculture. M. Alphonse de Candolle presided. Almost every European country was represented, and the collection of botanical *savants* was both a large and a distinguished one.

A Double Infanticide has occurred in France. The mother had been delivered of twins, but forgot to hide the placenta after she had destroyed the children. The Physician, discovering a double cord, accused her of the crime, to which, surprised by his penetration, she confessed.

A Photo-sphygmograph.—At the meeting of the French Academy on Monday, 19th inst., M. Ozanam described a piece of apparatus which he has devised for the purpose not only of registering the movements of the heart and pulse, but of recording them photographically, so as to render the employment of the artist in engraving the record absolutely unnecessary.

Poisoned by Absinthe.—A curious case of suicide with absinthe is reported in the papers. The dress of the deceased contained a note, in which she stated that she had taken the *liqueur* for the purpose of self-destruction.

In the lecture-room of Charing-cross Hospital a plain but elegant tablet has been erected to the memory of Dr. H. Llewellyn, who went down in the *Alabama*. The tablet is the work of Mr. Hale, sculptor.

A case is this week recorded of an infant having been suffocated by the teat of a feeding-bottle being forcibly held in the child's mouth by its wrappings.

The Cholera in the Kingdom of Italy.—According to the *Gazetta Medica Lombardia* (August 12), the present epidemic of cholera seems disposed to take on a wider geographical extension than any of its three predecessors. It is stated also that, in the present disorganised condition of authority in various parts of that country, not only is there not the means of putting into force the proper sanitary regulations, but that these are opposed by ignorance, prejudice, and interest, the opportunity being taken to add to the general confusion which springs from various causes, such opposition, too, not being confined to the lowest of the populace. The city of Milan itself has not yet suffered much from the epidemic, as only 148 cases have occurred since June; but in various of the provinces of the kingdom it is spreading fast. In Naples and Sicily many Medical men have fallen victims to the epidemic, and it is pleasing to learn that a law is intended to be introduced to provide for the relatives of those who so lose their lives. It is true, it is at present only in the stage of *projet* or bill.

The Musical "Graces" in Trinity College, Dublin.—Among the most pleasing reminiscences of the recent visit of the British Medical Association to the Irish Metropolis, will be, to the members who had the good fortune to be present at the banquets, those connected with the classical hospitality of the Provost and Fellows of Trinity College. It was the generous wish of the Board to have received in detachments all the members of the Association at these entertainments, but the accomplishment of this wish was restricted by two fixed quantities, the limited number of open days (three), and the limited number of guests which could be received at a time, without marring the comfort and elegance of their reception. However, on the Tuesday, Wednesday, and Friday of the week of meeting, a party of upwards of forty sat down, each day, in the splendid old oak dining hall, adorned with the full-length portraits of Flood, Grattan, Beresford, and others of Ireland's most distinguished sons. But while so many members of the Association enjoyed the rich hospitality spread before them, and admired, as all did, the quiet dignity with which everything was conducted—the sole exception to the same being the enthusiasm with which the only toast allowed, that of "the Queen," was responded to—they were probably unaware of the high compliment which was paid them in the fact that, for the first time since the foundation of the College, the old Latin graces before and after meat, which have been in use for nearly three hundred years, having been lately beautifully set to music by Dr. Stewart, the distinguished Professor of Music in the University, and by one of the junior Fellows of the College, were exquisitely sung by the Professor, the Fellow in question, and two or three other amateurs. The effect was surpassingly fine. Several of the members present having expressed a wish to have the music, we are authorised to state that the Board have consented to have it published, and that any one who may desire to possess a memorial of the evening spent in old Trinity can have a copy by applying, after a few days, to the Rev. J. P. Mahaffy, F.T.C., Trinity College, Dublin. In addition, a selection of glees, by English and German composers, were sung, and among others Horace's Ode, "Integer Vitæ," set by Fleming to music.

Dinner to Messrs. Ledwich and Mason at Liverpool.—The former pupils of the Ledwich School of Medicine, Dublin, now practising in Liverpool, entertained their old masters, Messrs. Ledwich and Mason, to a dinner on Saturday, the 17th inst., at the Alexandra Hotel, Liverpool. The meeting seems to have been a most harmonious one. Certainly, the guests were fully worthy of the honour done them, for few men have attempted more or been more successful in promoting Medical education in Ireland.

Cattle Plague Inquiry.—For the week ending August 17 no fresh outbreaks have been reported from any part of England, Wales, or Scotland. One case of cattle plague is reported to have occurred during the week, being a decrease of ten on the previous return. The diseased animal was killed. There were 103 healthy cattle slaughtered to prevent the spread of the disease. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,923, and 56,900 healthy cattle have been slaughtered to prevent the spread of the disease. These numbers have been corrected from a revised report received from one of the inspectors, and referring to some old cases.

Royal College of Surgeons in Ireland.—The President, Vice-President, Council, and Fellows met on Thursday last, at three o'clock, for the purpose of conferring on Mr. Syme and Mr. Bowman, F.R.S., the Honorary Fellowship of the College. The President having entered the Board-room, and taken his seat, Mr. Syme and Mr. Bowman were presented to him. The President (Dr. Robert Adams) then said—Mr. Professor Syme and Mr. Bowman, you have been made aware of the circumstance that on August 1 you both have been unanimously elected hoooorary Fellows of the College, by a resolution of Council. We now avail ourselves of your presence in our city to put into your hands our diploma. We feel that in this place it would be quite unnecessary to state our reasons for so acting, or to add what you have done for the advancement of the science and art of Surgery. Both of your names are interwoven with the progress of Surgery, and the shelves of the library of our College have long contained your several works. By handing to you these diplomas, and adding your names to the scanty, or rather *recherché* list of honorary fellows, we give the best proof of the estimation in which you are both held in this College. By so acting we express a wish to do you an honour, and cannot doubt but that, at the same time, the College itself will be really honoured by having added to its list of honorary fellows the names of two such men as Professor Syme and Mr. Bowman. I cannot conclude without congratulating you both on the eminent position you have attained, the one in Edinburgh, that revered seat of learning and scientific Medical education, and the other in London, the capital of the world; and may I add that I feel happy that, from the circumstance of my being now President of this College, I have thus been afforded the opportunity of being the medium of communicating to two valued friends the greatest distinction this College has to bestow? The diplomas of Fellowship, enclosed in handsome morocco cases, were handed to Mr. Syme and Mr. Bowman, amid loud applause. Mr. Syme then said: Mr. President and Gentlemen, many years ago, when little more than a student, I happened to be present when the foundation stone of this magnificent building was laid by the Marquis Wellesley, and then very little anticipated that within its walls I should now receive such a distinguished honour as that which you have been pleased to confer upon me. I fully appreciate its value, and beg you will accept the assurance of my deepest and sincerest gratitude. Mr. Bowman said: How can I express my grateful feelings on receiving so unexpected an honour from this great College, representing Irish Surgery, and in the presence of so many distinguished men? I am reminded by the place in which I stand, and by your honoured presence, sir, in that chair, of days long since past, when you, and others of your colleagues in the great clinical school of Dublin, inspired a young student with sentiments of admiration which the lapse of time has only served to strengthen; and when you admitted me to your friendship, what I then saw of the system of teaching pursued in the wards of the great Hospitals of your city, and the careful study I made of the stores accumulated in your museums (and I

referred to my notes of them but yesterday), convinced me that the Dublin School of Medicine and Surgery—eminently honest, scientific, and practical—was second to none in Europe, if, indeed, it did not in some respects surpass most. I found Colles, Cusack, yourself, sir, Carmichael, Porter; with Graves and Stokes in Medicine, laboriously and richly turning to the best uses of science and of instruction the great opportunities you possessed—exhibiting yourselves to your students as students yourselves in the great field of nature, and imbuing them thus with your noble spirit as well as with your doctrines. The eminent merit of Dublin as a Clinical School of Medicine and Surgery has been, perhaps, less appreciated than it deserves by the world at large, owing to its geographical position, somewhat aloof and insulated from the ordinary tracts of travel. The more it is known by personal inspection, the more highly, I am certain, will it be esteemed; and I am conscious that no reward which so humble an individual as myself can possibly receive for Professional labours, could be more flattering than spontaneous and honourable testimony of the good opinion of such a corporation as yours. I may be permitted to say that its value is enhanced by the circumstance that, in receiving it, I stand by the side of one of the most distinguished men that any age of great Surgeons has produced. I hope I shall not be considered out of order if I add my grateful acknowledgments, as an individual member of the British Medical Association, for the grand hospitality with which it has been received by the Profession in Ireland. How auspicious, in all respects, the present meeting appears, and how calculated to promote that unity of sentiment, of thought, and action, so necessary to be fostered through the whole body of our Profession in the present day. Our Association is growing more and more into harmony with the spirit of the age in which we live; may all its wise purposes be accomplished. May it be a bond—it, or something like it, must apparently be the main bond of the future—between all our members, if all are to be brought truly into one community and fellowship. For local colleges and corporations which have a local origin and seat, must ever remain more or less local and restricted—must have local duties, local interests, local sympathies. That only can bear an universal character which is migratory, finding its home everywhere in turn; which is willing to embrace and include every honest earnest member of our Profession, wherever his lot may chance to lie, wherever his field of honourable toil, whatever the style or title by which he may be addressed. Gentlemen, I thank you. The College then adjourned.

THE TERM TYPHUS IN ENGLISH AND GERMAN.—Dr. Bäumler, in a communication to the *Deutsches Archiv* on abdominal typhus in England, gives a caution to his readers as to the different use of the term typhus in Germany and England, which those of our readers who are in the habit of consulting German Medical journals will do well also to bear in mind. The term typhus, he observes, is used in Germany as a general term to indicate *T. abdominalis* as well as *T. exanthematicus*, and especially the former, which is almost exclusively the form of the disease met with in that country. In England, on the other hand, it denotes only the *T. exanthematicus*, the abdominal typhus being known as typhoid, enteric, or, as proposed by Murchison, pythogenic fever.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Williams's valuable paper "On the Temperature of the Insane" shall be inserted as soon as possible.

Mr. Taylor's pamphlet either failed to reach us or was overlooked. No recommendation is needed—"Good wine needs no bush."

An Inquirer.—He is legally entitled to your services, but ordinarily the latter years of apprenticeship are spent at a Medical school.

A Correspondent who was good enough to favour us with a manuscript which he wished to have returned to his address, "Cottage-lane," is informed that a private letter, which was posted along with the manuscript, has been returned to us through the Dead Letter-office.

Inquirer.—An additional fee of five shillings is exacted for the registration of each subsequent qualification.

SEA-SICKNESS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Whether Dr. Chapman's ice-bags may prove a remedy for sea-sickness I know not, but one thing I do know, from personal and other experience, that a compress over the epigastrium, bound on by an ordinary bandage of from 12 to 14 yards long, applied as follows, is a most effective remedy, drinking, whilst on the sea, iced champagne, or even plain iced water with a little brandy in it. The bandage is to be applied from the hips up, quite over the epigastrium, observing to apply it, as tightly as can be borne, over the compress, so as to cause a degree of pressure on the pit of the stomach. I believe in the majority of cases this will suffice, but we know that there are some persons whose temperament and constitution are such that nothing will arrest sea-sickness. However, the above remedy is simple and well worth a trial, as it requires no ice-bags, etc., which, to say the least, are cumbersome and troublesome expedients.

I am, &c.

Liverpool-lodge, Brixton-hill, August 15. H. HASTINGS, M.D., etc.

A NEW RECIPE FOR BEEF-TEA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am a General Practitioner, and often have patients in lodgings; and often have I wondered at the perfection of the beef-tea made in those establishments, especially at its perfect transparency, insipidity, and destitution of all positive qualities, save those derived from greasy hot water, salt, and pepper, and a taste something like that of boiled dish-clout. Many is the time that a reluctant landlady or cook has been summoned up, has been interrogated on the method of fabricating this useful article, and has assured me that my instructions have been implicitly followed—so much beef, minced fine, put on with cold soft water, etc. etc.—but the result has been tasteless as decoction of paper. The thing was inexplicable. At last, however, one day last week a respectable young woman of Irish parentage, who was "general servant" at a lodging-house, came to my surgery to ask for some medicine for herself, and, after I had given it her, I said, "I would tell you to drink some beef-tea, Mary; only you can't make it at your house." The girl looked knowing, and said something about secrets of the kitchen, which tempted me to press her on the subject, so that at last I drew forth the following confession:—"Why, shure, your honner, your instructions is followed to a nicety—plenty of the best lean beef is got, and the fat cut off, and 'tis minced fine, and put on with a little cold water, and heated very slowly, and at last it comes to a boil, and boils for some minutes, and missis watches it carefully all the time. Then she strains it out into a teacup, and drinks it up herself, and if there is any lady downstairs of her acquaintance she gives her a share, and sometimes lets me taste a drop. Then she half-fills the saucepan with boiling water, and puts in a little pepper and salt, and boils it up, and then pours *this* off, and says to me, 'Now, take this to the party upstairs.' Missis says she don't hold with giving beef-tea to the sick too strong, and she ought to know, for many a sick person as has come up for advice has died in her house. So now you know all about how to make beef-tea." I will not spoil this story by addition, but remain,

Your obedient servant, G. P.

OVERWORKED ARTISANS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—My attention having been called to an extract from your periodical, headed "Overworked Artisans," in which the following passages occur:—"In the *Star* of Wednesday there appears a letter from a workman on behalf of his fellows, from which, if his statement be true, it seems that the occupation of gas-workers is indeed a 'perpetual grind' of the worst description. It appears that there are at present two gangs of workmen employed in each gas factory, each gang working in the whole about ninety hours a week, or rather more than twelve hours a day"—I can assure you that this is not the fact; for, although the men are on the premises nearly eighty-four hours a week, or twelve hours a day, they are only at work during six hours and a half to seven hours, or (say) forty-nine hours a week, and mostly spend the remainder of the time in dining and sitting rooms provided for their use by the company.

I am, &c. R. J. LAING, Engineer and Manager.

Independent Gaslight and Coke Company, Haggerstone, Middlesex, N.E., August 20.

MEDICAL ADVERTISING.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am very glad to perceive that in your last number you animadverted upon that trading and advertising spirit which threatens every day to become a bigger evil. Nothing tends to degrade us more as a Profession than the readiness with which all kinds of items are seized upon by Medical men as excuses for parading their names before the public; add, unhappily, the journalism of the day, with its ramifications everywhere, offers peculiar facilities for doing this. Professional and lay journals are alike made use of, and there is considerable subtlety and cleverness displayed in it.

Take the *Dublin Quarterly* for August, which is a very good number. It serves to illustrate, however, the merits and defects of magazine articles. Compare the first paper, on Aphasia, with that on Chloroform. The one illustrates the best—the other, I have no hesitation in saying, the worst—kind of writing. Dr. Popham's essay is the production of a scholarly mind; he has something to say on a very difficult subject, and he says it well. Altogether it is a good specimen of how much may be done in a short article by a man with the necessary grasp of mind and the requisite powers of analysis.

The paper on chloroform is simply an *omnium gatherum*, containing as little to inform as to interest anyone. The writer manages to "air" all that he happens to know, and a good deal that he does not know, for the benefit of a benighted Profession and his own peculiar edification. It is of no possible consequence, of course, that a host of things are introduced in the paper which hang to its title by the loosest connexion possible. The said things are "aired," and we are let into the writer's confidence in the easiest and frankest way imaginable. We leave off equally confounded by the variety of his learning and the extensive circle of his acquaintance. The surnames of several distinguished men of our Profession are paraded, without any prefix of Dr. or Mr., with an easy sort of familiarity which may pass with some for geniality, but with others for vulgarity. A little patronising—a kind of patting the back, in a moral sense—which is anything but pleasant to the gentlemen themselves, is introduced. It is "my excellent," "my talented," or "my sedulous and able" friend, A., B., or C.

Now, we can assure the writer that every one knows that he knows all about chloroform, and that nobody else does. Everybody must be aware by this time that he says he has witnessed 20,000 operations under its influence.

As I hate to be told the same thing over and over again, particularly when I have to pay for the boredom, I made up my mind never to read anything more about chloroform, but, Sir, it is no good. The man is irrepressible. You never know in what sort of guise you will meet him next. I daily purchase my *Pall-mall Gazette*, and give myself up to its enjoyment; when I have got it, it is all I can do to prevent appearing

churlish to my neighbour in the next seat of our railway carriage, when he will persist in intercalating his prognostications about the harvest between the sentences of the writer's leader on "The Triumph of Pure Reason"

It is really too bad for a man to inflict his company on me unasked, but it becomes intolerable when he insinuates himself into places where custom has led me to expect a pleasant friend. Having enjoyed my "Triumph of Pure Reason," I turn over a page or so, and light upon "Hay Asthma," and my old chloroform friend turns up again. It is a wonder that he is not himself the victim of the dyspnœa he speaks of, for the inflated style of his writings would have caused half a dozen authors to feel "blown" long ago. This exaggerated windy diction tells, too, with women. My wife, if she has a peculiar weakness, it is fancying herself susceptible to every disease she reads about. For all I know, she may imagine herself liable to "hay asthma," and be applying "a lip salve of glycerine and sticky gum about her mouth" on his advice, to the infinite disgust of Yours, &c. CAPRICORNUS.

Mugwort in Skin Disease.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have been for many years occupied in testing the effects in cutaneous eruptions of the fresh infusion of some of our common herbs formerly in use in the country. My object has been to avoid as much as possible the mineral treatment. I can bring before your notice several important results.

First, the common mugwort, *Artemisia vulgaris*, order *Compositæ*. I have found the infusion of this herb a specific, if the word may be allowed, for common boils and all inflammations similar in character. The most intractable and severe cases have invariably yielded to a short course of this treatment. For psoriasis I have also found it an admirable remedy.

A member of our Profession, recently retired from a large practice, was cured by the mugwort, though the eruption had for a long period resisted the arsenical plan of treatment. His health was at the same time very much improved. In cases of sore leg, often compounded of ulcer, eczema, and psoriasis, its effects have been markedly beneficial. Mugwort, being a stimulant tonic, is unsuitable where much irritability of the stomach or bowels exists. It is improved by the addition of alkalies, but acids decompose the infusion. When arsenic is considered indispensable, the medicine greatly increases the therapeutic effect of that mineral. If administered in large doses, it often causes an eruption *sui generis*, and I believe its curative power in skin disease to be in a great measure due to this specific action. In severe constipation I have seen the happiest results when given in combination with small doses of aloes. Mr. Thornton, of Margate, is acquainted with the excellence of this medicine, as I supplied both him and my father-in-law, the late Mr. Hunter, his partner, with considerable quantities in 1864, 1865, and 1866.

Having given mugwort in some hundreds of mixed cases, I am able to speak not only with confidence, but from a large experience of nearly seven years. The best method of preparation is as follows:—Take 1 lb. of the herb, and chop fine with a chaff-cutting machine, put into a gallon jug, fill with boiling water. Let this infusion stand near the fire for six hours; strain, and boil down to half a pint. Of this concentrated preparation, let one to two teaspoonfuls be taken three times a day an hour after meals. The addition of tincture of orange-peel will remove the flatness of the taste. I am, &c. SAMUEL CLEWIN GRIFFITH, M.D.

57, Wimpole-street, Cavendish-square, W., August 21.

COMMUNICATIONS have been received from—Dr. H. HASTINGS; INQUIRER; Dr. HESLOP; Mr. WM. BIRD; Mr. FRANCIS TAYLOR; Mr. BOYLE; Mr. MEREDITH; Dr. DOBELL; G. F. H.; Mr. LAING; Dr. S. W. D. WILLIAMS; Dr. SUCKLING; DUBITANS; Dr. GRIFFITHS; Dr. RUTHERFORD ADAMS; CAPRICORNUS; Dr. JUNKER; Mr. WALTER TYRRELL; Dr. BARNES; Dr. HUGHLINGS JACKSON; Mr. J. CHATTO; Sir J. Y. SIMPSON, Bart.

BOOKS RECEIVED—

Photographs of Eminent Medical Men, Vol. II., No. 5—Taylor's British Guiana—Report of Aberdeen Lunatic Asylum—Montgomery on Formation of so-called Cells—Halford on Death from Snake Bite—Williams on the Climate of the South of France—Parkes on the Elimination of Nitrogen.

PERIODICALS AND NEWSPAPERS RECEIVED—

The Jamaica Guardian—Jamaica Gleaner—Jamaica Morning Journal—Jamaica Colonial Standard—Birmingham Daily Post—L'Union Médicale—Gazette Hebdomadaire—Laboratory—Cheltenham Express—Symons's Meteorological Magazine—Mouvement Medicale—Medical Press—Melbourne Age—Indian Medical Gazette—Journal of Scottish Meteorological Society.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 17, 1867.

BIRTHS.

Births of Boys, 1017; Girls, 980; Total, 1997.
Average of 10 corresponding weeks, 1857-66, 1776·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	698	693	1391
Average of the ten years 1857-66	649·0	616·7	1265·7
Average corrected to increased population ..	..	..	1337
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	5	2	..	5	2	20	3
North ..	618,210	0	2	5	1	4	16	37	8
Central	878,658	3	3	4	3	..	8	27	..
East ..	571,158	3	1	5	3	5	9	55	1
South ..	773,175	5	3	18	1	9	11	52	3
Total ..	2,803,989	17	14	35	8	23	46	200	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·789 in.
Mean temperature	66·1
Highest point of thermometer	89·0
Lowest point of thermometer	50·2
Mean dew-point temperature	57·7
General direction of wind	S.W.
Whole amount of rain in the week	0·77

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 17, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the year 1867.	Persons to an Acre. (1861.)	Births Registered during the week ending Aug. 17.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Aug. 17.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	1997	1421	1391	89·0	50·2	66·1	0·77	78
Bristol (City) .	165572	35·3	115	74	154	84·9	49·0	64·4	0·26	26
Birmingham (Boro')	343948	43·9	201	167	159	87·0	52·0	64·6	0·99	91
Liverpool (Borough)	492439	96·4	344	285	255	86·2	54·1	65·1	0·23	23
Manchester (City) .	362323	80·9	260	205	†178	..	..	..	..	..
Salford (Borough) .	115013	22·2	82	58	61	82·3	53·3	63·4	0·42	42
Sheffield (Borough).	225199	9·9	149	119	105	84·1	51·2	62·6	1·18	119
Leeds (Borough) .	232428	10·8	260	118	130	89·0	52·5	64·9	1·87	189
Hull (Borough) .	106740	30·0	77	49	47	..	..	..	..	..
Newcastle-on-Tyne, dc.	124960	23·4	104	66	68	80·0	52·0	62·9	0·90	91
Edinburgh (City) .	176081	39·8	107	85	73	76·7	52·0	61·0	0·20	20
Glasgow (City) .	440979	87·1	312	257	210	..	..	..	..	..
Dublin (City and some suburbs) .	319210	32·8	136	‡157	181	79·6	47·4	62·4	0·28	28
Total of 13 large Towns . . .	6187764	34·8	4144	3061	2862 Week ending Aug. 10.	89·0	47·4	63·7	0·70	71
	(1863)				Week ending Aug. 10.		§			
Vienna (City) .	560000	..	..	..	246	..	..	65·8	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·789 in. The barometrical reading decreased from 30·02 in. on Sunday, August 11, to 29·50 in. on Thursday, August 15.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 60·1°.

APPOINTMENTS FOR THE WEEK.

August 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

26. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 0 a.m. and 1.30 p.m.

27. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

28. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

29. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

30. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE BALANCE OF NERVOUS FUNCTION.

I HAVE confined myself thus far to an illustration of the balance of one set of nervous centres or organs—the balance between the corpora striata and the cerebellum. There are, however, many other similar illustrations yet to be worked out. For example, there seems to me some point in the spinal cord for balancing that part of the medulla oblongata which governs the act of inspiration. If an animal be destroyed by injury to the medulla, the death invariably occurs from interference with the respiration; the heart will continue to beat, but the animal will cease to breathe. This is the broad fact, but when the phenomena are more closely examined, we find that the breathing has ceased because the function of *in*spiration has ceased—*i.e.*, the muscles of inspiration have been deprived of the force which gave them activity. The chest is left with the expiratory muscles in unopposed command, the lungs are found collapsed and more or less bloodless, and the right side of the heart is engorged with blood which cannot make its way. These facts tell us there is another nervous centre which governs the act of expiration—a point, I think, in the spinal column about the level of the first dorsal vertebra. In a future lecture I shall be able to speak with more precision on this subject. Meanwhile, I would direct the attention of observers generally to the great importance of making every effort to define these centres of balance with the strictest care. In the post-mortem room a great number of facts may be gathered of course; but there are other fields of research wide open. Thus, if any of you are about to spend the vacation in the way of sport with the gun or rifle, you may, I think, contribute largely to science by carefully noting the mode in which an animal that has been shot falls, and by making examination afterwards for the part of the nervous system in which it has been wounded. Some shot birds fall backwards, turning rapid backward summersaults; others vault forwards, and then drop suddenly; others, again, exhibit a series of lateral movements in coming to the earth. In every such case, then, when the character of the descent is well marked, it would be of great moment to examine the part of the brain or nervous system that has received the injury, and, as the anatomy of these parts is well defined, there can be no real difficulty in the path of the inquirer.

Disturbance of Nervous Balance in Disease.

Indications of loss of balance between the centres of nervous force are constantly before us in disease. In fact, in a very strict sense, every active and sudden phenomenon of disease which we recognise is the result of this disturbance. Hence the reason why mental impressions influence so easily morbid changes of function for good or for evil. Cases of drunkenness from alcohol afford in various stages varying phenomena, all of which depend on varying degrees of disturbance in the function of the centres of force. As a rule, alcohol first influences those centres which govern the voluntary muscles; in time, the poison being continued, the centres of thought or sensation become influenced, and sensibility begins to fail; last of all, the centres of involuntary motion come under the spell. Again, during recovery from the intoxication, those centres which were first affected continue affected longest, the centres of thought and reason and sensibility becoming once more active while yet the centres of motion are in abeyance, and fail to obey the volition. Indeed, in the process of intoxication, where all the nervous centres are bathed in poison, so strikingly is the disturbance of balance manifested, that we can, for a time, gauge and measure a man by his acts and words. Those centres of his nervous organism which are most feeble succumbing first, the more active are left uncontrolled, and proclaim their preponderating power. The sentimentalist weeps, the ruffian shows fight, the man of memory grows yarny, the wit outdoes himself, the funny man laughs, the singer sings, the angry man grows furious, and the cunning rat gives you a rat's face that Landseer might study. Each man, in short, works his one big centre until it at last either succumbs with the rest, or the rest sober up to it. *In vino veritas*—Ah, truly! and translated physiologically it means that the strongest nervous centre is going full swing when all its balancing centres are under the table. The wineglass itself is not more transparent than the man who has emptied it too often at one poisoning.

Some forms of insanity partake in like manner of simple disturbance of balance. This is specially the fact in monomania, which may either depend on exalted function of one centre, or depressed function of those centres which should balance the one.

In cases of pressure on the brain or spinal cord we get also signal instances of disturbed balance of nervous centre power. As when we froze the whole of the cerebrum of the pigeon we laid it unconscious, destroying its volitional power, and leaving its involuntary centres unaffected, so in some accidents causing general pressure (pressure is virtually the same in action as cold), the human subject has been laid low with the consciousness and volition lost, but the involuntary force unchanged. In other cases where we have a partial pressure we discern a more distinct irregularity of function, precisely as in the birds when the freezing is localised. I knew a case in which a man tried to hang himself, but was cut down before he was dead. As he was liberated, quite unconsciously, he rushed madly forwards and fell; he lived three days, and after death I found extensive effusion in the ventricles and the most intense congestion of the cerebrum, the cerebellum being scarcely affected. That rush forward was from the action of the cerebellum—action uncontrolled. In one of my Hospital journeyings a man was shown to me who, from disease, had lost portions of the bones of the cranium at the upper part, so that the cerebrum was covered only by skin, and the pulsations of its vessels could be felt. This man could bear slight pressure on the exposed part, but when the pressure was increased he at once became giddy, with an uncontrollable tendency to precipitate himself forwards. I noted this at the time as a simple fact, thinking nothing then of the light that experiment would throw over these classes and forms of disease.

We might linger long on these disturbances of nervous power as they are exhibited at the bedside, but I must confine myself on this occasion to one or two further notes, and these general.

1. I would point out that in diagnosing the seat of injury or disease in cases of disturbed balance, the prominent or presenting symptoms should not be taken as of necessity indicating primary disease of the centre through which the symptoms are demonstrated, but sometimes of a centre, which may be remote—that is to say, a balancing centre. For example, involuntary convulsive movements, apparently spinal, and compatible with the hypothesis of increment of force in the cord, may, in fact, be due to mere decrement of controlling force in the cerebrum, as in convulsion from pressure on the cerebrum, from deficient cerebral organisation, or from cerebral degeneration; or symptoms of deficient volitional power, apparently cerebral, and which are compatible with the hypothesis of decrement of force in the cerebrum, may be due to decrement of force in the spinal cord. Thus in my former lecture I explained that, on suddenly removing force from the cord by extreme cold, symptoms even of stupor were made manifest. In dealing with diseases of the nervous centres and in the careful diagnosis of these diseases, I know of no point of practice that is more important than this relation of balance between one centre and another, and the relative increment of force in one centre by the loss of force in another centre that sustains the balance during periods of healthy action.

2. If we forget this relative balance of power and destruction of balance by failure of one part, we may mistake often active symptoms arising from passivity of one organ and relative activity of another for actual increased activity of an organ that is quite natural. I believe this mistake is frequently made, and that it leads to bad results in practice—leads to the adoption of depressing treatment when the body should be most carefully sustained.

3. In some extreme cases, where for long periods of time the nervous centres have been exposed to the continued action of a destroying agency—the agency of alcohol, for example—groups of centres of power, centres which balance each other, give way altogether, or so nearly together that disturbance of balance of function is seen but for a short interval, or is not seen at all. Cases of general paralysis and dementia, cases which so largely occupy our asylums for the insane, are of this class.

Lastly, on this question of balance, I would point out what seems to me the fact, that the balance between two centres may suddenly be broken in moments of quick vehemency of action of one centre. The madness of rage, in which the cerebral reasoning centres become temporarily paralysed by over-action, leaving the propulsive cerebellum to free and uncontrolled impulse, is a case of this kind in its temporary form and development. But the event may be more than temporary; the brief arrest of function, especially if it has been often repeated, will, in some instances, be attended with physical change of structure and loss of molecular capacity for the reception of force; and then, the balance of centre permanently broken, the phenomena which we call mental cease to be orderly; predominating impulses, or desires, or resolves, not, perchance, before known, became held previously in check, prevail; then the mind is unhinged, as the common saying expressively describes the pure physical truth, and then it is often ignorantly wondered how the sufferer, who once showed none of the tendencies he now shows, could have suppressed such tendencies so long or so artfully.

I believe that the physical meaning of morbid impulse is, in every case, a broken balance of nervous centre; the sudden exhibition of uncontrolled force of an organ previously held in even action by another centre; a centre up to a given moment active, at a given moment dead.

The nervous organism, in short, may die in parts, and one centre or more may be dead to the reception of force, while all the rest of the body, volitional and vegetative, lives, in mental constitution a changed body. In old age, this progressive change naturally envelopes all the volitional centres which truly die, while the vegetative remain. And conversely, sometimes in the heyday of youth we see the mere vegetative centres die only, and thereupon—so dependent is the higher upon the lower life—all the centres of thought and volition share in the catastrophe; sudden and general silence and inertia communicating to the looker-on the phenomena which he summarises in the one word—*death*.

ORIGINAL COMMUNICATIONS.

ON A CASE OF ACUTE TUBERCULOSIS SIMULATING FEVER.

By HENRY M. TUCKWELL, M.D.,
Physician to the Radcliffe Infirmary, Oxford, late Radcliffe Travelling Fellow.

JANUARY 10, 1867.—E. L., aged 19, states that she has for some time past been in constant attendance, day and night, on her mother, who is lately dead of cancerous ulcer of the breast. Beyond exhaustion from nursing, she did not feel ill till three weeks ago, when she became very depressed, began to cough, and to vomit occasionally after meals. She came as an out-patient, twelve days ago, to this Infirmary with the above symptoms, but did not then seem to be particularly ill, nor was there any evidence of fever. After ten days (two days ago) she returned, and then seemed to be very ill, being feverish, low, and complaining of severe pain in the right leg from the hip to the knee, so that she could only walk with difficulty. She also states that she has shivered several times within the last few days. Her father died, some years ago, of an injury to the head; no tubercular history. As it seemed not improbable that she was going to have rheumatic fever, she was advised to come into the Infirmary.

Status Præsens.—Body well nourished; she can lie in any posture, but never remains long quiet, tossing about restlessly; *is peculiarly irritable, evidently averse to being touched or examined in any way; face dusky,* expressive of pain and distress; eyes heavy, but conjunctivæ clear, pupils natural, and no strabismus; she avoids the light, declaring that she sees three or four objects instead of one; quite coherent in all her answers; has a frequent loose cough, and expectorates green, viscid, muco-purulent sputa in small quantity; breathing rather hurried, but regular; pulse 168, moderate volume, regular; skin 102·2° Fahr.; tongue furred on dorsum, but moist; no sordes on lips or teeth; bowels loose, have acted twice since admission last evening; motions powdery and pale (very like those of enteric fever); abdomen full, rather tender on pressure in umbilical region; no spots and no gurgling; dulness of spleen not increased in extent; suffers from frequent vomiting; has not menstruated for two months; complains of severe pain in the right thigh and over the eyes; nothing can, however, be detected abnormal in the thigh, nor is there swelling of any joint; the pain seems to be especially centred in the muscles of the thigh. Urine loaded with lithates, acid, sp. gr. 1025; chlorides abundant; no albumen.

Inspection of Chest.—Movements seem everywhere perfect; a few patches of pityriasis versicolor scattered about the surface; over right clavicle and upper sternum an indistinct mottling.

Percussion.—Resonance fair over both lungs anteriorly and posteriorly.

Auscultation.—Anteriorly, there is crepitation (mixed) from the clavicle to below the mamma on both sides, louder and more abundant on the left than on the right side. Posteriorly, over left scapular region, crepitation; below the scapula abundant crepitation and some friction sound; over right scapular region, sibilus down to the base of the lung, where is a little crepitation; voice sounds everywhere natural; heart sounds normal. Diagnosis not made.

Treatment.— Haust. ammon. acet. c. camph. f. ℥j.; sp. chlorof. ♏ x.; sp. æth. nit. f. ℥ss., 4tâ quâq. horâ. Pulv. ipecac. comp. gr. x., horâ somni. *Diet.*—Beef-tea, milk, lemonade.

11th.—Sleep broken, disturbed by cough, which is harassing; no action of bowels; has vomited several times a little green watery fluid; *face and ears very dusky;* photophobia as yesterday; pain in leg better, but pain now complained of in umbilical region, which is certainly tender on pressure; abdomen full; pulse 116; skin 101·2°, moist in palms; tongue thickly coated, but moist; no sordes. Diagnosis: Acute tuberculosis; miliary tubercles scattered through both lungs, especially the left. Prognosis: Certain death.

12th.—Sleep broken; she is free from pain, but feels "giddy and queer;" quite coherent in her answers; cough very troublesome; no motion; continues to vomit; pulse 92; skin 100·6° (no sweats); tongue very foul, but moist; moans frequently, and continues to toss about. Morphiæ hydrochl. gr. ½; spir. chlorof. ♏ xx.; mist. camph. ℥jss.; ft. hst. horâ somni sumend. Wine, ℥iv.

13th.—Slept rather better; face, ears, and skin on backs of hands, very dusky; complains much of pain in the head and dizziness; *there is slight strabismus and a want of expression in the eyes;* seems a little drowsy, and disinclined to answer questions, but answers clearly and coherently when pressed; *pulse* 76, regular; skin 100·2°; tongue very foul, but moist; no sordes; *on being raised up for auscultation she vomits;* no action of bowels. Physical signs as before. Diagnosis: Tubercles forming in membranes of brain, especially about the optic commissure. Treatment: Enema aquæ tepidæ; pt. hst. morphiæ.

14th.—A very restless night; cough distressing; she moans constantly, but is not delirious, and answers questions coherently; pain in head severe; strabismus marked, and peculiar absence of expression in eyes; bowels have acted once after injection; a few lumps of fæcal matter passed; *breathing irregular, sometimes suppressed for a few seconds, and then deep drawn with a long moan;* pulse 92, regular but feeble; skin 100·2°; tongue as before.

15th.—Very delirious all night; with difficulty roused to answer questions, but will answer one or two coherently, and then relapses into the previous delirium; duskiness of face (particularly forehead, cheeks, ears, lips) remarkable; no sordes on lips, a little on teeth; backs of hands mottled with livid patches; strabismus as before; left pupil dilated; pulse 88, regular; skin 101·2°; *there is some difficulty in feeding her, as she shuts her teeth forcibly, and resists all food.* Wine ℥vj.

16th.—Lies perfectly unconscious; the head drawn forcibly back; the eyes half closed; the eyeballs rolled upwards; the pupils dilated, not contracting when a candle is held to the eyes; breathing more irregular, 48 in minute; pulse 120, *irregular in force,* some of the beats scarcely perceptible; skin 101·8°; tongue as before; no action of bowels; abdomen moderately full and tympanitic; passes urine involuntarily; *it is almost impossible to feed her;* "*taches cérébrales*" (a)

(a) Cerebral spots or markings, a symptom first noticed by Trousseau as, if not pathognomonic, yet strongly indicative of tubercular meningitis. If the finger-nail or the point of a pencil be drawn, in three or four parallel lines, over the skin of the abdomen or thighs of a healthy person or one affected with ordinary diseases, either no result follows, or faint red lines quickly show themselves and quickly disappear. In tubercular meningitis deep red lines follow the irritation, and are remarkable not only for their depth of colour, but also for their persistence. The same symptom may be observed in one or two other diseases, as the exophthalmic cachexia, but it is *par excellence* a symptom of meningitis. It is regarded by Trousseau as due to asthenia of the vaso-motor branches of the sympathetic.

remarkably developed. Percussion: Fair resonance over both lungs anteriorly and posteriorly. Auscultation: Sibilus throughout both lungs, anteriorly and posteriorly; crepitation less abundant.

17th.—Much as yesterday.

18th.—Is evidently dying; feet and hands cold; pulse 160; pupils dilated to their full extent and fixed; breathing shallow and rattling. Died the same afternoon.

19th.—*Autopsy*, performed by Mr. Winkfield, fifteen hours after death, in very cold weather. Body well-nourished; post-mortem discloration of integuments of back; rigor mortis fairly developed; pupils dilated; small patches of pityriasis versicolor scattered about the skin of chest. Head: Nothing remarkable about skull-cap, vessels of pia mater on surface of brain turgid, convolutions very flattened, sulci almost obliterated. After removal of the brain, several miliary tubercles are seen scattered in the dura mater lining the left inferior occipital fossa; these tubercles are evidently beneath the arachnoid, which is continued smoothly over them. The pia mater which covers the floor of the third ventricle, especially about the optic commissure, is thickened, turbid, and milky in appearance; in the fissure of Sylvius on either side is likewise milky and studded with numerous minute miliary tubercles, which are particularly abundant along the course of the blood-vessels, looking as if adherent to the vessels; between the cerebellum and posterior cerebral lobes is similarly opaque and beset with tubercles. The surface of the cerebellum, especially at those parts where the tubercles most abound, is softened. The lateral ventricles, more particularly the posterior horns, are very much distended with serum. On looking at the surface of the optic thalamus and corpus striatum, it is observed that, in a certain light, the lining membrane has a finely granular look, as if very fine white sand had been sprinkled over it. Fornix soft. White substance of brain generally pale. Lungs: Both turgid with blood, but crepitant; a few adhesions at right apex and left base. The pleural surface feels everywhere rough from the thousands of miliary tubercles which beset it. The lobes of the lungs are bound together by recent adhesions, in which innumerable fine miliary tubercles are also deposited. Left lung, on section, yields a red frothy fluid, and is seen to be everywhere closely dotted with miliary tubercles. A little below the apex, right in the middle of the lung, is a vomica of the size of a small walnut, whose walls are thick and fibrous, whose lining membrane is polished, and which contains a very little purulent matter. Not far from it is a tiny vomica, not larger than a small pea, seemingly of more recent formation. Besides these, no other vomica can be found, and nowhere is there any trace of hepatisation. Right lung, on section, closely resembles the left, but contains no vomica and less tubercle: its base being decidedly less diseased than any other part of the lungs. Heart healthy. Spleen small; its surface strewn with miliary tubercles, and its section showing the spleen substance filled with very small similar formations. Liver: A few tubercles on its surface, and a few in its substance. Kidneys: Both, but especially the left, contain a number of tubercles, many of them larger than those seen elsewhere. The pelvis of the left is congested, and its lining membrane dotted with a few tubercles. Mesenteric glands much swollen and of a violet colour; vessels of mesentery much congested. Ileum bears marked evidence of tubercular disease, *a*, in its solitary follicles, many of which are ulcerated, the borders of the ulcers being vascular and ragged; *b*, in the Peyer's patches, many of which are likewise ulcerated; in some the ulcers being scattered three or four in a patch; in others the whole patch being converted into a large but recent ulcer; *c*, in its mucous membrane, in which there are not only small ulcers independent of the follicles, but also distinct miliary tubercles formed here and there, and not yet softened. On looking at the peritoneal surface of the ulcers, it is seen that beneath that part of the peritoneum which covers the ulcer a little group of miliary tubercles are scattered, lying seemingly between the peritoneum and the base of the ulcer, which has perforated the mucous membrane. Other miliary tubercles are dotted sparingly about the peritoneum, quite independent of the ulcers.

Microscopical Examination of the Pia Mater.—The diseased pia mater is carefully torn from the brain and floated out under water. Small pieces are then cut off, spread out in a drop of glycerine on a slide, and examined with different powers—1-inch, ¼-inch, ⅕-inch. Here and there little spaces are seen where the membrane is still healthy; but the greater part of it—all that part, namely, which to the naked eye has a milky appearance—is so thickly set with myriads of small round or ovoid cells and nuclei that nothing but these and the blood-vessels appear. The milky look is, in truth, caused by these innumerable cells—a very "milky way" in the membrane. The cells are smaller than the so-called lymph-cells, contain, most of them, one large nucleus which nearly fills out the cell, and a small shining nucleolus; they are clustered together irregularly, but are more particularly massed round and about the blood-vessels of the pia. In many of them the nucleus, in some the whole cell, is undergoing partition. The individual tubercles, first brought into the field with a low power, and then examined in detail with a higher one, are composed of the same cells, only still more closely and more symmetrically packed, as those which are above described. So exactly similar are the cells, that it seems as if the same cause which was active in the production of the tubercles had given rise to the cell development in the pia mater around and among the tubercles, being, in the case of the tubercles, more localised, and acting with special force in the development of certain centres; in the case of the membrane generally more diffused, but in no respect different. The blood-vessels of the pia have, many of them, their external coat remarkably thickened. To some of them the cells above mentioned cling in such numbers that the vessel looks as if it were completely encased in cells. This fact, coupled with the thickening of the coat and the way in which the tubercles cling to the walls of the vessels, makes it appear as if the connective tissue of the external coat served, in great part, at all events, as the starting-point of this strange cell-formation. Some of the tubercles have their centre darkened by the presence of fatty granules, evidence of commencing retrograde metamorphosis.

Remarks.—On admission into the Infirmary, and at the first examination, this case bore on its face the features of several distinct forms of disease. 1st. Might it not be rheumatic fever? The general symptoms were not unlike those of that disease, and the severe pain in the leg and knee led one at first to consider this as possible. But neither the knee-joint itself, nor any other joint in the body, was affected; there was no sweating, and no cardiac affection. Hence, after a little thought, rheumatism could be fairly excluded. 2nd. Might it not be pneumonia? Though this seemed at first a possibility, it was, on consideration, excluded. For, first, the sputa were not pneumonic; then the physical signs were those of diffused bronchitis and pleurisy, not of pneumonia, and there was no deficiency in the chlorides. 3rd. Might it not be typhus? The dusky and heavy appearance of the face, the indistinct mottling about the chest, with high fever, naturally enough suggested this question. But then, she had been ill three weeks, and she had much more power than a person would have at this stage of typhus. She had not wasted, and the way she tossed about in bed was not like that of a typhus patient. 4th. Might it not be enteric fever? Here was a person with fever and diarrhœa, the stools, *per se*, not to be distinguished from those of enteric fever, the abdomen full and tender on pressure. But the amount of power, the posture, the absence of any spots, the absence of any enlargement of the spleen, the frequent vomiting, the appearance of the tongue, the absence of sordes, all spoke against such a diagnosis. 5th. Might it not be simple, uncomplicated bronchitis? To this, too, a negative answer could be given. The girl seemed too ill for any such opinion of her case. The vomiting, the previous rigors, the great heat of skin, and the friction sound, mixed with the other physical signs, all bore evidence of something more serious than this.

It was thus possible to arrive by exclusion at the diagnosis made. But there were, further, a few positive signs which afforded material aid. The presence of severe bronchitis, with dry pleurisy, the frequent cough, the high fever preceded by rigors, the peculiarly irritable and restless manner of the patient, *the severe pain in the leg and sensitiveness of the body generally*,(b) all pointed directly at acute tuberculosis. The lividity of the face was so prominent a symptom here that it deserves special notice. Trousseau relates a similar case, (c) in which the "face, lips, and hands were remarkably livid," so as to attract particular attention, and in which death followed in seventeen days. The symptom is well explained by the way in which the lungs are spoiled by the tubercles, and thus assisted in completing the diagnosis.

The closeness of resemblance which acute tuberculosis bears to enteric fever, is dwelt upon by all who have written on the subject. Louis, in his immortal work on phthisis, lays great

(b) See an admirable paper by Dr. Wilks, *Guy's Hosp. Rep.*, ser. 3, vol. vi. p. 102. See also Hessert, *Würzb. Med. Zeit.*, 1860, p. 314.

(c) *Clinique Medicale*, vol. i. p. 592.

stress on this, but instances the early and repeated occurrence of rigors, the cough and dyspnœa at the outset of the disease, and the absence of eruption, as the most distinctive symptoms of tuberculosis. Within the last year and a half two cases of tubercular meningitis, with some miliary tubercles in the lungs, have been sent into this Infirmary as cases of fever. Both, of course, died; and in both the post-mortem examination disclosed the real nature of the disease. Dr. Harley (d) bears witness to the resemblance between the two diseases, and shows how, in their early stage, the tubercular ulcers are hardly distinguishable from those of enteric fever. Both, he says, attack the solitary and agminated glands of the ileum; and the appearance of the ulcers is similar. In this case, however, although the ulcers *per se* could not be distinguished from those of fever, yet the presence of tubercles on their peritoneal aspect, as also the deposits of miliary tubercle in the submucous tissue, apart from the follicles, removed all doubt as to the real nature of the disease.

When once the cerebral symptoms succeeding those already discussed declared themselves, all doubts as to the accuracy of the diagnosis vanished. There will be noticed among the symptoms printed in italics, the vomiting when moved, the irregular, sighing breathing, and, lastly—a symptom which I do not remember to have seen mentioned anywhere, but which I have particularly noticed in the last three cases of tubercular meningitis that I have watched—the clenching of the teeth when food is put to the mouth, and the positive refusal to take anything. This is, as far as my experience goes, not observed even in the worst fever cases. The fever patient usually swallows helplessly, or, at any rate, with a little persuasion, whatever is put into the mouth, or, when too far gone to swallow, suffers fluids to regurgitate from the sides of the mouth; but in this meningitis there is a spasmodic and decided resistance, so that the nurse may weary herself in her attempts to give food.

Yet another point worthy of notice is the full and even tympanitic state of the abdomen in this case, which was throughout an embarrassing symptom. Dr. Murchison, in his valuable remarks on the differential diagnosis of tubercular meningitis and enteric fever, points to the flattening of the abdomen in the former, as distinguished from its full and tympanitic condition in the latter. Trousseau used to lay similar stress on this. He used to say —"*le ventre est creusé en carène;*" the belly is keel-shaped in meningitis; *i. e.* prominent along the line of the recti muscles, and flattened or contracted laterally. This, though undoubtedly the rule, is not invariable. The case in question shows that when there are, in conjunction with tubercular meningitis, tubercular ulceration of the bowels and disease of the peritoneum, the abdomen may be tumid and the stools "ochrey yellow," just as in fever. The walls of the intestine are, of course, in exactly the same inflamed condition as in fever, and liable, therefore, to be distended by intestinal gases.

It is useless to speak of treatment in this horrible disease. I have seen every plan adopted, and tried every plan, with the same result—inevitable and speedy death. Leeching, mercury, purgatives, stimulants, all are powerless to avert the surely fatal termination. Yet to recognise, with a fair amount of certainty, the disease in its earlier stages—to distinguish it from fever and the other affections which it so closely imitates—to be able to forewarn when the deadlier symptoms have not as yet manifested themselves—this is quite within the power of the Physician; and it is in the hope of assisting, however little, in the attainment of such clinical efficiency, that I venture to make public this imperfect sketch of a very interesting Medical case.

Lead Poison in Cider.—The fatal case of lead poisoning by cider which has lately been reported at Lower Lyde, near Hereford, is a repetition of what was a very common occurrence fifty years ago. Lead colic received the name of *Devonshire colic* from the frequency with which it attacked the cider-drinking labourers of that county. Of late years lead utensils have been less used in its manufacture, and although the evil has not been abolished it has been mitigated. In the recent instance of poisoning seven or eight men were made ill, and one died. The blue line round the gums and the usual symptoms of lead poisoning were present, and Professor Herapath found, in the cider supplied to the men, one grain of metallic lead in the gallon.

(d) Russell's "System of Medicine," vol. i. p. 626.

THERMOMETRY IN INSANITY.

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Some three years ago Dr. Saunders, the successor to Dr. Bucknill in the superintendence of the Devon County Asylum, drew attention, in his annual report, to the advantage that might be derived from the study of thermometry in the treatment of insanity. His remarks impressed me very strongly at the time, and I have been in the habit ever since, first at the Northampton General Lunatic Asylum and subsequently at the Sussex Lunatic Asylum, of using, and, as carefully as is in my power, recording, the variations in temperature in all the interesting cases of insanity that have passed through my hands; consequently, I have records of several hundred cases, and it is my purpose in this paper to narrate, as briefly as may be, the results towards which my observations have tended. In the first place, however, it will be but right to own that in commencing these observations I was actuated by a desire to support by observation a preconceived theory I had formed that in all cases of acute mania, acute melancholia, and especially the acute mania of general paralysis, I should find a decided elevation in temperature, and my hope and ambition was to be enabled to form a chart of the variations in temperature occurring in acute mania, such as has been observed in the exanthemata, pneumonia, etc. But I must confess to having totally failed in my object. As far as I have been able to judge, and, as I have premised, I have examined many cases, there is no such defined cycle of temperature accompanying any of the forms of insanity, whether acute or chronic. Indeed, the results of my observations have tended in an exactly opposite direction, and show that, unless complicated with any such organic bodily lesion, as tuberculosis, instead of being a rise there is a decided diminution in temperature, and that the lower the type of insanity the more decided is the loss of heat. This axiom may be illustrated by the following table which appeared in the last number of the *Journal of Mental Science*:—

Thus in

	The highest temperature was	The lowest
4 cases of acute mania	98°	96°
4 ,, chronic mania	97°	95·6°
4 ,, melancholia	97·4°	96°
4 ,, dementia	96·4°	94·6°
4 ,, melancholia attonita	96°	95·6°
General paralysis—		
2 cases of first stage	98°	97·2°
3 ,, second stage	98°	96·4°
4 ,, third stage	96·4°	95°
Epileptic mania	98·6°	96°
Phthisical mania	105°	99°

In order to compile this table as accurately as possible, I used a thermometer made by Casella and verified by Dr. Aitken; I placed it in the axilla, and allowed it to remain there for six minutes in each case. The normal temperature of the human body in a state of health, as fixed by the best Continental and English authorities, is 98·4° Fahr., and it will therefore be seen from the above table that in no case of insanity except that of phthisical mania was there any rise above the normal standard—indeed, the reverse was the case; and I make bold to affirm that the presence of mental alienation in any form, if uncomplicated by other organic lesion, is sufficient to cause—and almost invariably does cause—a downward tendency in the temperature of the body.

It will, moreover, be seen that the lower we get in the scale of insanity, and the further removed from the commencement of the disease, the lower the temperature becomes, so that whilst in an acute attack it is but little affected, when that attack becomes chronic and incurable the temperature falls, and when, finally, dementia arrives, it falls still lower.

After all, this is what we ought to expect, for all observers agree now that insanity is a disease of debility, and even in chronic cases slowly but surely tends to shorten human life.

Acute Mania.—In acute mania, the state of excitement, as pointed out by Professor Griesinger, Dr. Sankey, and others, is almost invariably preceded by a period of depression of uncertain length. It is but rarely that this primary period of the disease is brought under the notice of the asylum Physician, but in the few cases which I have been enabled to have under my observation there has been a decided

diminution in temperature of from one to three degrees during this period; but directly the state of exaltation has supervened, the temperature has risen to the normal height, or even a little above it—again to fall, however, as soon as the excitement told on the *physique*.

This fact I have frequently observed in that form of insanity named by the French writers *manie à double forme*—a variety of mental alienation very common in our asylums, and in which we observe—firstly, a period of depression; secondly, a period of exaltation; and thirdly, a period of mental soundness. These three periods repeat themselves for many years, often in rapid succession, and invariably present the same features. At the very commencement of acute sthenic mania there may, as I have remarked, be no appreciable diminution in temperature, and at times there may even be a rise of a degree or so; but this is very rare, and only occurs in strong healthy rustics, and at the commencement of the attack. It rapidly subsides, probably in the first twenty-four hours, and within a very short time, especially if there be refusal of food, the temperature becomes considerably reduced, and remains so, with irregular fluctuations, until complete convalescence, which may not be for weeks, possibly months. When death ensues from exhaustion during acute mania, I have more than once observed the temperature fall very considerably twenty-four hours before death, even to as low as 93°—that is, nearly 6° below the normal standard. I should, therefore, always consider such a marked fall in temperature during an attack of acute mania as a sign of serious import.

Melancholia.—In melancholia there is, from the very outset of the malady, an appreciable, indeed very decided diminution in temperature, and from this I have never found any variation. In *melancholia avec stupeur* (attonita) this is most marked, and for days and days you cannot register more than 94° or 95°, however long you may keep the thermometer *in situ*. This is no doubt due to the sluggish condition into which all the organs of the body are thrown, and to the want of nourishment from refusal of food, and the consequent deficiency of calorifying material in the blood. Sometimes the temperature falls very rapidly; thus, I was taking the temperature night and morning in a case of ordinary melancholia, unmarked, however, by any prominent symptoms, and apparently doing well. One morning the temperature was, as it had been for some days, nearly normal (98·8°); that same evening it had fallen five degrees without any appreciable cause, and the patient seemed much as in the morning; but during the night he was very restless, attempted to strangle himself, and suddenly became possessed of the most distressing delusions. From that time he refused all food, and relapsed into so deplorable a condition that his life was only prolonged for a few days. I have more than once noticed a similar fall in temperature in a melancholic previously to an attempt at suicide.

In *chronic mania* and in *dementia* we find in the former a slight, and in the latter a very decided, fall in temperature, and the more advanced the disease, the more decided this becomes. Again, in idiocy this is very marked; so much so, that I could certainly tell the class to which an idiot should belong simply from registering the temperature of his body. An idiot of the first class would have but a slightly diminished temperature; one of the second class a still more marked departure downwards from the average; whilst an idiot of the lowest class would possess a normal temperature several degrees below the standard of a healthy individual. Thus, there is an idiot now at Hayward's-heath who can neither speak, hear, nor see, and is incapable of performing any of even the most ordinary acts of social life; indeed, he is the most pitiable object I have ever seen. His normal temperature is seldom above 92°, and at times will scarcely reach that degree.

General Paralysis.—It might be expected that if we found an elevation of temperature in any form of insanity, it would be in that accompanying the primary stage of general paralysis, and Ludwig Meyer, who considers the attacks of maniacal excitement in general paralysis are due to exacerbations of chronic meningitis, declares these paroxysms to be generally associated with considerable elevation of temperature. But Krafft-Ebing and others who have studied the subject deny this, and I am decidedly of their opinion. Indeed, in the primary form of this disease, there appears to be scarcely any deviation, either of increase or decrease, from the normal heat of a person in sound health, and it is only when the mind becomes seriously impaired and the surely approaching dementia begins to show itself that the temperature becomes affected, and then the tendency is downwards, and so continues slowly to decrease as the dementia and the paralysis concurrently advance and finally extinguish life. Moreover, I can truly affirm that in no case of decided or even of incipient general paralysis have I ever registered an increase of temperature. Therefore I cannot but consider the theories that have been lately advanced of dermal hyperæsthesia and "great elevation of temperature" in certain cases as in truth only theories, quite unwarranted by stern fact, and only advanced to bolster up an apology for unjustifiable and improper treatment.

Epileptic Insanity.—In epileptic insanity, unless the patient is an idiot, or very far advanced in dementia, or the insanity is complicated by some organic disease, there is but little if any deviation from the normal temperature—neither during their calm intervals nor during the violent paroxysms of excitement under which most epileptic maniacs suffer. I have frequently endeavoured to ascertain whether there is any change in temperature just previously to, or during, or just after an epileptic fit, but with only uncertain success, for the difficulties in the way are so obviously great, that they are almost insurmountable. As far, however, as I have been able to generalise from my few successful observations, I am inclined to think that at the outset of the convulsions, especially if they be of a severely tonic character, there is a decided elevation in temperature of as much as three degrees in some cases, and that this continues until the convulsions cease and sleep comes on, when the temperature falls, possibly some six degrees, and does not recover itself for some hours. These facts I have observed too frequently to doubt them. I have also fancied that once or twice, when I have been fortunate enough to examine an epileptic just previously to a fit, there has been a temporary decrease in temperature; but of this I cannot be certain, as it is so difficult to verify, owing to the impossibility of knowing when a paroxysm is coming on.

In reviewing, however, my labours with the thermometer in insanity, I cannot but own that its utility as an aid in mental diseases is nil, whether as to diagnosis or to treatment. But as an aid to diagnose other diseases complicated with insanity its utility is very great, and for this reason—that most insane persons are utterly incapable of describing their symptoms, or, if they attempt to do so, they simply mislead you by wrong statements; and, moreover, the symptoms of urgent disease are so often completely masked altogether that any positive evidence, such as the thermometer can furnish, is most valuable.

THE SPINAL ORIGIN OF RHEUMATISM.

By HENRY DAY, M.D.,
Physician to the Stafford County Infirmary.

THE investigation of one particular kind of malady has, before now, afforded the means of obtaining a clue to the origin of some other affection whose true cause had been previously wrapped in doubt, or, perhaps, altogether misunderstood.

The hackneyed subject of rheumatism, the obscure pathology of the disorder, the various and varied special modes of treating it, as well as the opprobrium which at times its pertinacious resistance of them all has brought upon the Profession, are such trite subjects, that one may well feel some considerable amount of hesitation—some desire for a large proportion of forbearance from one's readers—when venturing to open the sluice-gates of Medical opinion and controversy upon such well-trodden ground; but not having any intention whatever of claiming for myself the position of a "discoverer," or of assuming, indeed, any other character than that of an observer and recorder of Medical facts, I think I may be permitted to hope that the remarks I am about to offer will be viewed in the only light I am anxious for them to appear in—viz., as mere chronicles of opinion (founded on a fair share of experience) corroborative of the views of those who have had, and who have availed themselves of, a far greater scope for their investigations than I have been at all able to command, and who also possess an originality of thought infinitely beyond any pretensions of my own.

It is quite impossible to reconcile the many different methods that are recommended to be pursued in the treatment of acute rheumatism with anything like an accurate knowledge of the primary cause of the ailment, and, whilst admitting and admiring the ingenuity and plausibility with which the several theories on the subject have been advocated, it is difficult to divest oneself of the feeling that the Profession as well as the

public look upon them all with distrust, not to say dissatisfaction, the reasons for their so doing being too obvious to need either comment or explanation.

Such being indisputably the fact, I shall not attempt to apologise for bringing prominently forward the belief entertained by the late Professor J. K. Mitchell, of Philadelphia, as to the spinal origin of the complaint in question.

In the eighth volume of the *American Journal of Medical Sciences*, p. 55, Professor Mitchell related four remarkably interesting cases in which a rheumatic condition evidently resulted from spinal nerve lesion. His treatment of the disorder, founded on this view of the cause, was singularly successful, and is still acknowledged and practised in America with the most satisfactory results; I am therefore anxious to call attention to it, and to add my humble testimony in its favour.

As bearing directly upon the idea that spinal nerve injury may be the true *origo et fons mali*, whatever may be the subsequent chemical condition of the blood, I have pleasure in directing attention to an admirable little work on "Gunshot Wounds and other Injuries of the Nerves." It is published in America, and is the joint production of Drs. S. Weir Mitchell, George R. Moorehouse, and William W. Keen, Surgeons in the United States Army, in charge of the wards for diseases of the nervous system, Turner's-lane Hospital, Philadelphia.

At p. 83 they commence their observations on the "Alterations in the Nutrition of Joints" occasioned by spinal nerve injury. They say: "Again we call attention to a peculiarity of nerve injuries which we believe to have been overlooked.

"Like the altered nutrition of the skin, the symptom which we are at present considering occurs at any time after the first few days. It consists essentially in a painful swelling of the joints, which may attack any or all of the articulations of a member. It is distinct from the early swelling, due to the inflammation about the wound itself, although it may be masked by it for a time; nor is it merely a part of the general œdema which is a common consequence of wounds. It is more than these—more important, more persistent. Once fully established, it keeps the joints stiff and sore for weeks or months. When the acute stage has departed, the tissues about the articulations become hard, and partial anchylosis results, so that in many cases the only final cause of loss of motion is due to this state of the joints. Of all the agencies which impede movement, it is the most difficult to relieve.

"Were we asked to state in what essential respects these lesions differ from subacute rheumatic disease of the same parts, we certainly should be at some loss to discern a difference."

The authors next notice the opinion of Professor Mitchell, to which I have already alluded, and then proceed:—

"Modern pathologists have traced the causation of rheumatism to a strictly chemical source, but no one can avoid seeing that there may be a cause beyond this, even though the chemical conditions be still considered as essential links in the chain. Thus, after all, the true origin may be spinal; or, at all events, the indisputable fact that there are rheumatisms depending for existence on neural change, may aid us hereafter to discriminate varieties of type among the forms of rheumatic diseases."

Further on in the work, when speaking of the effects produced on the secretions by spinal nerve injury, they refer to the perspiratory secretion as having been, in several cases, but particularly in case 22, "copious and intensely acid," so that "an odour of vinegar could at all times be smelt in the neighbourhood of the man."

Whilst the writers of this book have had an unparalleled sphere for their observations, the industrious, careful, intelligent, and scientific manner in which they have carried out their inquiries, and presented the result to their Professional brethren, is beyond all praise. The grounds, too, on which they have based their several conclusions (especially, I think, the conclusion they arrive at corroborative of the views entertained by Professor Mitchell as to the spinal origin of rheumatism) appear to me to be of such a character as to unavoidably arrest attention, and to claim the respectful and thoughtful consideration of all Medical men.

Before the perusal of their work I had been for some time in the habit of treating nearly all the cases of acute rheumatism that came under my care by the blistering method recommended by Dr. Herbert Davies, and I feel bound to say I had good reason to be pleased with the effect it produced, affording, as it did, almost immediate relief from arthritic pain, and apparently preventing, in the most effectual manner, any cardiac complication. How it accomplished all this good, or, in other words, by what particular *modus operandi* the blisters effected the desired object, I neither did nor do altogether comprehend. That it was simply the result of counter-irritation near the affected joints, I do not believe; that any particular acid—the supposed *materies morbi*—was got rid of by means of the serum of the blisters, I have never been able to detect; and the only marked alteration I ever noticed as being produced in any of the secretions was in the urine, which invariably became neutral, if not slightly alkaline, however acid it might have been previously to the application of the blisters. Is it probable, is it possible, that the benefit derived from this mode of treatment results from the effect produced on the peripheral terminations of the nerves acting by a kind of *vis a tergo* on the spinal centres?

After some correspondence with Dr. S. Weir Mitchell, and having determined to act upon his wish that I should pursue the treatment extolled by Professor Mitchell, I have looked upon acute rheumatism as being of spinal origin, and treated it as such, with a result that enables me so far to pronounce strongly in its favour. I feel, however, that at present the cases in which I have cupped and blistered over the spine—this being the course practised by the Professor—are not sufficiently numerous to warrant my giving a definite and ultimate opinion as to the probable general success of the proceeding, or to draw any fair comparison between it and the blistering plan of Dr. Davies, but I experience no difficulty whatever in expressing my conviction that spinal irritation forms an important, most probably the essential, feature in every acute rheumatic attack, and beyond this; I can safely say that in each case that I have made use of the means suggested as being likely to allay such irritation, the relief obtained has been both obvious and speedy.

It would scarcely be possible, even if it were desirable, to give an account, in such a communication as the present, of every patient treated with the view and by the means I have mentioned, but I will just relate one case, which may be accepted as a fair example of the remainder:—

J. M., a private patient, was seen by me for the first time on May 28 in the present year. He was a butcher by trade, and also had a small farm; his age was 36, and his habits had been for some time very irregular, if not absolutely intemperate. He was a tall, robust-looking man, with a florid complexion. Excepting that he had had a slight attack of rheumatic fever two years previously, his general health had always been excellent—in fact, so good that he boasted of "never having required a doctor." Two days before I saw him he had been to a cattle sale, and had got very wet both inside and out. The following morning he complained of feeling stiff in his shoulders and back, but not so much so as to prevent him following his ordinary occupations. At night he was anything but well—was "cold and shivery," and his left shoulder swollen and so painful that he could not raise his arm. He passed a very uncomfortable night, and in the morning observed that both his knees were enlarged, stiff, and not to be moved without occasioning much suffering. The left shoulder was much increased in size, and the pain between his shoulders and in his back was so great that the attempt to turn, or indeed to move, in bed gave him the utmost agony. Such, too, was his condition when I paid my first visit. The temperature in his axilla was 101·6°; his pulse beat 98 in the minute, and was full and soft; respiration 23 in the minute; the tongue was white and moist; his bowels were said not to have been opened for three days; the urine was scanty, high-coloured, and had a specific gravity of 29°; chemical reaction intensely acid; it afforded no sign of the presence of albumen. He perspired moderately, not profusely, and the odour was of the usual acid character; he had great thirst, and complete anorexia.

As he was lying on his back, I wished to have him placed on his side, that I might have the opportunity of examining his spine. After many attempts and much groaning, this was accomplished. He could scarcely tolerate the least pressure between the shoulders, and anything like sharp percussion at this point caused really acute suffering. He bore pressure much better at the middle part of the dorsal region, whilst over the lumbar vertebræ there was again great sensitiveness. The muscles of the neck were very stiff, and the attempt to rotate the head most painful.

I ordered him to have a cathartic dose of calomel and compound extract of colocynth, to be cupped over the loins and between the shoulders to the extent of ten ounces, and to have

an unlimited quantity of lemon-juice and water, lemonade minus the sugar, to drink. His diet, I requested, might consist of milk and farinaceous food. The only other direction I gave was that the sheets might be removed so that he should lie between the blankets.

On my visit the following day I found him to be in every way better. He had passed a tolerably comfortable night, having slept for several consecutive hours. The shoulder and knees were infinitely less painful, although the swelling appeared but little diminished. He was able to move his head with much greater freedom, and could manage to turn in bed with but little effort and with scarcely any pain. Upon examining the spine, neither pressure nor percussion occasioned him one-tenth part the suffering he experienced the day before. There was, nevertheless, a good deal of superficial tenderness, more especially over the places where the cupping incisions were made, and the application of the glasses at these spots during the operation had distressed him very much.

His bowels had acted very freely twice; his tongue was cleaner; pulse 88, soft and full; temperature 99°; respiration 18 in the minute; heart sounds perfectly free from any murmur. The urine was still high-coloured, but somewhat more in quantity than it had been for the previous two or three days: it was still very acid, but without sediment. His thirst was greatly lessened.

The next day his improvement was still more pronounced. He had slept almost the whole night. The shoulder and knees were considerably less swollen, and almost free from pain, though rather stiff. His right wrist, however, was now enlarged and tender, the motion of the joint being but little interfered with. He could move his head in any direction without inconvenience, and the spinal tenderness had almost altogether disappeared, excepting at one spot just over the first of the lumbar vertebræ. Here he flinched slightly under pressure.

His tongue was still cleaning; pulse 84, and soft; temperature 98·8°; respiration natural. The urine remained high-coloured, but was increased in quantity and afforded a small deposit of uric acid; the specific gravity was 27°. There had been no further action on the bowels. He was complaining of feeling hungry.

I prescribed for him two-thirds of a grain of podophyllin every alternate night, and he was dry-cupped over the tender portion of the spine. His diet was improved by the addition of a pint of beef-tea.

I did not see him either on the 31st or on June 1, but heard that he was going on favourably.

I visited him on June 2, and found him progressing in the most satisfactory manner; the swelling of the shoulder, knees, and wrist had completely gone; no actual pain was felt by the patient when moving any of these joints, but, he said, there was a very decided stiffness in them all, which impeded their free motion. No trace of tenderness remained about any portion of the spine; the bowels had been tolerably well acted on; the tongue was clean, and his pulse natural.

He was sitting up, dressed in his usual clothes, and expressed himself as feeling able to go about his ordinary work, had it not been for the stiffness and a sensation of weakness generally.

From this date he kept steadily and daily gaining ground. By the sixteenth day from the date of his being first taken ill, he was able, and began, to follow his customary pursuits.

I have related this case in preference to any of the other five that I have treated upon the plan proposed by Professor Mitchell, for the following reasons:—

1. It is the only case I have treated with cupping without blistering.

2. No drug of any kind was administered beyond an ordinary purgative.

3. The patient recovered more perfectly within a somewhat shorter time than did any of the others, although the attack was as severe, the symptoms as acute, as in any of the cases.

Although I have thought it right to detail the particulars of this case for the purpose of showing the effect produced on a patient suffering from acute rheumatism, by means directed exclusively to the allaying of spinal irritation, my principal object in this communication is to invite the attention of the Profession not only to the idea entertained by the American Medical Professor, but likewise to circumstances, some of them being of very recent date, which strike me as going far towards substantiating, if, indeed, they do not render absolute and positive, the accuracy of his opinion as to the spinal origin of the disorder.

The prevalence, at this time, of a disease in Ireland for which there appears to be considerable difficulty in fixing upon a suitable and satisfactory name (but which, I think, may be properly described and called "cerebro-spinal meningitis," from the fact that in each fatal case, having had tetanic symptoms and in which there has been a post-mortem examination, a morbid condition of the membranous covering of the brain or cord, or of the brain and cord, has been invariably disclosed), has attracted the greatest possible attention, and become the topic most generally discussed.

When such an affection has been undergoing the investigation of many observers, it has almost unavoidably happened that a desire has arisen, and an effort has been made, to compare it and its symptoms with other maladies prevalent either at home or abroad in past years possessing the same, or, at any rate, somewhat similar symptoms and general characteristics.

Without stopping to inquire what may be the individual and distinctive differences, if any, between the present outbreak or epidemic (?) and the diseases it is supposed to resemble most, it will be sufficient for our purpose to direct attention to one single symptom which, if not always present in all the various forms of the disease, will be found to have been rarely, if ever, absent in such cases as have displayed in a prominent manner the presence of spinal irritation. I mean a rheumatic state of some one, or more, of the articulations of the extremities.

Whether we look for information to the account given by Professor Forget of the epidemic of cerebro-spinal meningitis which occurred at the Medical Clinique of the University of Strasburg in 1842—to the description afforded by M. Rollet of an epidemic of cerebro-rachidian meningitis which decimated the garrisons of Versailles, Lyons, and Bayonne in 1843—to the American account of the same disease, by Gerhard and Lamb, in the *American Journal of Medical Sciences* for July 1863 and January 1864—to the descriptions given by Mannkopff, Rinecker, Wunderlich, Pfeiffer, Frentznel, Niemeyer, and Draper—to the more recent accounts by Mapother, Jeffrey, Marston, Lyons, and Gordon—or to the most recent of all by Dr. Bäumler (*Medical Times and Gazette*, July 20, 1867)—in each and every instance, a pointed reference is made to an arthritic rheumatic condition of the joints as being one of the usual symptoms present, and a careful perusal of the writings of any of the above-mentioned authorities upon the subject will serve to show that when this rheumatic symptom has been absent, it has been nearly always, if not always, absent in such cases only as have displayed evidence of the inflammatory affection being confined to the membranes of the brain, those of the spine being apparently but little, if at all, affected.

Nor are the "spots" on the cutaneous surface which have been so frequently found present in certain types of epidemic cerebro-spinal meningitis, and which I have myself seen in three sporadic cases of the disorder, a very unusual occurrence in acute rheumatism. I have noticed them in several cases that have been under my treatment, and I perceive that my friend Dr. A. P. Stewart stated, at the meeting of the Epidemiological Society on the 1st of this month (July), that he also had seen a dark purpuric eruption in many cases of rheumatic fever during the last two years.

Still further, the frequent, the very general association or connexion of rheumatism and chorea is, I think I may say, a universally admitted fact, whilst the almost constant dependence of chorea on some amount of spinal irritation is very nearly as generally acknowledged.(a)

It does not appear to me that the idea of spinal irritation being the "primum mobile" in a rheumatic attack necessarily interferes with Dr. Prout's theory as to the presence of lactic acid in the blood of rheumatic patients—indeed, spinal irritation may, to some extent, serve to explain, in part, the cause of its presence.

Bearing in mind the relationship of position which exists, and in some parts the actual and intimate connexion which occurs between the spinal nerves and the great nerve of organic life—that nerve which, above all others, presides over the organs of digestion and nutrition, and, so to speak, guides and regulates their functions, I say then, bearing in mind these facts, it would seem to be not unlikely—nay, it would appear to be in the highest degree probable, that any such pathological condition of the spinal cord, or of the membranes

(a) Dr. Stiebel states in the German periodical, *Wochenschrift für die gesammte Heilkunde*, No. 1, 1837, that out of one hundred cases of chorea he had had the opportunity of examining, he could trace the origin of the complaint wholly and solely to spinal irritation in every one of them.

covering it, as I have been referring to, might so influence these organs and their functions as positively to determine the generation of that chemical state—the formation of that particular acid heretofore looked upon as constituting the basis of all acute and subacute rheumatic disorders.

If such really be the effect produced on nutrition by means of spinal irritation—and I confess that to me there seem good and sufficient grounds for entertaining an opinion in favour of such a theory—then may the therapeutics of the disorder assume a more uniform aspect, and the pathology of rheumatism being no longer doubtful, our whole attention may be given to the removal of the one local lesion upon which the whole phenomena of the malady depend.

But whether this view as to the way in which the chemical change in the blood of rheumatic patients is produced be correct or not, there still remain the circumstances detailed in the quotation I have made from the work of Drs. Mitchell, Moorehouse, and Keen, and also the appearance of rheumatic symptoms witnessed in almost every case of cerebro-spinal meningitis—the two combined, or either separately, being sufficient to excite both attention and reflection, and, to use the words of the above-mentioned gentlemen, "to direct Medical thought anew in a direction which seems favourable to its true and rational progress."

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASE OF CHOLERAIC DIARRHŒA—TREATMENT BY CASTOR-OIL—RECOVERY.

(Under the care of Dr. GEORGE JOHNSON.)
(Reported by Mr. R. SHINGLETON SMITH, House-Physician.)

THE chief point of interest in this case, Dr. Johnson remarked, was the following:—The patient when admitted, having had frequent vomiting and purging, was cold and pulseless. For several hours after her admission there continued to be copious discharges of liquid by vomiting and purging, yet, while this drain of fluid was going on, the pulse returned and the temperature rose—in other words, reaction occurred before she could have retained any nourishment and before any stimulant was given. The urine which was first passed after reaction was albuminous. This is one amongst many pieces of evidence that in this class of cases there is a morbid poison in the blood. The patient was a feeble old woman, older than the number of her years would indicate, and, considering all the circumstances, her recovery was rapid and satisfactory.

M. H., aged 60, a charwoman, living at 6, Nag's-head-court, Drury-lane, on July 19, at 11 p.m., was taken ill suddenly with diarrhœa and vomiting. Two hours after cramps came on, and she got very cold.

On July 20, at 4 a.m., she was brought to King's College Hospital, and admitted under Dr. Johnson. She had then been purged about a dozen times, the evacuations being very copious and watery, but dark-coloured. On admission she was very cold; face was shrunken, tongue felt cold, and breath was rather chilly; lips bluish, voice weak. Temperature in axilla was 94⅗°; no pulse could be felt at wrist; abdomen was rather distended; intestines seemingly full of fluid. Ol. ricini ʒss. was given in emulsion, with tragacanth and cinnamon water, but was vomited soon after. At 4.30 the dose was repeated, and was soon after vomited. At 4.45 temperature was 96⅗°, but pulse still imperceptible at wrist. At 5.10 temperature was the same as before, but pulse was then just perceptible in radial artery. The vomiting went on very frequently, but she was not purged till two hours after admission, when she had a copious fœtid brownish evacuation. She cried out frequently with cramp in the calves of both legs and in abdomen. At 11.30 a.m. temperature had risen to 99½°, and pulse could be readily counted at wrists—92 times per minute. She was still vomiting frequently; was purged very often; both the vomited matter and the motions contained bile. Another dose of castor-oil emulsion was given, and was not vomited. She had been wrapped up in hot flannels, with hot-water bottles, and was given milk and cold water. At 5.30 p.m. still very sick; purged five times since 11.30 a.m.; cramps occasionally; pulse 88, temperature 99½°. Was given hydrocyanic acid, with haust. effervescens, ice, and lime-water with the milk; half an ounce of brandy was also given every two hours, as she seemed to be getting exhausted from the vomiting.

21st.—12 noon: Not been purged since 12 last night, and cramps have ceased, but she is still very sick. Pulse 96; temperature 99°. Ordered liq. strychniæ mv., acid. hydrochlor. dil. mx., aquæ ʒj., 4tâ quâque horâ. 10 p.m.: Vomited the first dose of the mixture, but has not been sick since 2 o'clock. Has kept down the milk and brandy. Has not passed any water since admission; was dry-cupped over the loins. Pulse 76; temperature 98⅖°.

22nd.—12 noon: No return of the vomiting or cramps; bowels have not acted for twelve hours. Passed a good quantity of urine this morning, containing about one-tenth albumen, some granular casts, and some bile, giving a play of colours with nitric acid.

23rd.—No return of the purging; no sickness; urine abundant, with some granular casts, but no albumen, and no trace of biliary matter.

24th.—Feels weak, but is otherwise well. Takes food well; no sickness, no pain; urine with very little deposit now. Has omitted the mixture last ordered, and takes some citrate of iron.

30th.—Discharged quite well.

No cause of a contagious character or otherwise could be assigned for the attack of diarrhœa; no other cases were known to have occurred in the house. The patient had two days before eaten a little pickled salmon, but this did not seem to be in any way associated with the attack.

LONDON OPHTHALMIC HOSPITAL.

Graefe's Method of Extraction of Cataract—Liebreich's Operation for Strabismus—Neglected Glaucoma; Iridectomy—Iridectomy in Recurrent Iritis—Iridectomy in Congenital Cataract.

FOR some months past many of the cases of cataract that have come to the Royal London Ophthalmic Hospital have been treated by Professor v. Graefe's method of extraction, of which we will give an outline for the benefit of those of our readers who have not seen this operation. Professor v. Graefe's method may be looked upon as a compromise between the old flap extraction and the more modern traction operation. The section, as in the latter, is a linear one, and is made with a narrow-bladed knife devised for the purpose. The puncture and counter-puncture are made just external to the cornea; and when the latter is effected the blade of the knife is turned round so that the edge is directed forwards and able to cut its way out through the cornea directly instead of making a flap; a piece of the iris is next removed, and the capsule is opened with a cystotome. The next step is the removal of the lens, and this is done by means of pressure, as in the old operation; but in addition to pressure below the cornea pressure is made above also by gliding a curette along the sclerotic above the section, so as to press the upper part of the opening back and thus prevent the lens from slipping behind it.

This method may no doubt claim the chief advantages of the traction operation, such as the rapid recovery and freedom from prolapse of iris; and, in addition to these, the great one of not requiring the introduction of any traction instrument, which obviates the danger of bruising the iris. On the other hand, if the lens is bulky and the section not large enough to allow it to escape readily, there is a risk that more or less vitreous may escape.

A translation of a paper by Professor v. Graefe appeared last year in the *Ophthalmic Review*, in which he fully describes every step of the proceeding, and in the December number of our Hospital Reports is given a condensed report of a supplementary paper by Von Graefe, from which it appears that in 300 cases he has obtained a complete result in 90 per cent.; and the conclusion he arrives at is that in eyes favourable for flap extraction the prospect is equally good by the new method, and that in eyes unfavourable for flap extraction the prospect is considerably greater.

The success at the Moorfields Hospital has been very satisfactory, but the number of cases is not yet so great as that from which Von Graefe has drawn his conclusions.

Another modified operation that has been tried at this Hospital recently is Dr. Liebreich's one for strabismus, and from the experience of the few cases in which the operation

has been performed it seems that a somewhat greater effect is obtained than from the ordinary operation.

It appears that Dr. Liebreich was led to propose this plan after a careful study of the anatomy of the structures concerned. These researches led him to believe that the anterior part of the ocular capsule was so intimately connected on one side with the muscles, and on the other with the conjunctiva, that ordinary subconjunctival tenotomy could only correct a slight amount of strabismus, and therefore the operation had to be repeated in more severe cases. On the other hand, in the old operation for internal strabismus, which was not done subconjunctivally, a very great effect was produced, as the capsule was freely incised, but great deformity often resulted in consequence of the extreme retraction of the muscle, which became attached so far back on the globe that it had little power afterwards to invert the eye; in addition to this the caruncle was drawn back, so that altogether the result was not unfrequently more unsightly than the original squint. Dr. Liebreich's method of operating on a case of internal strabismus may be briefly stated to be as follows:—He separates with his scissors the conjunctiva from the ocular capsule over the muscle as far back as the plica semilunaris; the capsule and tendon are then divided, the incision in the capsule being extended upwards and downwards according to the amount of displacement that is required; lastly, the opening in the conjunctiva is closed by fine silk sutures. By pursuing this plan Dr. Liebreich says that he is able to gain such a great range of effect as in any case not to require more than two operations—that is, one on each eye. This statement may be correct as regards a moderate amount of strabismus, but in extreme cases more than the two operations have been necessary. From the above account it will be seen that this method is more complicated than the ordinary one, and requires more time for its performance; it is also liable to be followed by a greater amount of ecchymosis, and therefore disfigures a patient more for a time.

It is not often now, it is to be hoped, that the opportunity occurs at an Ophthalmic Hospital for watching the course of a case of glaucoma towards blindness, and the following history is interesting as showing the natural progress of the disease and the power of iridectomy to arrest it.

J. H., aged 56, came as a patient November 2, 1866. He was a carpenter by trade, and had lived regularly and enjoyed good health. For twenty-two years he had used convex glasses for reading. A twelvemonth ago he first noticed a rainbow round a candle, and had seen it occasionally ever since, but only with the left eye. At times he had suffered from pain in the left temple, at a spot about the size of a sixpence. He always found relief by bathing his brow with cold water, but noticed that his sight was misty for some hours after the attack. For a fortnight previous to his application to the Hospital these attacks had come on more frequently—about four times a week. At the date of his admission the following was his condition:—The right eye was presbyopic, but otherwise normal. Without the aid of glasses he could only read Jaeger 12. With the left eye he read Jaeger 14, but he said that three nights before he could not see his hand. The tension of this eye was increased to T_1. The pupil was slightly dilated and fixed, and the anterior chamber was very shallow. The superficial veins of the conjunctiva were slightly injected. The field of vision was complete. On examination with the ophthalmoscope the arteries were seen to be small, while the veins were large and tortuous, and there was spontaneous pulsation in the lower one. The optic disc was slightly cupped. The patient was strongly urged to allow an iridectomy to be done on this eye. The certainty of his losing the sight if he did not submit was explained to him, but he resolutely refused to consent until he had tried whether a few weeks' rest and country air would not do him as much good. Nothing more was seen of him till the latter part of February, when he again came to the Hospital. He stated that the attacks of pain had increased in frequency and severity since he left London. They came on suddenly, and would last from four to ten hours. Now he was almost blind with the left eye, so that he could only make out objects in front and on the inner side. The surface of the globe was much injected, the tension increased to T_3. The details of the fundus could not be seen with the ophthalmoscope, as the media were so cloudy. He was quite willing to submit now to any operation that would give him relief from the constant attacks of pain, and Mr. Bowman accordingly did an iridectomy outwards. After this the eye became quiet; the tension was reduced, and there was no return of the attacks of pain. The vision, as was expected, remained much the same, though there can be little doubt that if the operation had been performed three months earlier, when he was first seen, he would have recovered nearly, if not quite, all of his sight. As glaucoma so frequently affects the second eye at some future time, this man has been told not to delay coming to the Hospital if any such symptoms appear in his right eye, and from the experience he has dearly bought it is not likely that he will neglect the advice.

The next case which we will relate exemplifies the value of iridectomy in recurrent iritis—a disease which not only leaves the eye worse after each attack, but is a constant annoyance to the patient by interfering with his ordinary occupations. As the operation is very seldom followed by any unpleasant symptoms, there is the more reason in urging it on a patient who is suffering from this form of disease. In this particular case a very unusual amount of irritation followed in one eye, while in the other recovery took place in the usual manner.

J. B., aged 18, had been in service in the country, from whence she was sent up to the Hospital. Her account was, that, ten months previously, she suffered from inflammation of the left eye, and some time after the right eye was affected in a similar way. Since then she has had six or seven attacks, each of which only lasted for a few days. Her general health had been good, and she had the appearance of a healthy countrygirl.

At the time of her application (November 9, 1866) the eyes were quiet. With the right she could read Jaeger 1, and with the left Jaeger 2. Both pupils were so bound down by synechiæ that atropine had hardly any effect, in consequence of which the fundus could not be seen with the ophthalmoscope. As the constant attacks prevented the girl from continuing her employment, Mr. Bowman determined to remove a piece of each iris at the upper part. This was accordingly done, and the case proceeded well until the third day, when the lids of the right eye became red, and swollen, and painful. On examination, there was found to be considerable chemosis of the conjunctiva, the anterior chamber was full of blood, and there was no perception of light. The left eye was going on quite well. In a few days the untoward symptoms in the right eye abated, the blood was gradually absorbed from the anterior chamber, and the sight returned, so that at the end of three weeks she could see as well as on admission, and in a few days returned home. Between five and six months after the operation she came to show herself at the Hospital, and could then read Jaeger 1 with both eyes, and stated that she had had no return of the attacks since the operation.

We will conclude this article by giving an illustration of the advantages of iridectomy in another class of cases—those of congenital cataract, where there is a transparent margin of lens through which rays of light will pass to the retina if an artificial pupil is made. The operation is only undertaken in cases where the opacity is very limited, and does not appear to be increasing. The effect that will thus be obtained may be calculated by dilating the pupil with atropine, and observing what improvement there is in the vision.

In the middle of December last, H. R., aged 16, was brought to the Hospital from the country with congenital cataract in both eyes.

To enable him to see, he had been using atropine drops for the last three years, and with his pupils thus dilated he could read No. 4 of Jaeger's best types with his right eye and No. 6 with his left. By means of oblique illumination, it was seen that there was a dense nuclear opacity of each lens surrounded by a less dense circle of opacity; outside this again the lens was clear. As he could see so well through this when the pupil was dilated, Mr. Bowman determined to give him the benefit of an iridectomy. This was done in each eye inwards, the pupillary margin only being removed. In the course of a week he was well enough to return home. Six weeks later he came again to the Hospital. As he had got a little conjunctivitis from exposure to the cold winds in the country, his sight was then found to be rather better than before the operation, as with the right eye he could see Jaeger 2 and with the left Jaeger 6, and when he used both he could read Jaeger 1. This result must be looked on as more satisfactory than the successful removal of the lens, as he is able to follow his occupation without the inconvenience of wearing spectacles.

We are requested to correct an error in our recent report on amputations. It appears that at the London Hospital, instead of twenty-nine amputations and twenty-two deaths, as stated, it should have been *thirty* amputations and *twenty-one* deaths.

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Medical Times and Gazette.

SATURDAY, AUGUST 31, 1867.

THE ABYSSINIAN CAMPAIGN.

Preparations for the approaching expedition into Abyssinia for the liberation of our countrymen are now being carried out with vigour. All munitions of war are being prepared and accumulated at Woolwich. Three Hospital ships are to be immediately equipped at Deptford to proceed round the Cape into the Red Sea, to take up their stations at such points along the coast as may hereafter be decided upon as the most suitable for the base line of the operations. The Medical superintendence of their equipment devolves, we understand, upon Dr. Massy, Deputy-Inspector-General of Hospitals, and head of the sanitary branch of the Army Medical Department.

The force is likely to consist of about 12,000 men, chiefly of Punjaubee infantry and irregular cavalry from India. The European portion of the force will be formed of regiments about to be relieved from India during the ensuing cold season. The first battalion of the 2nd Regiment from Bombay, the third battalion of the 60th Rifles from Madras, and the 27th Regiment from Calcutta, will probably be selected. There will also be two batteries of the Royal Artillery with mountain guns, so that, on the whole, the force will be of considerable magnitude, and the expedition will be exactly of the nature to test thoroughly the administrative capacities of all concerned. To be done well, the work must be done quickly. Delays in such a country and against such a foe would be almost tantamount to failure. There is no branch of the army which can, by its intrinsic thoroughness, contribute more to the efficiency of the whole than a well-organised Medical Department, and on none do more important duties devolve.

Much will depend in the approaching campaign upon the foresight and care with which the Medical arrangements are made, for the scene of operations is at present but little known. It is expected that the affair will be short; but we should be prepared for the possibility of its being prolonged beyond present expectations, and, should such be the case, our troops will probably encounter in the climate a more formidable foe than any which King Theodorus is likely to lead or send against them. For such a contingency we ought to be fully prepared in everything which Medical and sanitary knowledge may suggest, notwithstanding the expense which may be incurred; and we trust that no false economy may be permitted to limit or curtail such arrangements as the Director-General of the Army Medical Department may recommend. On him rests great responsibility, and he deserves to be supported by the public and by the Profession.

An Ophthalmic Epidemic has seized the soldiers of the 3rd Belgian Lancers, garrisoned at Mons. Between sixty and seventy soldiers are under treatment.

FEMALE NURSES IN MILITARY HOSPITALS.

On this subject the Government of India have come to the conclusion that it is not expedient to entertain any further the idea of organising a body of female nurses for the British military Hospitals in India. The uncertainty as to whether the system, if introduced, would be advantageous or welcome to the soldier is so great, that there is no warrant for imposing on its account an additional burden on the finances of the country. This decision gives us an opportunity of discussing the question as to the propriety of employing female nurses in military Hospitals. It may surprise our readers to learn that several shrewd and able men have held that, so far from the desirability and utility of these nurse establishments for military Hospitals being settled, the question has never yet been considered in a calm and impartial spirit. Nor is the reason for this difficult to find. Miss Nightingale, under whose auspices the system of nurse training in both civil and military Hospitals has reached its present stage of development, rendered a signal service to this country at a time when the discreditable and disastrous state of our public services had become a national scandal. The administrative talent and the courage displayed by her on that occasion attracted the admiration and gratitude of the nation, and we may be sure that it did not tend to diminish the extent of those feelings that such services had been performed by a woman. Public sentiment was enlisted in her favour, and has never failed since to lend a considerable support to her views. But it is in no ungenerous spirit that we declare that the merit of her claims, and the praises so justly accorded to her, have been the cause—by imputation, at least—of some injustice to those whose merits were cast into the shade.

Miss Nightingale had patriotism, administrative capacity, courage, and, above all, *power*. The weight of public opinion was in her favour. It is absurd to suppose that no individuals could be found in our public services possessing the three first of these qualities; but they were all undeniably deficient in the last, the possession of which made Miss Nightingale's mission to the East a famous success. The Medical officer had responsibility—he was overwhelmed with responsibility—but he had no power. Now, if the two go not hand in hand, it is as vain to hope for success as it is unjust to punish or defame for failure; many a Medical officer at Scutari knew what to do, and how to do it, but he was tied and bound down by an inextricable network of red tape, which he was alike powerless to disentangle or to cut. Miss Nightingale came, free, with the will and with the power, she disentangled or cut as was necessary at the time, and by so doing earned for herself personally the gratitude of the nation, and for every project of hers an almost unvarying and respectfully silent assent, so that it is with some hesitation that we now venture to give expression on this subject to opinions at variance with hers.

We have always held that in military Hospitals, in ordinary times, the female nursing of male patients is not desirable, particularly in regimental Hospitals, which differ from large civil Hospitals in the class of inmates, and in the diseases under treatment as much as any two things, apparently of the same species, well can differ.

In the civil Hospital is treated the artisan or labourer stricken down by grievous illness or by disabling accident, and to such the ministration of the skilled female nurse is invaluable. To see the system in full operation, and to judge of its many advantages for the class of patients who come under its operation, the Hospitals of this metropolis afford an ample field.

In a military regimental Hospital where, in time of peace, men otherwise in robust health, are detained for treatment for every trifling injury which may interfere with their appearance on parade, or for such slight affections as would never prevent

the working man from performing his daily task, we maintain female nursing to be both unnecessary and unsuitable.

For that class of disease which takes its origin in a man's indulgence in his sexual appetites, the moral consideration against female nursing ought, at least to our minds, to offer a paramount objection. In the large general military Hospitals in this country in which are treated invalids from foreign stations, the system of female nursing is yet on its trial. Although in those Hospitals there are at all times many patients labouring under serious forms of disease, and in time of war many suffering from wounds—and for such only are female nurses desirable, particularly for the latter, in whose cases we can well understand that the services of some of the nursing sisterhoods would be an inestimable boon, as they were found to be during the late Prussian campaign and in our own Crimean experiences—there are, at the same time, many men in comparative health, and, as we are informed, the traditions of these establishments furnish many a ludicrous instance and some painful proofs of the truth of our remarks.

On this subject, before surrounding the really sick soldier with female attendants, it would be only fair to ascertain his own wishes on the point.

The feeling of comradeship is strong in the army, and we have frequently heard it remarked by military Surgeons how gently and carefully the sick or dying soldier is tended by the comrade whom he has chosen for the purpose; and we have also heard of instances in which, in the largest military general Hospital in this kingdom, such services have been solicited in preference to those of the female nurses or trained Hospital orderlies. Such facts should be allowed to have full weight. There are also other points bearing upon the discipline of female nurses which deserve full consideration. It is claimed by some of the advocates of the system that all such matters should rest entirely in the hands of a member of their own sex. To this the objections are so many and obvious, that we need hardly particularise them; but to one we must allude, and that is the false relation which, under such a system, military Medical officers occupy towards the nurses of patients under their charge. The present able head of the Medical department of our army in India has plainly expressed his opinion that, in case of the adoption of a system of female nursing in India, the nurses should be directly under the control of the Medical officers. On this point we can hardly express our feelings better than has been done in the following extract from a review in the *Dublin Quarterly Journal of Medical Science* for November, 1866, of a work on Military Hygiene by Dr. C. A. Gordon, C.B., Deputy Inspector-General of Hospitals:—

"On one subject—and we may say only one—connected with military Hospitals is our author silent, and that is on *female nurses*. Are we right in attributing this to a polite reticence on the part of one who does not hesitate to speak out boldly on other subjects? How far may this omission be accounted for by the extremely anomalous system by which the department of female nurses in military Hospitals is now administered? A system presided over by a lady 'Superintendent General of Nurses,' who, though theoretically subordinate to the Medical officers, is practically in a superior position, from the fact of having the privilege, as 'head of a department,' of communicating direct with the Secretary of State for War—a privilege which, we need hardly say, is possessed neither by principal Medical officers, commandants, nor purveyors of general military Hospitals."

How far such considerations may have influenced the Government of India in their recent decision we cannot, of course, say; but calculating the cost on the table given by Colonel Broome, the Controller-General of Military Expenditure, the charge to the State for the maintenance of the estimated number of 280 nurses, with three lady superintendents, for the three Presidencies, exclusive of the expenses of outfit and passages of nurses going out from England, and the maintenance of a home depôt, would be about £30,000 per annum—a large sum to pay for a doubtful benefit.

SPORT AND SCIENCE.

During the concluding lecture of his first course on Experimental and Practical Medicine, Dr. Richardson observed that many an interesting fact might be added to our store of knowledge if sportsmen would note the movements of shotted game in relation to the part wounded.

There seems to be no certain knowledge on this point, although we find that gamekeepers, poachers, and those who keep pigeons and other birds for matches, have all some theory of their own as to the falling of wounded game. Indeed, the last number of the *London Review* contains a short editorial, in which the writer undertakes to define the mode of fall by the character of the animal. This, of course, has no basis in fixed science, but we doubt not it contains some facts which would serve as a guide to the observer desirous of obtaining more accurate information on a question in physiology so deeply interesting as the balance of nervous action.

Many of our Profession are keen sportsmen, and we should be glad to record any facts falling under their notice during the shooting season. The brain of a bird is simple and easily dissected; a sharp knife and a strong pair of sharp-pointed scissors are all that would be required. The examination, properly, should be made on the field; but it may be made on returning home, provided that a label be tied round the bird's neck immediately after it is picked up, with a description of how it fell, and a record of the site of the wound when ascertained.

Before Dr. Richardson applied his invention of freezing by ether spray to the study of practical physiology, Nature had to be questioned rudely by clumsy, unsatisfactory, and painful experiments, and it cannot be wondered at that her replies could no more be depended on than those coming from a rack-tortured human wretch. Now, however, a cerebellum may be painlessly frozen and its function suspended without mutilation, the organ, when the experiment is over, gradually recovering itself, and again enjoying its original vigour. During the suspension of function by freezing, those portions of the brain comprised in the corpora striata, having lost none of their power, are left unresisted by their sleeping antagonist, and being directly opposed to the propelling function of the cerebellum, the balance is temporarily destroyed, and the locomotive efforts are all backwards, down to the turning of repeated sommersaults if the animal be on foot, or a backward circular motion if in the air. Instead of freezing the brain let a shot pass through it, and the same phenomena will ensue, modified, however, by the coarseness of the operation, which, except by accident, can never be expected to be so localised as when performed under such favourable circumstances as the experience and appliances of Dr. Richardson afford.

During the shooting season which has just commenced, many interesting facts will present themselves; and most frequently, when a single shot only has been the fatal one by penetrating the delicate skull of the quarry, then will be the time to examine the several parts of the bird's brain, and to record where the injury has been received, in connexion with the motor phenomena observed before death.

Let, then, the sportsman's keen eye be on the look-out; so that whilst he gains health and renewed vigour for himself, and dainty food for his friends, he may contribute to the good of all by adding his quota to science.

THE WEEK.

NOTES FROM PARIS.

One of our subscribers writes to us from Paris:—The International Medical Congress is a great success so far as numbers are concerned, although it is felt to be a grand and unique opportunity missed for want of organisation. It was a pity to gather together a thousand Medical men from all parts of the civilised world to listen to the reading of essays with the facts and arguments of which most of them were

already familiar. Whereas it were much to be desired that opportunities had been taken to express the unanimous opinion of the representatives of Medicine on questions on which that opinion ought to be laid forcibly before the public, and before governments. Such questions are the measures necessary for the limitation of cholera, for the suppression of epidemic disease in general, for the limitation of syphilis, for insuring the salubrity of Hospitals, and the like. If the Profession of Medicine has a unanimous opinion on any one of these or suchlike subjects, now would have been the time to have spoken; but for this purpose essays should have been printed and "taken as read," and the meetings have been confined to discussion and the enunciation of resolutions. England is hardly represented at the Congress. There are far more Cossaques than English, and I doubt whether one London Practitioner who read an essay (Mr. de Méric) was a fair representative of English opinion so far as relates to the inspection of prostitutes in private brothels. An English Practitioner might undertake the task of examining soldiers, sailors, and suspected women brought to him by public authority, for the purpose of repressing disease and crime. But it is doubtful whether he may, consistently with Professional ethics, be the servant of a brothel-keeper for the purpose of allowing women to go on in sin. The distinction seems to me real. At any rate, the English ought to be represented as they are, and I doubt whether the very meritorious specialist and syphilographer whom I have named clearly appreciates the sentiments of his adopted country. But, be this as it may, if a commission be appointed which can speak, with a certain authority, to governments on the necessity of suppressing the sources of the syphilis which poisons and disables the seamen of all countries, the Congress will not have met in vain.

The woman Frigard, condemned to penal servitude for life for the murder of Madame Mertens at Fontainebleau, has announced two interesting facts—one that she is four months pregnant, the other that she poisoned her friend with prussic acid. The Parisians are not sparing in their jeers at the experts who on the part of the prosecution ascribed death to pressure on the stomach!

Paris is suffering under a monomania. All the world is talking of the Zouave Jacob and his miraculous cures. It seems that a member of this (usually) homicidal fraternity professes himself able to cure disease, but especially lameness and wounds, and Paris believes in him. Cripples of all sorts come to him. His formula is simple: "Throw away your crutches, and walk." He has been summoned to Bourg-la-Reine to see Marshal Forey, who has been for some months ill with paraplegia. "Get up and walk," said the Zouave, and the Marshal did so. All Paris is in a ferment. People (says *Figaro*) not only form a *queue* in the streets, as they do at the doors of a theatre, but they take tribute to insure their admission in turn. One old lady had obtained a ticket, No. 785, which she hoped would admit her to this new worker of miracles on September 16. The following *morceau* from *Figaro* must remain untranslated: French it is, and French let it remain. An old woman and firm believer *loquitur*:

"'Ah! monsieur, c'est effrayant! Hier il a guéri deux paralytiques, avant-hier trois poussifs, et, pas plus tard que ce matin, il a soufflé sur un perclus qui a descendu l'escalier en faisant la roue. On dit que la semaine prochaine il doit ressusciter un mort.'

"'Ah! ça, mais, c'est donc le bon Dieu que ce zouave?'

"'Ma foi, monsieur, je n'en sais rien; mais *c'est presque aussi pire!!!*'"

PROFESSOR MICHAEL FARADAY.

The death of Professor Faraday, which took place on Sunday last at Hampton-court, has deprived the scientific world of England of one of its most distinguished leaders and one of its brightest ornaments. He was the last, and undoubtedly the greatest, of the English chemical philosophers who were instructed by, or were the immediate successors of, Sir Humphry Davy—the men who made an English School of Chemistry before the star of Liebig appeared on the horizon, and worked, and taught, and discovered, unprompted and uninspired by foreign genius. The physical sciences on which Medicine rests are so enormously indebted to the great philosopher who has passed from amongst us, that no apology is necessary for introducing in a Medical periodical a sketch of his history; but, were it otherwise, the fact that the imperfect science of Medical electricity has received a real impetus by his discovery, in 1831, of the interrupted (Faradic) currents, alone would give him no small claim on the respect and gratitude of the Profession of Medicine.

Faraday was a self-made man in the true acceptation of the term. He did not succeed without help, but he made the friends who helped him, and the most valuable help was that he received from himself. He was the son of a smith, and was born in the neighbourhood of London in the year 1794. His early education was scanty, and when his boyhood was over he was bound apprentice to a bookbinder named Riebau, in Blandford-street. But he had thoughts above leather, and his tastes were already leading him to the physical studies which were to immortalise him. All his spare time was employed in chemical experiments, and he accomplished the feat of constructing, unassisted, an electrifying machine. He disliked the occupation which had been chosen for him, and longed to exchange it for the humblest servitorship in the household of science. In 1812 a gentleman who resided in his neighbourhood, and had become acquainted with his enthusiasm, procured him admission to Sir Humphry Davy's lectures then being delivered at the Royal Institution in Albemarle-street. The bookbinder's apprentice took notes of the lectures, and, when his day's work was finished, wrote them out in full, and at the end of the course sent them to the lecturer, accompanied by a letter in which he begged Sir Humphry to help him "to escape from trade, and to enter into the service of science." The appeal, and the evidence of ability which accompanied it, were successful, and early in 1813 Faraday received the offer of the post of assistant in the laboratory of the Royal Institution. The offer was, of course, gladly accepted, and in the March of 1813 commenced a connexion with that institution which was only severed by the philosopher's death. Between Sir Humphry Davy and his pupil a warm friendship sprang up, and he accompanied Sir Humphry as his secretary in the Continental tour he made in the years 1814 and 1815. In 1821, while assisting Davy in investigating the relations between electricity and magnetism, he lighted on "the brilliant discovery of the convertible rotation of a magnetic pole and an electric current," the first of the observations which were to found anew and establish the science of electricity. In 1823 his investigations procured him the honour of election as corresponding member of the Academy of Sciences, and in 1825 that of the Fellowship of the Royal Society. In 1827 he published his work on "Chemical Manipulation," which still maintains its place as one of the best books on the subject, and two years afterwards he was appointed Professor of Chemistry at the Royal Military Academy, Woolwich. In 1831 appeared in the *Philosophical Transactions* the first instalment of his investigations in electricity, which was followed by a series which spread over many years, and which probably is unique in the annals of science, as an uninterrupted succession of brilliant discoveries by one observer. These memoirs were afterwards collected and published in a separate form. Honours now fell thick upon him. The Chair of Chemistry at the Royal Institution becoming vacant in 1833, he was naturally chosen to occupy it. Lord Melbourne, in acknowledgment of his discoveries, gave him a pension of £300 a year. He received from the University of Oxford an honorary degree, and was elected one of the eight foreign associates of the Academy of Sciences. He was decorated by the Governments of France, Prussia, and Italy, and in 1858

the Queen graciously allotted to him a residence at Hampton-court. From the Royal Society he received the Royal and the Romford medals. This shower of honours, however, neither injured the philosopher nor the man. To the last he was the same modest assiduous disciple of nature; to the last he was the same clear painstaking teacher and careful experimenter; to the last he was the same ingenuous kindly man. England has many names high in the roll of science. It has scarcely any that will endure longer, or throw greater light adown the gulf of time, than that of Michael Faraday.

CASE OF CHOLERA.

We are sorry to hear that a case of undoubted cholera has been admitted into the London Hospital. A woman, aged 31, became ill at 8 a.m. on Monday, and was taken into the Hospital, under the care of Dr. Davies, on Tuesday, at the same hour. On Monday, she had only had purging, and what she called dry retching; but on Tuesday, vomiting and pain in the abdomen came on. When admitted, her face was livid, eyes sunken, tongue cold, hands cold, blue, and shrivelled, voice weak, and pulse only just perceptible. The temperature in the axilla was 95·2° F. Shortly after admission, she passed a rice-water motion. No drug treatment was adopted; the patient has done well, and is now in the stage of reaction. Although it is believed that the patient will recover, this cannot of course be confidently stated. Her father was, her friends said, lying dead at home of cholera. We are indebted for the particulars of the case to the courtesy of Mr. George Mackenzie, Resident Medical Officer.

THE CHOLERA.

The cholera still spreads, though its activity during the past week has not equalled that of the week before. The disease is still in Italy, and it is doing considerable mischief in Holland. The statement of the *Globe* that it had broken out in Belfast is incorrect, the cases attributed to cholera having been merely the result of what is termed English cholera or of diarrhœa. In America, too, it continues to extend. As yet Italy has suffered most, the epidemic being now diffused throughout its entire length, from the southern coasts of Naples to Milan. On the south coasts of Sicily, Marsala, and Trapani, the fatal cases have not been numerous. Messina has not so favourable a report to offer; but at Palermo and Catania the disease reached its highest intensity. The population of Palermo is 20,000, and the deaths vary from 150 to 400 per day—a ratio which, if it occurred in London, would give a condition of things equal to that of the plague period, if not worse. The present condition of Palermo is one of utter desolation. The shops are all closed, the wealthier inhabitants have fled, and the poorer ones have encamped in tents on the outskirts of the town and at the foot of San Pelegrino. At Catania the cholera decreases, and Naples may be said to have had a good escape. But Albano seems to be a veritable plague-spot. A pretty town in the environs of Rome, and with about 5000 inhabitants, its mortality has been at the rate of 50 per day. Frascati has fared a little better. At Florence and Leghorn few deaths occurred. At Genoa, Bergamo, Brescia, and Milan, the deaths have been about 13 a day. At Aosto there has been a diminution of mortality, and on the coast between the towns of Genoa and Marseilles we are happy to say that no cases of cholera have been yet reported. The strictest quarantine is maintained at Trieste, and with the best results. The disease is still at Rotterdam, and, what is worse, it has spread to the neighbouring towns and villages, and in all these places it proves terribly fatal. It is remarkable that most of the Belgian papers carefully abstain from giving information as to the extent of the epidemic. We suppose this is from the same motives as those which influenced the French press last year—the desire to prevent a panic. Such a policy is unwise. A thorough acquaintance with the danger is the best safeguard a people can have. It must be remembered too, that the dreadful panic lately prevalent in Italy was the result of a report originally spread by the liberal party in 1837, with a view to enrage the popular mind against the King of Naples. At Nicaragua the cholera has broken out with its usual violence. On the north coast whole villages have been depopulated. Among the Mosquito Indians 200 ranchos have been stripped of their inhabitants. Metagalpa and Tinotega have been decimated, and the latest official report from Leon puts down the deaths from this disease at 794. On all sides we are surrounded by the pestilence. It has not yet invaded our shores, but we cannot be too careful in the exercise of those powers with which the quarantine laws endow us. Cholera has not reached England, but it has broken out on the high seas between Europe and America, and already there have been three cases admitted into the Dublin Hospital. Though we would not alarm the public, we cannot but see that it may come upon us at any moment. Let us, therefore, wait and watch, but let our motto ever be *semper paratus*.

RETIRING PAY OF ARMY MEDICAL OFFICERS.

The recently proposed plan for accelerating promotion in the three non-purchase corps of our army—viz., the Engineers, Artillery, and Marines—contains, as one of its main features, a proposal which, if extended in its operation to the Army Medical Department, would, we doubt not, be most acceptable to the members of that service, and that is, that on retirement an officer may, as he chooses, receive, according to the period of his service, a graduated annuity, or a corresponding sum in commutation. It is proposed that the first period of optional retirement in any of the non-purchase corps shall be after twenty-two years' service, and when the probable age of an officer would be about 42. The annuity to be £250 per annum, the probable value of which would be £3270. The second period shall be after twenty-five years' service, at the probable age of 45, on an annuity of £325—estimated at the value of £4080. There are other gradations in the scale, to which, however, we do not allude, as they do not refer to periods of "early retirement"—the still longed-for *desideratum* of the Army Medical Department. Under present rules, a Medical officer, after twenty years' service, can only retire, for his own convenience, on a daily allowance of 10s., or £182 10s. per annum, while, after twenty-five years' service, the scale is 12s. per diem or £219 per annum. Now, as Medical officers are, on an average, 22 years of age when they enter the service, it would be only just that on their reaching the age of 42—or, in other words, after twenty years' service—they should be permitted to retire on at least the same terms as officers of the three seniority corps. Such a regulation would certainly give a wonderful impetus to promotion throughout the Department, and would, we feel assured, attract into it many of the highest class of young Medical men.

"THE UNDERGROUND RAILWAY A DANGEROUS MINE."

Under the above title our respected contemporary the *Globe* has given a couple of leading articles, which would induce one to think that it had been the subject of a cruel hoax. The *Globe* has discovered that this railway, which, as our readers are aware, runs a considerable distance underground in traversing London from west to east, and to the noxious nature of whose atmosphere we have already alluded, is rapidly passing into a state which may end at any moment in a blow-up. After indulging in a highly coloured sketch of the effects of this explosion, the worthy paper proceeds to give its reasons for coming to this conclusion—reasons which certainly show that the scientific skill at the command of the *Globe* is of a more than questionable description. The place, say they, is filled with *chokedamp*. In that respect we to a certain extent concur with them; for the engines, although they

consume their own smoke, cannot get rid of the consequent carbonic acid in the same way. "Not only so, but firedamp is rapidly forming." But here our respected contemporary's science fails us; we are not told how, and we confess we do not see how, the carbonic acid is to become converted into light carburetted hydrogen. No doubt the latter gives rise to the former when it explodes; but how the process is to be reversed we know not, and where the gas is to come from otherwise we are ignorant. Again, we are told that every precaution is taken against the escape of the gases in the tunnels; and in this way —"In certain manufactures in which noxious products originate, steam is made to meet these, and to keep them from escaping." So it is with the Underground. For our own part, however, we cannot perceive the exact analogy between the two cases. This firedamp, which seems to be the *Globe's* great bugbear, is not a very soluble gas, and it is only by dissolving such gases (*ex. gr.*, hydrochloric acid) that the steam acts. If they are dissolved, they are got rid of; they sink into the soil, or into any other receptacle prepared for them. But the crowning absurdity comes when the *Globe* declares that there is good reason to believe that the air of these tunnels has never been changed since the railroad was opened. We can scarcely credit our own senses when we see one of the teachers of the people writing in this strain. Can he be so ignorant as to know nothing of the diffusion of gases, and yet venture to write on such a subject? Can he suppose that the same air, vitiated by the escape of so many deleterious gases from passing engines and passengers, could for several years continue to support life without occasioning any very great inconveniences? If so, it is high time he went to school again.

MICROSCOPIC TOXICOLOGY.

In the *Pharmaceutical Journal* Dr. Guy, Professor of Forensic Medicine in King's College, has been publishing certain researches which, we think, are well worth more general attention. Some years ago, Dr. Guy directed attention to the fact that the crystalline shape of many bodies belonging to the inorganic world might lead to their detection. Subsequently, Helwig, of Mayence, took the matter up, and showed that the plan was applicable not only to inorganic, but also to organic substances, especially to the poisonous alkaloids. Now, Dr. Guy has resumed the subject, and has attained results which are certainly more than a little extraordinary. By improving on Dr. Helwig's process, and substituting a bit of porcelain and a glass ring, on which a microscopical slide may rest, for a depression in a piece of platinum foil, Dr. Guy has been able to watch the process more minutely and to regulate it more exactly. He has by this means been able to obtain characteristic crusts composed of crystals of strychnine weighing not more than $\frac{1}{500}$ or $\frac{1}{600}$ of a grain. Morphia gives equally characteristic results. For the examination of these crusts Dr. Guy recommends a binocular microscope with an inch object-glass. But it is not to these crystalline forms alone that one need trust; the whole behaviour of the substance as it melts and is converted into vapour is eminently characteristic, and when once deposited on the microscopical slide under the object-glass, the application of reagents may give still more satisfactory results. The reagents, however, which are here to be applied are not of the kind ordinarily employed. Colour tests under the microscope are, comparatively speaking, useless; those that give rise to peculiar crystalline forms are rather to be sought after. For instance, the crystals produced by the action of carbazotic acid on morphia are by themselves almost perfectly characteristic. These experiments should not, however, be undertaken for Medico-legal purposes by one unskilled in their conduct, for the effects of the reagents themselves might be mistaken by the uninitiated for the result of their action on the substances under examination. Those interested in the subject we would refer to the original article, assuring them that they will not be disappointed in their perusal.

FROM ABROAD.—ANIMAL VACCINATION—THE PASCAL-NEWTON MYSTERY—PHTHISIS AMONG THE LYONS WEAVERS.

M. Guérin, in opening the discussion on M. Depaul's report to the Academy of Medicine on the results obtained from "animal vaccination," protested against the exclusive attention which has been paid to this new mode in Paris during the last two years, instead of a faithful comparison having been instituted between it and the old mode. To this latter it has been objected that the virus obtained by "human vaccination" has degenerated in power, and that it has often been contaminated by syphilitic poison; and before rejecting a procedure so long successful it is requisite to inquire into the reality of these objections against it. It is indeed a fact now generally admitted that vaccination has lost some of its preservative power, and M. Bousquet himself, who so long denied this statement, now admits it. But two questions call here for examination—Is such degeneration general and absolute, observable in all countries and regions? and may not a greater virulence of the variolous epidemics have something to do with the relative insufficiency of vaccination. These points want examining, for many Practitioners totally deny the diminution of the efficacy of vaccination in their localities, and there is reason, both from experience and analogy, to suppose that the intensity of variola may vary much in different epidemics. There is a necessity also of making a more careful selection of the virus to operate with, for a defective virus is often employed, and unsatisfactory results follow, especially when such defective virus is propagated from child to child in succession. The selection, propagation, and maintenance of the finest virus—a true "vaccine culture"—ought to be the object of those having authority in the matter. As to "vaccinal syphilis," M. Guérin believes that in very rare instances it may exist; but many of the narratives which have been published of late are wholly destitute of proof, and the liability of such transmission has doubtless been grossly exaggerated. In numerous instances in which the vaccine virus has been taken from subjects exhibiting symptoms of syphilis, no transmission of the disease has occurred.

There is no case made out for a radical reform in the practice of vaccination, and this "animal vaccination," introduced by a young Physician from Naples, has been received far too readily as an improvement; for in point of fact it is a mere assertion that it protects from variola as well as the ordinary vaccination. While the virus employed in the latter originated in spontaneous cow-pock, that used in animal vaccination is derived from an artificial cow-pock; and all must admit that a spontaneous agent is of more powerful action than an artificial one. The vaccine virus also, transmitted through successive generations, may acquire peculiar and important properties, while the animal vaccination is a much more special and limited affair, the heifer being resorted to afresh in each case. Even comparing the appearances produced by the two viruses, as stated in the report, it is found that those produced by human vaccination are more regular, and more durable, and more energetic. In fact, as far as we are acquainted with the results of the employment of this virus, M. Guérin regards it as illusory and a mere Utopia. He quotes the adverse opinions of many Hospital and private Practitioners who have found it decidedly less efficacious in vaccinating and revaccinating, to say nothing of its preservative effects, which time alone can demonstrate.

The Academy of Sciences finds itself in a fix concerning the Pascal-Newton correspondence, for the committee which it appointed to investigate its authenticity and report has declared, after a careful examination of the documents, that it is unable to form an opinion. It is, in fact, a matter more for the *experts* in writing than for the Academicians, and so MM. Chevreul and Le Verrier declared it to be. M. Chasles declares that he continues to believe in the complete authenticity of all the documents which he has laid before the Academy, and no one would doubt his loyalty in the matter;

but of course he may have been deceived, as collectors of curious letters often have been. M. Faugère, however—a great authority in all that relates to Pascal, and after a most careful examination, has declared that he is thoroughly convinced these letters are the work of a forger, and that the entire correspondence is due to the same hand. M. le Verrier observed that a chief reason why the committee could make no report on the subject was, that M. Chasles has always refused to give any information as to the origin of the documents in question. Such a refusal as this he declared as likely to add to any doubts that must exist in the minds of those least disposed to entertain them. Our readers will have seen that Sir D. Brewster has pronounced the letters an utter imposition.

At the Lyons Medical Society M. Chatin read a report on phthisis as observed at the Croix-Rousse Hospital of that city, situated in the silkweavers' quarter. He concludes thus:—1. The proportion of cases of phthisis in the Hospitals of Lyons is greater than that of any other great Hospitals, whether in France or abroad. 2. At the Croix-Rousse the mortality from that disease has been, during the five years 1862-66, nearly a third of the general mortality. 3. Acquired phthisis very frequently attacks the weavers, and especially the female weavers and winders. 4. Young girls and women are more especially attacked by the disease by reason of the coincidence of the period of apprenticeship and the establishment of menstruation.

It seems that there are great abuses in the direction of labour and apprenticeship, and M. Chatin states that these must be removed before any diminution of the number of cases can be hoped for. The abuses especially prevail in the small *ateliers*, those employing less than twenty workpeople not being under regulations. But even in the others the regulations are constantly violated with impunity. M. Chabalier, besides the predisposing causes mentioned by M. Chatin, refers to the overcrowding, and the resulting bad hygienic conditions. Eight or ten looms are crowded into a narrow unventilated apartment, which is often used also to sleep in. The diet is bad, consisting of vegetables, cheese, and fruit, in place of azotised food. The young girls mostly come from the country, and become the subjects of obstinate chlorosis, which iron does not relieve. In four or five years they acquire phthisis, which pursues a rapid course, the poor creatures dying in a state of prostration at the looms. Another evil is the utter want of exercise, as these girls never quit the looms; and among the causes of exhaustion may be mentioned the considerable quantity of saliva they are obliged to employ in the adjustment of the ends of the silk.

DEATH OF PROFESSOR VELPEAU.

The Paris Faculty of Medicine has been deprived this week of one of its most eminent members. Professor Velpeau breathed his last on Saturday, the 24th inst. We cannot allow so illustrious a Surgeon to disappear from the scene without giving a short sketch of his singular destiny.

Velpeau was born in 1795, and was the son of a country blacksmith, and in his early years plied his father's trade. He received no higher education than what was usual in his station of life. When a lad of fifteen he was admitted for some slight disorder as an indoor patient at the Hospital of Tours. This trifling circumstance had a decisive influence upon his whole career. During his convalescence he acted as a servant in the wards of the Hospital. The quickness of his intelligence, and the interest which he seemed to take in everything connected with Medicine, attracted the attention of Bretonneau, under whose care he was placed. "Would you like to be a Doctor?" said he one day to this clever lad. "Of course I should," was the reply. On inquiring into the amount of education of his *protégé*, Bretonneau was informed that he was acquainted with the arts of reading and writing, and the four rules of arithmetic. Young Velpeau was sent to school at Bretonneau's expense, and, without ever becoming a first-rate classical scholar, soon acquired enough Latin to pass the examinations which it was indispensable to get through before commencing his Medical studies.

He entered that Hospital as a student which he had formerly entered as a patient, and soon took his degree as an *officier de santé*.(a) He then paid a short visit to Paris, just to see the great city before settling in practice in his own native place. But when he beheld the immense advantages which Paris held out to all those who wish to acquire instruction, a change came over his spirit. He gave up all idea of ever returning home; and, in spite of poverty—in spite of neglect—he began to work his way up. He gave lectures on anatomy, got a few pupils, and managed, by strenuous exertion, to keep body and soul together. His first great success was his nomination to the Prosectorate of the Faculty, which enabled him to improve his anatomical knowledge and establish his position as a rising man. The generous patronage of Professor Cloquet greatly helped him on at this time. He rapidly obtained his Doctor's degree, and became successively Surgeon to the Hospitals, and Assistant-Professor at the Faculty of Medicine.

In 1830, the Professorship being thrown open to competition, Velpeau at once entered the lists. He went in five times before succeeding, and each time he produced a book on the subject taught in the chair for which he was a candidate. At last, in 1835, he was appointed to the chair of Clinical Surgery, and entered the Charité, in which he continued to lecture till he took to his bed, never to rise again.

Velpeau's Hospital was, in fact, his life. In an Hospital he laid the foundation of his fortune; and in his Hospital alone did he feel happy—he there found himself surrounded with a crowd of students, to whom his word was law. Not by any great display of eloquence did he gain this unparalleled authority—his language often betrayed the habits of the forge, which he had never been entirely able to lay aside; but in his strong sense and excellent Surgical tact lay his real strength. The surface was rough, but the metal was sound.

It must also be confessed that we often demand the most contradictory qualities from men of eminence, without reflecting how completely they exclude each other. "Had Napoleon been moderate in his views," we are apt to say, "he would have never fallen from his throne." Ay; but if he had been moderate in his views, would he ever have ascended it? To complain of a want of softness of feeling and of refinement in a man who, like Velpeau, conquered all obstacles by his iron will, is to complain that fire is too hot or ice too cold.

Velpeau entered the Academy of Sciences in 1842, and since then he may be said to have held the sceptre of Science. No doubt, in his latter days his glory was somewhat dimmed by the lustre of other rising men, but he stood forth in the eyes of all Europe as the Nestor of French Surgery. His numerous pupils, many of whom rank amongst the most eminent men of our day, held him in the greatest veneration, and even his adversaries were obliged to acknowledge his superior talents.

The disease under which Velpeau had been suffering of late was an enlargement of the prostate. He had only been confined to his bed for a few days when he was seized with pneumonia, which speedily proved fatal. His last words were, "*Il faut toujours travailler, mes amis.*"

The works of Velpeau are too numerous to be enumerated here. He will principally be remembered as the creator (in France, at least) of Surgical anatomy, and as the man who, in spite of the opposition of micrographers, overthrew the belief in a specific element of cancer. His works on Operative Surgery, on Obstetrics, on tumours of the breast, have been classical in their time, but are of course superseded by more recent publications. But the history of his life will achieve, perhaps, more than his fame, than any of his scientific labours. In him we see a man who, by the sole force of his will, raised himself from the lowest ranks of society to the highest, and this not in one of the democratical States of the New World, but in one of the oldest centres of European civilisation. Let not the example be lost upon those who perpetually complain that in the old countries there is no promotion to be expected for indigent merit.

(a) The *officier de santé* is an inferior kind of Medical man, who can only practise in his own department (or county).

An immense crowd, comprising half the Medical population of Paris and nearly all the members of the International Congress, attended his funeral. Nor is this to be wondered at, for Velpeau's pupils have filled the civilised world, and all are unanimous in the praise of their old master. However rough he might be to others, he always acted as a father to them, remembering, as he did, the assistance which in early years he received from a generous hand. He was happy and proud to allude to his first beginnings, and, mindful of his own struggles, was always prepared to assist a student in difficulties—a feature in his character which rendered him deservedly popular. In other respects, Professor Velpeau, like many other men who have worked up their way to the surface of society, was a decided opponent of democracy. He would in England have passed for a strong Tory, and was in France a firm adherent of the present Government.

Professor Velpeau leaves an immense fortune and an only daughter, who is married to M. Thoinet de la Turmélière, a Member of the Legislative Body.

REVIEWS.

Uterine Disorders: their Constitutional Influence and Treatment. By Henry G. Wright, M.D., M.R.C.P., Physician to the Samaritan Hospital for Diseases of Women. Pp. 268. London, 1867.

The author, in the preface to his work, points out the motives and the purpose of his present task. Connected with a Hospital instituted especially for the treatment of diseases of women, many thousands of cases come yearly under his observation. With such rich material he experienced at the outset (quoting his own words) "considerable difficulty in endeavouring to reconcile, for practical use, the discrepant opinions as to the pathology and treatment of such cases. The last books afforded precise information as to the latest views, but a certain disadvantage attended this very exactness—for that scrupulous impartiality which records with equal favour all opinions, however conflicting, which supplies knowledge, and delegates the work of judgment, is rather admirable than practically useful."

These difficulties, which he encountered on his path, the author has striven and has succeeded in clearing to his readers, whom this work will serve as a thread of Ariadne to lead them through the maze of conflicting opinions in literature, and of too often bewildering nosocomical features in practice.

This work is a thoroughly practical book, an instructive manual to the student, a valuable guide and reference to the Practitioner. Everywhere Dr. Wright evinces discriminating appreciation of past and contemporaneous experience, careful study and investigation of the rich material afforded to him in his public and private Professional position, original thought, and teleiological purpose and execution.

Great credit is due to his antiquarian researches and classical lore, evidently his favourite study. He shows that the diseases of the female sexual sphere were the subject of special attention already with the Greek and Roman Physicians, by whom many disorders were well known, accurately understood, and properly treated. He disinters ancient methods of investigation and treatment, which, after having lain buried in oblivion during intervening centuries, and revived in modern times, were often hailed as recent advancements, thus detracting the claim of originality from many modern inventions and discoveries—e.g., ulceration of the womb fell already under the observation of Asclepiades, whose experience has been incorporated by Aëtius in his chapter on that disorder. Aëtius describes suppositories and medicated pessaries made in the manner of our modern ones. He also points out the value of examining displacements of the uterus "speculo et digito." Paul of Ægineta lays down rules for the use of the speculum. Interesting drawings of ancient specula in this work are copied from Scultetus and Vulpius. The female catheter was in use at the time of Pompeii's destruction, and may be seen at present at the Museo Borbonico at Naples.

A detailed historical account of gynæcology constitutes the first chapter of Dr. Wright's book.

The second chapter treats of the disorders of place. Due attention is paid to the anatomical, physiological, and pathological conditions of the sexual organs and their environs. The treatment embodies all the ancient and modern theories, critically tested and independently investigated by the author, illustrated by interesting cases.

The third chapter on disorders of function, and the fourth on disorders of structure, are written with the same thoroughness.

It would be useless to follow the author step by step. We strongly recommend this book to careful perusal, which will prove time usefully and pleasantly spent, as this book, besides its intrinsic worth, has the additional merit of being written in an elegant, fluent, and concise style. In some instances, the author waxes almost enthusiastic on his subject, and then his language becomes elevated, without, however, meandering into wordy fine writing, and deviating from its subject.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

THE INTERNATIONAL MEDICAL CONGRESS OF PARIS.

Monday, August 19.

The discussion on the morbid anatomy of tubercle was resumed.

Dr. Empis observed that diseases are not exclusively characterised by morbid alterations of tissue, but also by the symptoms which they exhibit. He contended that the signs of tuberculosis and the evolution of the disorder were totally different from those of granular infiltration. He brought forward most of the arguments contained in his well-known book on "Granulie," and pleaded in favour of the radical separation of these two morbid conditions.

Dr. Cornil, in a long and rather prosy communication, brought forward his views on the structure and formation of tubercle—1st. In the pia mater. 2nd. In the brain. 3rd. In the lungs. He supported the views of Dr. Hérard; he maintained that tubercle was always formed along the vessels, and informed the assembly that his microscopical preparations were at the disposal of all the members who wished to examine them. After speaking for more than half an hour on this subject, Dr. Cornil was interrupted by the impatience of his audience, and requested to give his conclusions. He declared that, in his opinion, the inflammatory process and the development of tubercular granulations were simultaneous, and that the name of *tubercular pneumonia*, which he had proposed in the book he had published with Dr. Hérard, was the most appropriate to the whole process. He differed, however, from Dr. Villemin as regards the histological structure of grey tubercle, and of the products of inflammation; they are totally different, and must, in this respect, be carefully distinguished.

Dr. Bakudy, Physician to the Protestant Hospital of Pesth, exhibited a great number of photographic plates, and placed his microscopical preparations at the disposal of the Congress. He gave a short account of his views on the histology of tubercle, which he considered as a heteroplastic production, quite distinct from the epithelial proliferation which so often accompanies it, and which is the result of inflammation.

After some remarks from Drs. Linas, of Paris, Sego y Valdor, of Madrid, and Lombard, of Geneva, Professor Friedreich rose to contradict some of the opinions advanced by Dr. Cornil. He allows that, in the pia mater, the granulations of tubercle are generally along the vessels; but this is not the case, according to his own researches, in the lungs.

The discussion was then opened on the subject of

Tuberculosis in Different Countries, and its Influence on Mortality.

Dr. Marmisse, of Bordeaux, read a printed paper on the statistics of consumption in that city.

Dr. Sarramèa, of Bordeaux, read a paper on the prophylaxy of tubercle. He considers insufficient food and unhealthy lodgings as the principal causes of consumption, especially in young subjects. He considers gymnastics, and other hygienic measures, as the best remedies against that disease.

Dr. Dropsy, of Krakow, stated that, having practised for more than thirty years in a most healthy climate, he felt competent to say a few words on the subject of tuberculosis. The peasants in Poland are almost entirely free from consumption, which chiefly recruits its victims among the Jews—so much so, that the race will probably disappear within two or three generations. The poverty of the Jews, the deficiency of

proper food, and the miserable dwellings they inhabit are the principal causes of this painful state of things.

Dr. Jaccoud, in the name of Dr. Homan, of Christiania, read a paper on the extension of tuberculosis in Norway. It would appear that from 1853 to 1863 the number of deaths attributed to consumption amounted to 7792, out of a total of 57,869, giving a proportion of 134 out of 1000. It appears also that consumption is more frequent in Christiania and Christiansand than in the other parts of the country in which reigns the endemic disease known under the name of *spedalskhed*.

The next question inscribed on the official list was—

THE INFLUENCE OF CLIMATES, RACES, AND SOCIAL CONDITIONS ON MENSTRUATION.

Dr. Lagneau, jun., read a paper on Menstruation considered in an ethnological point of view. His statistics were founded on 15,948 cases. His results are the following. The mean age at which the first menstruation occurs is—

In North Germany .	16 years,	9 months,	16 days.
In England . .	14 ,,	11 ,,	2 ,,
In France. . .	15 ,,	1 ,,	21 ,,
In Southern Asia .	12 ,,	11 ,,	17 ,,

Dr. Joulin has arrived at somewhat different results on the same subject. A review of 16,517 cases has led him to the following conclusions. The age at which the first menstruation takes place is :—

In temperate countries . . .	15
In warm countries	12
In cold countries	16

Dr. Joulin, casually alluding to the slow progress of population in France, states that the number of births has considerably declined among the French peasantry, while the diminution is far less perceptible in towns, contrary to the assertion of Professor Broca.

Professor Leudet, of Rouen, read a paper "On Menstruation in the City of Rouen and the Department of the Lower Seine." He fixes the age of the first menstruation at Rouen at $14\frac{9}{10}$ years, while at Paris it takes place earlier, and later at Toulon. With respect to the social condition of females, the Professor states that in the towns of the Department menstruation takes place earlier than in the country districts, and that in the higher classes it occurs sooner than among the workpeople. As regards fecundity, the Professor has drawn up the following list :—

134 Women in easy circumstances have had	271	children.
153 Peasant women	345	,,
920 Workmen's wives	2532	,,

The slow increase of the population in France ought, therefore, so far as these figures can be relied upon, to be ascribed rather to the peasants than to the working men who inhabit cities; such, at least, appears to be the case in Normandy.

Dr. Ball read, in the name of Dr. Tilt, a paper on the influence of climates, of races, and of social conditions on menstruation. In this paper, which condenses the results of extensive researches, Dr. Tilt attributes a paramount influence to climate as the prime mover of menstruation; he shows that menstruation commences earlier, and appears to last longer, in warm than in cold countries; lastly, he establishes that in the tropical regions European females experience such disorders of the menstrual function that the races of the North will never be able to colonise Southern Asia.

Several other papers had been sent by various authors upon the same subject. Dr. Mayer, of Berlin, Dr. Voit, and Professor Faye, of Christiania, had transmitted large statistical accounts of the phenomena of menstruation in their respective countries, with maps and charts. On account of their length these papers were deposited in the Acts of the Congress, without being read. The same fate awaited Dr. Cowie's paper on menstruation in the Shetland Islands, which, being written in English, would not have been understood by the great majority of the persons present.

TUESDAY, AUGUST 20.

Dr. Bole, of Castel-Sarrazin, read a paper on the remittent fever which prevails in that city and the adjoining districts, and is often mistaken for typhoid fever; it gives way rapidly, however, to the exhibition of sulphate of quinine in large doses.

Dr. Pantaleoni, of Nice, gave an interesting account of the remittent fever which he had observed at Rome during twenty-five years' practice, and at Nice during the last seven years. This disease resembles typhoid fever in many essential symptoms, but differs from it in exhibiting no diarrhœa, and producing no lenticular eruptions. When post-mortems are allowed to take place, no alteration whatever is to be found in Peyer's patches.

Professor Polli, of Milan, read a paper on the treatment of zymotic diseases by the sulphite and hyposulphite of magnesia. The Professor entered into a long description of the results obtained by this mode of treatment in small-pox, in measles, in intermittent fever, and in various other affections which may be attributed to the existence of organic poisons in the blood. He also mentioned the results of his physiological experiments on dogs, who, after being poisoned by the injection of putrid substances into the veins, rapidly recovered under the influence of these salts.

Professor Crocq, of Brussels, expressed his doubts as to the efficacy of this mode of treatment, which he had often tried without any satisfactory results.

Professor Polli maintained his conclusions, and appealed to the testimony of various Italian Physicians who had successfully employed his system.

Professor Crocq then read a paper on the treatment of Bright's disease by the iodide of potassium. He considers this method as by far the most efficacious, when properly administered. There are, he says, three distinct periods in the disease—1. Congestion; 2. Exudation; 3. Fibrous or fatty transformations. The first two stages are curable, but the third is not. Professor Crocq has obtained the most beneficial results from this treatment, and has never witnessed any evil consequences from its adoption.

Dr. Lallement, of Charleville, read a paper on the treatment of typhoid fever, in which he stated that bleeding is the only true remedy.

Dr. Milliot, of Kiew, read a paper on a new system of exploration of the internal organs, which he calls *somatoscopy*. It consists in rendering the body transparent, by introducing into the œsophagus or rectum a glass tube, which contains platinum wire, and is connected with an electric apparatus. By making the electric light to pass through these tubes, Dr. Milliot is able, according to his own assertion, to illuminate the interior of the body, and turn it into a lantern. His experiment was tried in an adjoining room, upon a dog, and the results are variously reported; for our own part, we were prevented from seeing anything by the density of the crowd, the bodies of the spectators being anything but transparent.

The importance of the discussions which took place on the ensuing days, more especially on the question of syphilis, and the extreme length of the debates, oblige us to put off the report of these sittings to our next letter.

On Saturday, the 24th inst., a banquet took place at the Grand Hotel, at which between two and three hundred members of the Congress were present. After various toasts to the International Congress, to the President and committee, etc., had been drunk, Professor Bouillaud rose to inform the assembly of the death of Professor Velpeau, and to request their attendance at his funeral—a proposition which was carried by universal acclamation.

ITALY.

ROME, August 12.

THE expectation which I expressed in my last letter—viz., that the physical conditions necessary for the origin of a severe epidemic of cholera do not at present exist as far as Rome is concerned—has until now been confirmed. There have been a few cases dispersed over the whole area of the metropolis, principally at Trastevere and in the Quartier Monti. In the commencement only the filthy class suffered, but this limit no longer exists at present, for the better orders have also paid their tribute to the disease. On the whole, the cases have been very severe, and the proportion of deaths considerably over 50 per cent. Anyhow, Rome may be said to have been comparatively fortunate, as the present invasion does not by any means come up to the severity of the epidemics of 1854 and 1837. A curious feature in the present invasion has been its long duration in equal intensity, without any perceptible decrease or increase. In the former epidemics we had a regular rise and fall within six or ten weeks, during which time one place after another was visited, and the whole epidemic consisted, as it were, of a multitude of small epidemics in houses and streets. In large towns infection is evidently now being spread from many sources at one time, and therefore the course of the disease is more equable, while in small places, where

there is generally only a single focus of infection, there appears to be the old sudden rise and fall of the disorder.

In Albano, near Rome, such a sudden epidemic has broken out. It occurred in the following manner :—A large number of families went from Rome to Albano, after the disease had appeared in the former town, because Albano had been spared in previous epidemics. Towards the end of July and the commencement of August several cases of cholera occurred at Albano. Just at that time the authorities had ordered some old wells and sewers to be laid open and cleared out; while this was being done, a violent thunderstorm broke out, with considerable rainfall and a sudden great diminution of temperature. It was evidently under the influence of these circumstances that suddenly cholera appeared largely on August 6. Within thirty-six hours there were 250 cases, partly amongst the Roman families who had fled there, partly amongst the Albanese themselves. It was at this time that the Dowager Queen of Naples, who had taken up her residence at Albano, died of the disease, as did likewise her confessor and one of her maids. Cardinal Altieri, who is Bishop of Albano, immediately proceeded thither, and did everything in his power to alleviate the misery ; he, too, fell a victim to cholera. One Doctor and several chemists had the same fate. Strangers and natives now fled hastily from the doomed village, but many amongst them died afterwards at Terni or at Rome. Everything was wanting at Albano ; not even the dead could be buried. A company of papal Zouaves was therefore sent to accomplish a wholesale funeral. In the places nearest Albano—that is to say, at Ariccia, Genzano, Frascati, Marino, etc.—only a very few cases have occurred until now, and none of them have ended fatally.

It is very much to be regretted that the Government of Rome still adheres to the old views on the pathology of cholera, and only insists on disinfection of the air by means of fumigations with chloride of lime. Moreover, the inhabitants are not informed of the importance and danger of the premonitory diarrhœa, which, if stopped in proper time, would go far to diminish the actual cholera attacks. I repeat, in conclusion, that, up to the present time, Rome itself has been almost spared, and, with the regular autumnal rains which are soon expected, it is to be hoped that this invasion may be entirely brought to an end.

LIVERPOOL.

August 27.

A GENERAL meeting of the members of our Profession residing in this town was held on Monday evening, August 26, at the Medical Institution, with a view to endeavour to secure the election of Dr. Robert Gee to the vacant Coronership. The attendance was very considerable, and comprised most of the leading men of all branches of the Profession. On the death, a few days since, of the late Coroner, who had been in office since 1836, it was felt by the Medical men of this place that an effort should be made to induce a member of their own Profession to allow himself to be put in nomination for it, and, by general consent, Dr. Gee was at once pointed out as the most eligible, and solicited to stand. The position and antecedents of this gentleman eminently qualify him for the efficient discharge of the duties sought for him ; for it should be borne in mind that they are sought for, more than by, him. With a unanimity that is rarely manifested on similar occasions, and that is the best possible tribute to his fitness for the position, have his Medical brethren come forward and urged him to allow himself to be put in candidature. So far as I can learn there has not been a dissentient voice on this matter ; and though one of the objects of the meeting mentioned above was to afford an opportunity for discussing the claims of any other Medical candidate whom it might be thought well to propose, happily no one seemed to remember it, and the feeling was as unanimous at its termination as it had been all along, it being agreed that if a Medical man should gain the appointment there had been no mistake in the determination of who that man ought to be. In the other profession whose members are eligible for the office in question, there has not been a corresponding oneness of feeling. Two gentlemen, at least, belonging to it are in the field—viz., Mr. Clarke Aspinall and Mr. John Wyberg, and at present both seem disposed to push their claims, and to try the issue of an election. If the coroner's duties could be as efficiently performed by a lawyer as by a highly educated and experienced Medical man, there can be no question that either of these gentlemen would be in the highest degree qualified ; but feeling, as we must do, that their thorough discharge, while it requires no intimate acquaintance with the mere technicalities of legal science, yet does require, and that too in a pre-eminent degree, the special kind of knowledge which nothing but a long and practical acquaintance with Medical questions can impart, we cannot but be convinced that the interests of the public would be better served by a Medical than by a legal coroner, however excellent as a lawyer the latter may have proved himself to be. Dr. Gee has filled, and continues to fill, many important official positions in this town ; he is a Physician of known standing and repute ; and in his former capacities as Lecturer on Morbid Anatomy and Pathologist to the Liverpool Royal Infirmary, he qualified himself in a peculiar manner, even as a Medical man, for investigating and appreciating the evidence bearing on the causes of death.

BIRMINGHAM.

August 27.

SHAKSPEARE has it that "churchyards yawn ;" one in Birmingham has, however, become an exception to this dictum of the immortal bard. Since churchyards were shut a few years ago, they have been selected by the *cwaille* for recreation grounds ; and as that choice class of individuals do not disport themselves with that propriety of demeanour which is seemly, but are fond of amusements noisy, dirty, and destructive, in which defunct cats and dogs play an important part, it may, without any stretch of the imagination, be conceived that our burial-grounds are anything but decent and clean. All praise, then, is due to the officials of St. Philip's, who have removed this nuisance so far as their own churchyard is concerned. They have transformed it into a neat and tastily arranged garden, with trees planted about it, and with a choice shrub and evergreen dotted here and there in *cumuli* of verdant turf, thereby converting what was formerly a funeral waste into a smiling and picturesque *parterre*. Surely such an opening up of the foul spots of the town, and the conversion of them into centres of oxygenation and respiration, must greatly conduce to the health and spirits—I may even say, happiness—of those who live in their vicinity. The shining example thus set will, it is to be hoped, be quickly imitated by the functionaries of other burial-grounds, who may then flatter themselves that they have done some good in their time and generation by adding to the number of hygienic measures for the health of their poorer and less favoured brethren.

Dr. Bell Fletcher, one of our foremost Physicians, has recently drawn attention, by an able letter to the *Daily Post*, to the sadly neglected condition of the imbecile children of indigent parents. He has pointed out, in forcible language, the evils by which they are surrounded, and states that there are no less than 1000 pauper idiots in our immediate surrounding counties who are subjected to them, and all uncared for. For their permanent relief he proposes, amongst others, the following measures :—That a large and influential committee be formed, to look out cases, investigate the circumstances, and supply such means as may be required to send them to such institutions as may be decided upon as best fitted for the case, so that each case may be placed under the most favourable circumstances for its improvement ; that several small institutions be selected in preference to one large one, where home comforts, more homely associations, and direct supervision of a principal, and also proximity to the friends and relations, may be secured ; and that these institutions be under close Medical supervision. Such are a few among the many suggestions contained in his able letter, and if they can be carried out properly and efficiently, I do not hesitate to prophesy that the helpless idiot, instead of being handed over, as he now generally is, to the tender mercies of parochial officials, and always regarded as an idiot, will be placed in a happier position, where his mind is less likely to become obtuser still, and where, if there should be a spark of intellect lying dormant in his brain, it may, perchance, be fanned into a flame by fostering care and humanising influences.

Scarlet fever in a malignant type is raging fiercely in some quarters of the town, and is attended with great mortality. Diarrhœa is also, as might be expected from the intense heat of the last week, very prevalent, but the deaths from it are not above the average of former years.

The engrossing topic of conversation is the approaching musical festival, which is to be conducted on a scale of unusual magnificence. This "feast of the Muses" is the more

attractive and encouraged, inasmuch as the proceeds of it are devoted to the pecuniary requirements of the General Hospital, to the exchequer of which it has furnished, since its inauguration, the munificent sum of close upon £90,000.

GENERAL CORRESPONDENCE.

NEW MODE OF EXAMINING THE MEMBRANA TYMPANI.

LETTER FROM MR. W. SPENCER WATSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Hinton, in his very interesting paper "On the Diagnosis of Diseases of the Ear," has made no mention of a means of examining the membrana tympani, which, I think, has some advantages not possessed by those he has described. I allude to the use of focal illumination, by means of a biconvex lens, used in the same way as Ophthalmic Surgeons employ it for the examination of the crystalline lens and the vitreous chamber of the eye.

The objection to the use of a polished speculum is that the reflected image of the membrana tympani or the lining membrane of the meatus causes some amount of confusion to the observer. Such, at any rate, has occurred to myself in the very limited experience that I have had of its use, and I have consequently had the inside of a bivalve speculum (made for me by Mr. Matthews, of Portugal-street) blackened, and without any reflecting surface whatever.

To compensate for the loss of illuminating power which the absence of a reflecting surface necessarily brings with it, I use a biconvex lens of 3¼ inches focal length, which I hold at such a distance from the meatus that a cone of light is directed on the surface of the membrane. This has the effect of strongly illuminating the membrane itself, and at the same time keeping the surrounding parts in comparative darkness. For this purpose the lamp or other artificial light should be four feet from the head of the patient, and behind the head of the observer.

It is to be observed that the cone of light should be of such a length that a diffused light should fall on the membrane, and the latter should be a little beyond the focus of the lens; otherwise the illuminated part would be too limited in extent to be practically available for the purpose. By moving the lens nearer or further away from the meatus, this object can easily be obtained. When the meatus is sufficiently large in calibre, the speculum can of course be dispensed with.

I have generally found that, when obtainable, direct sunlight gives the best view of the membrane. But of course, if this means of illumination is used, it will not be safe to use a lens at the same time, nor is it at all necessary. It is, I think, a great advantage, when direct sunlight is used, to have a blackened speculum, if a speculum be employed at all.

I am, &c.

W. SPENCER WATSON, F.R.C.S.E., M.B. Lond.

27, Montague-street, Russell-square, August 9.

JOHN DE VIGO'S SUPPOSED ANTICIPATION OF ACUPRESSURE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Any one who has attentively perused Sir James Simpson's communication in this day's number must admit that he has conclusively refuted the hasty and erroneous rendering by Professor Smith of that passage from the writings of John de Vigo, expressed in mediæval or mongrel Latin, which was alleged as embodying the principle of acupressure at so remote a period as three centuries ago. As Sir James shrewdly surmised, the quotation was not only second-hand, but in itself inaccurate. He has, therefore, very properly presented to the Profession the true and authoritative version direct from its source. Doubtless Professor Smith was inadvertently betrayed into this palpable misapprehension by a superficial estimate of the correlative terms "acus," "filum," etc.; but as his very able and eloquent address had been the subject of much previous preparation and careful thought, the "most remarkable example" bearing on his subject-matter at the moment was not undesignedly adduced as a startling *coup* under the special circumstances of the occasion, whereas it is in reality convertible into a fresh proof of the remarkable genius and originality of Sir James.

It is manifest at a glance that the famous Italian Surgeon was at all times neither a very clear writer nor a very classical one; yet, without materially departing from his own words, the following slight alterations and rearrangements may tend to obviate the somewhat ambiguous interpretations which these carry in the order of their author:—"Necessarium est aliquando ligare venam—præsertim arteriam: quia, ipsa ligata, locus a facili incarnatur remedio. Efficitur autem modus ligationis earum aliquando acum sub vena desuper intromittendo, et filum cum facilitate stringendo; aliquando venam ipsam excoriando, deinde in superiori capite cum filo optime stringendo." I am, &c.

Louth, Lincolnshire, August 24. A. D.

REPLY TO DR. DOBELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Dobell complains that I "shield" myself under the anonymous. I complain that he does not.

I have said nothing against Dr. Dobell as a private individual; and I have alleged nothing that requires the authentication of my private signature. I have merely sent you handbills, purporting to be issued by a public institution, and exhibiting Dr. Dobell's name in a way that shows that he clearly does not understand when it is right to publish his own name and when not to do so. My individuality is nothing to the purpose; but, as a member of a respectable profession, I have a right to ask whether the distribution of handbills to Hospital out-patients, bearing Dr. Dobell's name so prominently, is a thing to be approved. Is it not rather a precedent for what might be most mischievous and indecorous?

I have not a word to say against Dr. Dobell's remedy, which is certainly ingenious, possibly useful. He will be wise, however, if he recommend Messrs. Savory and Moore to adopt a quieter style of handbill; equally so, if he suppress his name from the diet tables of the Hospital for Diseases of the Chest. At that Hospital he is an officer, a Physician, not mere Dr. Dobell; and I hope he will take this hint as to when and why one should preserve the anonymous. I am, &c.

London, August 24. MEDICUS.

"THE 'FORTY OUNCES OF SOLIDS' THEORY AND THE PANCREATIC EMULSION."

[To the Editor of the Medical Times and Gazette.]

SIR,—In your impression of August 17 I observe, in happy juxtaposition, two letters, the one signed "Medicus," the other "A Hospital Physician." The first is mainly devoted to an exposition of the grand *carte de diner* of Dr. Dobell, with the pancreatic emulsion of Messrs. Savory and Moore by way of dessert; the second recommends a diet which by many would be thought only suitable to an anchorite.

Now, I have never had the advantage of attending at the "Royal Hospital for Diseases of the Chest," including Affections of the Heart and Great Vessels—(by the way, why we should be reminded, *en parenthèse*, that the chest contains the heart and great vessels, is not very clear)—but were I to look in at the out-patients' room, one of these fine mornings, I should be quite prepared to see it crowded with the portly forms of a number of London draymen, porters, footmen, etc., with a proportional number of cooks, kitchenmaids, and other specimens of the "area belle," all as plump, blooming, and buxom as "forty ounces of solids," mulcified with twenty ounces of milk, and the whole washed down with "either half a pint of port, sherry, or Marsala; or one pint of Burgundy, claret, or other similar wine; or one pint of good ale or stout; or a quarter of a pint of rum, whisky, or brandy, diluted," etc., ought to be pretty sure to make them.

If this should prove to be the case, I should be compelled, by an inexorable logic, to ferret out the garret where the "Hospital Physician" hides his lank figure, starving upon fifteen or even twelve ounces of solids per diem, which meagre fare he still further dilutes with such "thin stuff" as claret, hock, or moselle! It is true that this gentleman reports himself as weighing thirteen and a half stones; but can you believe it? If the poor consumptive at the "Royal Hospital" consumes forty ounces of solids per diem, with twenty ounces of milk, topped up with no meagre allowance of wine, ale, or spirits, and yet, I perceive, occasionally dies, how believe the Hospital Physician's declaration that he keeps up thirteen stone and a half in health on fifteen ounces only? There is some mistake, Sir;

and were I fortunate enough to drop upon this individual in his lair, I believe I should find him resembling Shakspeare's beggarly apothecary—his lank sides and shrunken shanks enveloped to his heels with ample skirts to hide his leanness. What sort of diet tables this anchorite would distribute to the out-patients at *his* Hospital I know not; but of this you may be certain, that were the diet itself distributed in the out-patients' room respectively of Dr. Dobell's "Royal Hospital" and of that unfortunate place where the "Hospital Physician" "presides o'er the sombre scene," I know to which *I* should repair when I felt myself becoming a little consumptive. In place of the jovial appearance of things at the Royal Hospital, the latter room would present, I warrant, a beggarly account of empty benches, with only here and there a gaunt and ghost-like figure who might have come there out of a kind of ghastly derision to do honour to his lean prototype and preceptor.

For myself, being Physician to only a provincial Hospital in a "mixed agricultural, mining, and manufacturing district," I have only the average human animal to experiment upon, dietetically or otherwise, and thus seldom come across these consumptive "Jeames de la Plushes" and their feminine congeners—the copyists, we are told, in dress, diet, and dignity, of the "bloated aristocrats" of the metropolis whom they pretend to serve, so that I have but meagre experience of the effect of the forty ounces of carbo-hydrates, etc., with the addition of the twenty ounces of milk, washed down, etc., with port, Burgundy, claret, stout, or spirits. Why, Sir, the stingy governors of our Hospital, although at this day they possess more than half a hundred thousand pounds in the funds, only allow the poor creatures who come within their scant charity some three or four ounces of cooked meat, half a pound of potatoes or other vegetables, and fourteen ounces of bread daily, with a modicum of tea, milk, and butter to make such "poor stuff" palatable. True, we are told that we may order champagne if we like, but then we have a wholesome dread of the stern looks of the county dons at the quarterly meeting before our eyes, and—we don't. Yet, Sir, strange to say, our patients are often silly enough to get fat upon this meagre fare, and what is stranger still is that our consumptives and others with diseases of the chest ("including the heart and great vessels"), such as old-standing bronchitis, emphysema, asthma, etc., generally positively refuse to consume the whole of this miserly diet. Judge, then, of their stare of surprise if, following the lead of Dr. Dobell, we were to offer them, say, six ounces of partridge or pheasant, with three ounces of Findhorn haddock or kippered herring, to follow a dinner of eight ounces of cooked meat, and ask them to wash it all down with half a pint of port or a whole one of Burgundy.

Again, we really do find that here, in the wilds of ——shire, men, and even women, differ in size and weight and, as we believe, in capacity of stomach also; so that, try as we may, we actually cannot make them consume the same allowance of food all round. Even our consumptives, many of them, will not take more than a sixth part of Dr. Dobell's "Table I., Carbo-hydrates." Then, as regards stimulants, their tastes not having been perverted by serving the "bloated aristocracy," they are foolish enough to prefer the beer or porter of the establishment to all the Amontillado, Château Margaux, Château d'Yquem, or "other similar wine" we may offer them.

Again, Table III. of Dr. Dobell's handbills—fluid diet—directs that, after each dose of milk, a teaspoonful of "*pancreatic emulsion*," "*the* new remedial agent in consumption, originated by Dr. Dobell," as Messrs. Savory and Moore have it, should be taken, doubtless in order to supply a certain amount of mucilage and fat of which the said fluid diet may be deficient. And yet I opine that ten or twelve ounces of milk taken six times in the twenty-four hours—in all from sixty to seventy-two ounces, the quantity ordered in the table—must contain a tolerable quantity of fat; at least, so I learn from such tables as those of Dr. Lyon Playfair now before me. Good milk contains, he says, something like 3·5 per cent. of fat, giving, in seventy-two ounces, nearly three ounces of pure fat per diem—quite sufficient, in my humble judgment (*if digested*), for all the wants of the system in that line, seeing that milk is Nature's special food, and if she has not arranged the proportion of its ingredients in proper order, why, all I can say is, she ought to have done.

Nevertheless, we too, Sir, in this out-of-the-way part of the country, do occasionally use an emulsion of fat, and find it very useful in cases where the cod-liver oil is not well borne. I will not at present disclose its exact composition, because it may become famous, and then it would possibly be advisable to give the receipt to some one favoured chemist, instead of blabbing the secret to the whole Profession. But I may say, without betraying confidence, that animal fat is mulcified by means of an alkali, with essences, etc. ("very costly"), to prevent it from going rancid and to give it flavour. This rough and, as yet, rude imitation has already operated so well in some cases where fat was indicated and cod-liver oil not well borne, that you may possibly hear something further on the subject. Only at present will I add that, as we do not see what effect the pancreatic juice can have upon fats, out of the body, other than what is produced by its alkaline reaction, we use neither the substance nor the name for our crude imitation of the "genuine article," the preparation of which is at present such an occult art and mystery, that (we have Dr. Dobell's word for it) "he has not seen any pancreatic preparations that could be relied upon except Messrs. Savory and Moore's" (see advertisement).

The few facts narrated above cause me to doubt whether the "forty ounces of solids plan" for the out-patients of a Hospital (although Royal) for consumptives is not a misfit after all. May it not be that these tables were originally intended for a class of patients to whom such things as game, claret, and Burgundy are practically better known than to the sick poor of the metropolis? And may they not have been stolen by some Puck-like spirit and distributed amongst these poor creatures in fiendish derision at their sordid condition? I can think of no other solution of the anomaly.

But to return at last to our meagre friend, the "Hospital Physician." Longing, as creatures of flesh must, that the forty ounces of solids, twenty ounces of milk, and pint of Burgundy theory were the true one for consumptive patients, I yet find that dire experience leans me towards the meagre fare of "fifteen ounces, sometimes even twelve." I, like the "Hospital Physician," have maintained the same weight—ten stone four pounds (being only a little one)—for thirty-five years upon something like an egg and a little toast for breakfast, three or four ounces of meat, with a small quantity of bread and good allowance of vegetables, with an occasional slice of pudding at dinner, four cups of tea or coffee, two glasses of beer, and two or three glasses of hock or claret (the latter very occasionally exchanged for brandy-and-water under the name of sherry) to wash it all down with. Moreover, I find that if I eat much more than this under the mistaken idea of increasing my bodily substance, Nature demurs at once, and, by refusing to take even the regular quantity for some days after, reduces me, *pro tem.*, below my average standard. Doubtless this may be all wrong, and yet, like the "Hospital Physician," I have a habit of feeling very well with it, and go through much the same amount of labour, bodily and mental, as he describes, not omitting the five or six hours' brain work in the evening. Moreover, if the experience of nearly forty years amongst persons of all classes goes for anything, I may state my conviction that there are thousands upon thousands of hard-working officials and professional and other educated men and women who do well upon this meagre fare.

There must be a screw loose, Sir, somewhere when different observers arrive at such different results from observation of the same facts. But, as I have already occupied too much of your valuable space, I will leave others to reconcile the "Directions for Dr. Dobell's Patients, Tables I. and B." (including the forty ounces of solids, with twenty of milk, and pint of Burgundy), with the report of the meagre fare of a "Hospital Physician," and of your obedient servant,

August 27. A Provincial Hospital Physician.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.

We have received the following letter in connexion with the above institution:

To the Chairman of Council, Council, and Governors of the Royal Hospital for Diseases of the Chest, City-road.

Gentlemen,—We earnestly regret to express to you our united feeling that existing circumstances render it impossible for us to continue in the discharge of our duties as Medical officers of the Royal Hospital for Diseases of the Chest.

The anomalous position of Dr. Dobell as Honorary Secretary as well as Physician, his assumption of authority, and his spirit of interference, would alone render our conti-

nuance in office incompatible with independence of action and self-respect. But his practice of issuing diet bills bearing his own name and that of the Hospital, one of which recommends a Medical preparation originated by him (Pancreatic Emulsion), and the dispensing of the same Medical preparation from the Hospital in pots bearing his name on the label, are still more decisively objectionable.

We do not wish to express an opinion whether such practice is or is not in accordance with the intentions and principles of a public charity, or to question the propriety of applying its funds to any such purpose: it is enough for us to know that the practice is of a nature to call forth the most severe condemnation from those members of our Profession whose good-will and esteem we most value.

Feeling therefore satisfied that we cannot continue to work in harmony with Dr. Dobell, and assured of what is expected from us by the Profession, we find it to be the most direct and honourable course to place our resignation in your hands.

We cannot, however, take a step which may dissever us from an institution with which our names have been honourably connected during the most active years of our Professional life without offering to you, the Governors and Council, our sincere respects and our warmest thanks for the long confidence you have reposed in us.

That you may be put to the least possible inconvenience, we shall have pleasure in holding office until the appointment of our successors, if agreeable to you.

We have the honour to remain, gentlemen,

Your most obedient servants,

Benjamin W. Richardson, M.D., F.R.S.,
12, Hinde-street, W.
Arthur Leared, M.D., M.R.I.A.,
12, Old Burlington-street, W.
Josiah T. Powell, M.D., M.R.C.S.,
347, City-road, E.C.

London, August 22, 1867.

ARMY MEDICAL DEPARTMENT.

[To the Editor of the Medical Times and Gazette.]

The Director-General presents his compliments to the editor of the *Medical Times and Gazette*, and begs he will be so good as to publish the enclosed list of candidates for her Majesty's British Medical Service who were successful at the competitive examination held at Chelsea Hospital in August, 1867.

Army Medical Department, August 22.

Maximum Number of Marks obtainable, 3400; *Minimum required to Pass*, 1034.

Order of merit.	Names.	Number of marks.	Order of merit.	Names.	Number of marks.
1.	J. D. Corbett	2390	23.	J. H. Hunter	1694
2.	R. de E. C. Corbett	2357		H. Morgan	1694
3.	H. K. Maclachlan	2297	25.	J. Riddick	1682
4.	C. F. Pollock	2245	26.	W. F. Bennett	1676
5.	W. H. Macnamara	2182	27.	D. H. B. Anderson	1640
6.	R. T. Scott	2161	28.	J. A. Anderson	1616
7.	D. M'Ewen	2095	29.	G. A. Rae	1610
8.	G. Hare	2077	30.	F. G. Steward	1595
9.	G. F. Sankey	2054	31.	J. D. Gumming	1578
10.	R. A. Cuthbertson	2047	32.	E. Fitzgerald	1550
11.	T. A. J. Cocksedge	2039	33.	J. D. Crowe	1545
12.	*Count* C. Wollowicz	2036	34.	J. J. O'Grandy	1517
13.	F. Lyons	2022	35.	W. O. Wilson	1514
14.	J. G. Randall	1967	36.	G. Shaw	1508
15.	R. Macmullen	1876	37.	H. Jagoe	1460
16.	Mark Anthony	1870	38.	R. Morgan	1402
17.	M. M. Gallwey	1840	39.	D. H. W. Heather	1395
18.	G. W. Barroll	1796	40.	R. F. Maunsell	1370
19.	T. H. M. Clarke	1795	41.	J. H. Waylen	1340
20.	S. K. Cotter	1778	42.	T. Kingston	1313
21.	J. Barry	1755	43.	G. S. Popham	1294
22.	J. R. Leake	1712	44.	A. Anderson	1213

[To the Editor of the Medical Times and Gazette.]

The Military Secretary, India Office, presents his compliments to the editor of the *Medical Times and Gazette*, and begs to enclose a list of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination at Chelsea in February, 1867, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley.

India Office, August 22.

Indian Medical Service.—Maximum 6900; *minimum* 2200.

Name.	Studied at	Total number of marks.
W. Macrae	Aberdeen	5893
H. Summerhayes	London	5080
G. A. Maconachie	Aberdeen	4833
R. Aldren	Edinburgh	4645
T. J. M'Gann	Edinburgh, Dublin	4520
G. Bainbridge	England	4463
J. Arnott	Glasgow	4223
R. H. Batty	London, Ireland	4183
W. F. Knapp	London	4158
J. H. Ritchie	Ireland	4065
A. J. Leggatt	London	4005
H. De Tatham	London	3968
J. Shillito	London, St. Andrews	3965
J. Smith	Edinburgh	3710
J. M'Alister	Glasgow	3695
D. A. Kerr	Aberdeen	3405
A. L. Hackett	Edinburgh	3360
J. R. C. Lowry	Dublin	3310
D. B. Long	Edinburgh	3200
H. J. Hazlett	Ireland	3198
D. R. Thompson	Madras, St. Andrews	3105
R. V. Power	Ireland, Edinburgh	3100
S. B. Haliday	London, Edinburgh	2705
A. M'Clorg	Dublin	2625
B. Keelan	Ireland	2295

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Wednesday, May 1.

Mr. Henry Smith, President.

A paper was read by Dr. Arthur Leared, on

THE SOUNDS OF THE HEART IN THEIR RELATION TO PATHOLOGY.

Dr. Leared commenced by stating that the normal and abnormal sounds formed by the circulation of the blood are more closely allied in their causes than is generally supposed. He added that it would be granted that whatever explanation of the normal sounds fits into and accords most clearly and in the larger number of instances with the explanation of their abnormal changes, is most worthy of acceptance; and, conversely, that any theory which is incapable of adaptation in a salient respect should be rejected. Most theorists have been compelled to ignore any connexion between the two classes of sounds, on account of incompatibility in their explanation of the respective causes. There are certain broad facts in which, if physiology and pathology do not agree, there must be an absence of truth on one side or on the other. *De minimis lex non curat*; and he proposed, as sufficient for his purpose, to deal with the more important points of cardiac diagnosis, and to test the truth of prevailing theories of the sounds of the heart by investigating the connexion which exists between the sounds issuing from the organ in health and in disease. He affirmed that the sounds of the heart, in common with all the sounds formed by the circulation, mainly emanate from the blood itself. They are not essentially due to the vibration of valves, or to the tension of muscles; and even if these causes contribute in a minor degree to form the sounds, it does not affect the argument. If the blood circulated without any rhythmic motion, no sound would be caused; but it is thrown into broken and impetuous currents by the action of the heart, and sounds are thereby necessarily produced. Besides rhythmic motions, certain conditions are requisite to produce the normal heart sounds. If all these conditions be not present, the sounds will be abnormal. Both sounds of the heart are formed by the blood itself in the commencement of the aorta and pulmonary artery, and are closely allied in their mechanism. Dr. Leared in part quoted from and in part referred to his published writings on this subject. (a)

(a) "On the Sounds caused by the Circulation of the Blood." Pamphlet. John Churchill and Sons. 1860.

The first sound he maintained to be caused by the blood in the ventricles coming into forcible contact with that in the great vessels, which had just attained a state of momentary repose. The second sound he alleged to be due to falling back of the blood in the outlet vessels, and its arrest by the valves—not, however, by the vibration of the valves, but on the same principle as the sound is formed in a tube through which water is flowing from a cistern, when its flow is suddenly arrested by turning a cock. Four conditions are necessary for the production of the perfect first sound. 1. Sufficient viscidity of the blood. 2. Sufficient pressure upon the blood. 3. Sufficient force in the circulation. 4. The absence of obstruction at the outlets of the heart. If the first condition—viscidity—be wanting, the blowing sound so often heard in anæmia is substituted. If the second be deficient, the first sound also changes to a murmur, as happens in cases of great hæmorrhage, by which the pressure on the remaining blood is much diminished. If the third be deficient, the first sound simply becomes proportionately faint, as proved by the want of sound in fevers when the power of the heart is much impaired. The fourth condition is resolvable into the second, because any obstruction at the mouth of the aorta or pulmonary artery must cause diminished pressure beyond the obstruction. For the production of the second sound less force is requisite, and for this reason, when the heart becomes feeble, the first sound becomes impaired much sooner than the second. Viscidity is not a necessary condition; hence in anæmia the second sound never degenerates into murmur like the first. Murmurs in the heart are nothing more than modified shock or normal sounds, and in their causes all the sounds formed by the circulation of the blood are closely correlated. And since certain conditions are requisite for the formation of a normal or perfect sound, Dr. Leared proposes the term "degenerate" to express any imperfection which would constitute it an abnormal sound. Dr. Leared next dwelt upon an inaccuracy of expression used by Medical authors. Speaking of murmurs in the heart, they commonly say, "there was a *bruit de soufflet* with the first or the second sound," as the case may be. This arises out of the false conclusion that normal sounds have their origin in something different from that which produces murmurs. But in that case a sound emanating from anything but the blood itself, whether muscle or valve, would invariably be heard coincidently with a murmur—in other words, with an admitted blood sound—except when the murmur is loud enough to drown the other sound—a rare occurrence When the subject is thus approached, an incongruity is perceived, and, to elude this, the word "with," when it should be "instead of," is employed. For the normal sounds are not generally accompanied by, but substituted by murmurs. In most cases in which simple murmurs are heard immediately over the left side of the heart, corresponding faint normal sounds may be heard by shifting the position of the stethoscope slightly, so as to place it over the right side of the heart. In considering the question whether a normal sound is supplanted or merely overpowered by the loudness of the murmur, the duplicate origin of the sounds must be kept in view. In making an examination the stethoscope must be fairly placed over the cavity from which the murmur proceeds, and not at the same time partly over the adjoining cavity. Dr. Leared maintained that other changes—besides that of the first sound into murmur—as of its intensity, duration, and pitch, are better accounted for by the present explanation than by any other. They are due to variations in the force with which the blood is impelled, or else in its pressure or viscidity; while by no other means can the complete degeneration of the sound into a murmur of moderate loudness be satisfactorily explained. Viscidity of the blood has been stated to be one of the essentials for the formation of the normal first sound, and, what is very significant, not of the second sound. If water instead of blood circulated in the body, no such sound would ever be heard. The first sound would always be a murmur, while the second would be the same as if caused by blood. It is on this principle that the first sound so commonly degenerates into a murmur in anæmia. The second sound, however, never in this disease undergoes the same change, because at the time of its formation the blood in the great outlet vessels is separated from that in the ventricles by closed valves. The formation of sonorous currents in the intermingling blood owing to its increased mobility is thus prevented. Dr. Leared added, when the advocates of other theories of the normal sounds of the heart afford by them an intelligible explanation of these everyday facts—assuming the heart and its great vessels to be healthy, the blood being less viscid than natural, the first sound is prone to change into a murmur, while the second sound never so changes—he will be prepared to question the truth of the present theory. Increase of viscidity of the blood is also probably attended by modification of the first sound, and the result of experiments out of the body shows that this would tend to make the sound more prolonged and less loud than natural. In typhus fever fibrin exists in excess in the blood, and the impairment of the first sound of the heart so often observed in this disease may be in part due to this cause. Diminished pressure, by which is implied that the total quantity of blood in the heart and arteries is less than natural, also causes the first sound to degenerate. Sufficient friction to induce murmur is then also formed between the blood issuing in a less body than natural from the ventricles and the blood in the great vessels. Nothing is more conclusive of this position than the fact that one effect of excessive hæmorrhage is to transform the first sound into a murmur. Dr. Marshall Hall's experiments proved that this transformation occurs in dogs, and it may be sometimes observed in the human subject, as in great loss of blood after parturition. Impairment in the quantity of blood, then, produces the same result as impairment of its quality; and Dr. Leared again challenges the advocates of the origin of the first sound from the structures of the heart itself to explain by their theories the change, in this instance, of the normal sound into a low-pitched murmur. In certain cases murmurs are heard equally loud at the base and at the apex of the heart in which, after death, the mitral valve is alone found diseased; whereas, according to theory, the aortic orifice ought to be also diseased. Dr. Leared thinks this may be explained by the diminished volume of blood sent by the ventricle into the aorta in consequence of mitral regurgitation. By this means the aorta would be, in relation to the blood, sent into it in the same position as if a great loss of blood by hæmorrhage had occurred. Thus the first sound would degenerate into a murmur on the principles explained, and a double murmur, one being regurgitant and the other direct, would ensue. Sufficient force in the circulation is so necessary a condition that whatever theory of the sound is adopted, it must always be a constant factor. Loss of force implies loss of velocity in the blood, but this does not cause degeneration of the first sound; it merely becomes less loud, as in the case of typhus fever. Absence of obstruction at the outlets of the great vessels is the last condition to be considered. This condition is closely allied to one previously considered—namely, that there shall be sufficient pressure on the blood, for an obstruction from atheroma or contraction of the vessel produces diminished pressure beyond it, and then currents are permitted by which the integrity of the shock or natural sound is destroyed. Conversely, any considerable dilatation of the aorta is a cause of lessened pressure, because the proper relation between the blood which it contains and that which it receives from the ventricle is altered. Hence dilatation is a not unfrequent cause of murmur. The production of murmur from diminished pressure is easily illustrated by experiment. Let one end of an india-rubber tube of an inch diameter, and of moderate length, be connected in a perpendicular manner with a cistern containing water; and let the other end be also inserted into a vessel of water. As soon as any air that may have been contained in the tube has been expelled, the water will flow through it quite noiselessly. If the tube be now somewhat compressed in the middle, and the ear be applied below the point of compression, a murmur will be heard. It will be found also that the murmur is louder here than at any other part of the tube, and therefore formed in this position. But if the murmur be not due to vibration of the compressed part of the tube, why should it be thus localised? Because the velocity of the water as it passes through the obstruction is proportionate to the pressure upon it—in other words, to the length of the column above it. Here it must be explained that although, if the water be at rest, the pressure upon it would go on increasing in the ratio of the length of the tube, notwithstanding the obstruction, the case is different when the water is in motion. Now, if a tube be obstructed to the extent of half its area, it is manifest that, since it is also full below the obstruction, the more rapidly moving water from above will be driven forcibly through the more sluggish stream below. And at the spot where this first occurs—namely, immediately below the obstruction—the murmur will be most intense; for as this point is receded from, the velocity of the two streams becomes

equalised, and the friction between them, which is the cause of sound, vanishes. Doubling or reduplication of the heart's sounds is an obscure phenomenon, of which no satisfactory explanation has been as yet offered. Dr. Leared detailed the various explanations that have been given, together with the objections to them. He has often noticed that when a tap from which water is flowing is suddenly turned, the jarring noise which results is not merely single, as previously described, but sometimes double, from a rebound of the descending fluid and a second concussion. He thinks it possible, therefore, that reduplication of the second sound of the heart may be caused in this way.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, APRIL 5, 1867.

Dr. FULLER, President, in the Chair.

MR. HOLMES related to the Society two cases of

SUBPERIOSTEAL RESECTION OF THE TIBIA,

which had been undertaken in acute periosteal abscess, but had failed, and amputation had become necessary. The patient, a boy, aged 7, had been run over by a cab six months before his admission, and the wound in the leg had never healed, but it was not till seven days before his admission that urgent symptoms commenced (pain, vomiting, rigors, swelling, etc.). On admission (Feb. 4, 1867) there was a good deal of matter around the head of the tibia, and extending close up to the knee-joint. The swelling was freely incised, and as the size of the joint continued to increase it was tapped, and a good deal of sero-purulent fluid, followed by pure pus, was let out. The disease, however, continued to extend, and on February 21 it was decided, as the tibia was exposed in its whole extent for a considerable distance, to attempt to remove the whole shaft from its epiphyses, trusting that thus the limb might be preserved, as had occurred in a former case under Mr. Holmes's care. The bone was accordingly divided with a chain saw, and an attempt was made to draw it away from the epiphysial lines, but this attempt was unsuccesful, the connexion between the shaft and epiphyses being as firm as natural. Accordingly, only the exposed portion of the shaft, a length of about 4 inches, was removed. It was hoped that the portions of the shaft left behind would separate in a few days from the epiphysial lines. This, however, did not occur, and the boy suffered so much pain and distress from the abscess in the knee-joint, which had been laid open pretty freely, and was so much pulled down by the profuse discharge, that it was judged unwise to persist in the attempt to save the limb, which was accordingly amputated on March 13. The immediate result of the amputation was to restore rest and appetite. He began to improve visibly in health, and the stump went on very well. Convalescence was interrupted on the fifteenth day after the amputation, when the stump was nearly healed, by a feverish attack (but without rigors or vomiting), followed by pain in the right hypochondrium and side of the chest, and the ordinary signs of pleuropneumonia were detected there, and some slight dulness persisted up to the date of his discharge. He was sent to Margate. Mr. Holmes remarked on this case that it was the third in which he had removed either the whole or a large part of the shaft of one of the bones in acute periosteal abscess. The first case was reported in the *Lancet*, March 31, 1865. The whole shaft of the tibia was removed at an early period of an attack of diffuse periosteal abscess, and the child recovered, with a very firm though shortened limb. In the second case a large part of the shaft of the fibula was removed in the second stage of the disease after the old shaft had become embedded in new bone. The child recovered, but the bone has not up to the present time been regenerated. Still the limb is perfectly sound and useful. This case will be published in the next volume of the Pathological Society's *Transactions*. In the present case there was a most active reproduction of new bone, and if the abscess in the knee had not prevented the preservation of the limb until the remaining portions of the tibia had become loose, success would most probably have been obtained. Our experience of this operation is as yet too limited to enable us to speak positively about it; but one thing at any rate may be said—viz., that when in a child an operation becomes necessary, in acute periostitis of a long bone favourably situated (such as the tibia, fibula, radius, or ulna), the subperiosteal resection of the bone is an experiment worth trying in preference to amputation.

MR. HOLMES also gave a case of

REMOVAL OF A TUMOUR FROM THE LARYNX BY EXTERNAL INCISION.

The patient, a girl, 8 years of age, had been long under treatment for aphonia complicated with occasional attacks of sorethroat, and latterly with spasmodic dyspnœa. Persevering attempts had been made, but ineffectually, to bring the parts into sight with the laryngoscope. Although the child was most docile and patient, yet the narrowness of the fauces, and the abundant secretion which they poured out when touched, entirely precluded success in laryngoscopy. The epiglottis could be both seen and felt to be healthy. Various local and general methods of treatment were tried, but with no benefit whatever, and at length the attacks of dyspnœa became so frequent and alarming that the child was admitted into the Hospital in case tracheotomy should be required. When the parents, however, understood that an operation was in prospect, they became alarmed and insisted on removing the child—a step which nearly cost her her life, as she was seized with such alarming dyspnœa next night that she was thought to be dead, and they were then glad to bring her back, requesting that anything might be done to save her life. The same night the dyspnœa returned in a very alarming manner, and Mr. Holmes opened the trachea, just above the thyroid body. As the symptoms were all consistent with the presence of a polypus in the larynx, it was decided now to undertake an exploratory operation, in order to remove such a growth if present. The motives for this proceeding were these:—The symptoms of acute dyspnœa, coming on in paroxysms, with complete remissions, were exactly those which might be produced by a floating growth, which would at all times prevent the exact approximation of the cords, and so produce aphonia, and might occasionally fall into the glottis, producing spasm of the muscles of the cords. Such growths have been found exactly in these cases. The steady increase of the symptoms, in spite of many months of treatment, and the perfect health of the child in all other respects, seemed also more consistent with the idea of tumour than of chronic laryngitis. If the symptoms depended on chronic laryngitis, the analogy of other cases which have occurred at this Hospital made it probable that the child would have to wear the tube permanently; while, if there were a tumour, and it were successfully removed, natural breathing might be regained. Finally, the operation did not seem to involve much risk. It was accordingly performed about a week after the first tracheotomy. A tube was first introduced into the trachea, with a cleft in its upper wall, so that the knife could be carried upwards from the wound in the trachea. The parts were carefully dissected, so as to expose the thyroid cartilages, the hyoid bone, and the windpipe down to the part at which it had been opened. When the bleeding so caused had ceased, which it did without much blood being admitted into the trachea, the latter was fixed by a sharp hook on either side, and a probe-pointed knife carried up through the middle line of the cricoid and thyroid cartilages into the thyrohyoid membrane. The bleeding was very free, but the blood was prevented from entering the lungs in any large quantity by a sponge stuffed into the larynx above the trachea tube. When the bleeding had subsided, the child was again brought fully under the influence of chloroform, and the parts drawn asunder with sharp hooks. This gave a complete view of the vocal cords, and of the ventricle on either side. Springing from the false vocal cord on the right side, and partially filling the ventricle, was a pendulous body about the size of a pea. This was removed close down to the cord. The rest of the mucous membrane was sponged, and carefully examined. It was granular and thickened, but there were no other distinct growths. The growth removed was examined microscopically, and consisted entirely of epithelium. The operation was thus successful so far, and the patient survived, but she has not yet recovered the power either of speaking or of breathing without the tube. The glottis is perfectly free, and a large instrument can be passed through it from the wound in the trachea. Attempts have been made at various times to dispense with the tube, but they have invariably resulted in attacks of dyspnœa, which have necessitated its reintroduction. An interesting feature in the case is that the child suffered some time after the operation with many of the symptoms of pyæmia—viz., constant nocturnal rise of temperature, rigors, yellow skin, effusion into both knee-joints, pericardial murmur, broncho-pneumonia,

and great wasting of flesh. These symptoms, however, were much more chronic than in ordinary attacks of pyæmia, and the child is now in perfect health and in good condition. It is likely that she will have to wear the tube permanently.

OBITUARY.

ROBERT SHEKLETON, ESQ., F.R.C.S.I.

We regret to announce the death of the above-named gentleman, which took place at his residence, 59, Upper Leeson-street, Dublin, on July 26, in the 79th year of his age. Dr. Shekleton was a Licentiate in Medicine of the University of Dublin (1819), and a Fellow of the Royal College of Surgeons in Ireland, his Fellowship bearing date so far back as 1816. He held the important office of Master of the Dublin Lying-in Hospital from 1847 to 1854, his mastership intervening between that of the late Dr. Johnson and that of Dr. M'Clintock. He also formerly filled the office of President of the Dublin Obstetrical Society, and that of Chairman of the Midwifery Court of Examiners in the Irish College of Surgeons. He enjoyed half-pay as retired Surgeon of H.M. 51st Regiment. He was for many years in very respectable Midwifery practice in Dublin, but had been compelled, not very long after the expiration of his Mastership, in consequence of ill-health, to withdraw from the exercise of his profession. He wrote but little, a paper on the Cæsarian section, to be found in the tenth volume of the *Dublin Quarterly Journal of Medical Science*, p. 287, being probably his only contribution to Medical literature. He was, however, highly respected by his Professional brethren, both as a gentleman and as a sound Practitioner.

NEW BOOKS, WITH SHORT CRITIQUES.

British Guano. By Francis Taylor, M.R.C.S. London: John Churchill and Sons. Pp. 23.

*** The importance of keeping our sewage from rivers, and converting it from a deleterious agent into one powerful for good as a manure, is every day becoming more and more apparent. The other day a meeting at Stroud was held, to see the good effects of saving up sewage, as exemplified by beautiful corn fields. Mr. Taylor has invented a most ingenious apparatus for preserving night soil, preventing the spread of all diseases propagated by it, and at the same time completely deodorising it. Its use would be attended with the most valuable results.

Lectures on Clinical Medicine, delivered at the Hôtel-Dieu, Paris, by A. Trousseau, Professor of Clinical Medicine in the Faculty of Medicine, Paris, etc., etc. Translated and edited by P. Victor Bazire, M.D. London and Paris, etc. Part III. London: Hardwicke. Pp. 712.

*** Since the last part of this work was published, both author and translator have passed away; the former ripe in years and full of glory, the latter in the prime of his manhood. The author lived not long after his work was published; the editor only saw the first volume through the press. Of the work itself we need not speak; its value is everywhere known and recognised. Of the translation, we shall only say that we hope the subsequent volumes will bear the same stamp of care and accuracy as the first.

The Nervous System. By Ludovic Hirschfeld, Doctor of Medicine in the Universities of Paris and Warsaw, Professor of Anatomy, Warsaw. Edited in English by A. M. Macdougall, F.R.C.S. With coloured lithographs designed by J. B. Léveillé. Part II., four plates. London: John Churchill and Sons.

*** The value of this work in its original guise is too well known to anatomists to need any praise here. The dissections are most exquisite, the drawings perfect, supplying not only a guide to the anatomy of the nervous system, but also to that of the parts which surround it. The first work on the subject, we gladly welcome its appearance in an English dress, which Mr. Macdougall has been skilful enough to supply in the most fitting manner.

A Manual of Pharmacodynamics. By Richard Hughes, L.R.C.P. Edin., etc. London: Henry Turner. Pp. 551.

*** In case our readers should be inclined to waste their money, let them know that this is a manual of homœopathy.

Auvergne: its Thermo-Mineral Springs, Climate, and Scenery. By R. Cross, M.D. Ed. and Heidel., F.R.C.P., etc. London: Hardwicke. Pp. 151.

*** A small quarto volume, elegantly got up and illustrated, describing the Medical aspects of one of the most interesting regions in Europe. There volcanic action prevailed till a comparatively late period, and there also, as might be expected, mineral springs abound. Dr Cross's smart little volume, if it does not give all the information that could be desired of this region, so rarely frequented by Englishmen, will at least excite an interest only to be assuaged, if, indeed, that can be, by a visit to the country.

The Climate of the South of France, and its Varieties most suited for Invalids. By C. T. Williams, M.A., M.B. Oxon., Assistant-Physician to the Hospital for Consumption, Brompton. London: John Churchill and Sons. Pp. 99.

*** A useful little work for those—alas, too many—who are now thinking of betaking themselves to the south of Europe. Like a sensible man, Dr C. T. Williams (son of the well known authority on consumption, Dr. C. J. B. Williams) does not recommend any one spot in preference to all others. He says:—"The climate of the individual health resorts depends on their proximity to, or their distance from, the sea; the air of the places immediately on the coast is exciting, while that more inland is less stimulating and softer; and it is on these differences that the selection of the locality should be based." That short sentence contains the philosophy of health-hunting in the south of France, and north of Italy.

Sandown, Isle of Wight, as a Residence and as a Health Resort. By Henry Maund, M.D., M.R.C.S., etc. London: Walton. Pp. 64.

*** Dr. Maund points out a most important element in the healthy character of Sandown. The place is thoroughly drained, and not into the sea. At one time insufficiently supplied with water, there is now a superabundant supply. Considering how many otherwise desirable localities are spoiled by deficiencies in the above respects, Sandown, even apart from its other advantages, should take a high place as a health resort.

Report of the Pennsylvania Hospital for the Insane for 1866. By Dr. J. Kirklaide, Physician-in-Chief and Superintendent.

Annual Report of the Argyll District Asylum for the Insane, 1867. By Dr. Sibald.

Annual Report of the Belfast District Hospital for the Insane, 1867. By Dr. R. Stewart.

Medical Report of the Royal Lunatic Asylum of Aberdeen. By Dr. R. Jamieson.

*** So many asylum reports reach us, and the plans on which they are constructed are so varied, that it is often no easy task to eliminate the points of comparison which are of most Professional value. We are always most happy to receive them, but the authors would be well in each case to mark those passages to which they desire to draw our special attention, thereby greatly facilitating our task of catering for the public benefit. So much talent is every year expended on the drawing up of these reports, that a little extra trouble, which would both benefit the Medical public and ourselves, would be well expended. Each of the above reports is drawn up in a different fashion, the American being the most elaborate.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 22, 1867:—

George Mason, Guy's Hospital; Alfred Hollis, Middlesex Hospital; William Hooper Short, Charing-cross Hospital; Henry Shinglewood Taylor, Alton, Herts; Charles Peyton Moreton, 3, Bedford-street, W.C.

At the Competitive Examination, held on August 14, for the Prizes in Botany annually given by the Society of Apothecaries, the successful candidates were:—

First.—Henry Newell Martin, University College, London, a gold medal.
Second.—William Ashley Cox, St. George's Hospital and University of Edinburgh, a silver medal and a book.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Prance, C. R., M.D., M.R.C.P.L., has been appointed Physician to the South Devon and East Cornwall Hospital.

Rhodes, C., M.D., M.R.C.S., L.S.A., has been appointed Surgeon to the Weymouth and Dorset County Royal Eye Infirmary.

Richardson, William Edmund, M.R.C.S. Eng., has been appointed Physician's Assistant at the Manchester Royal Infirmary.

BIRTHS.

Baines.—On August 20, at Woodmancote, Dursley, the wife of C. W. Baines, M.D., of a daughter.

Biggs.—On August 23, at Springfield, Tooting, the wife of J. S. Biggs, M.D., of a daughter.

England.—On August 11, at Winchester, the wife of Dr. England, of a son.

Gooding.—On August 21, at Rexley-place, Greenwich, the wife of R. Gooding, B.A., M.B., prematurely, of a daughter, still born.

Mercer.—On August 19, at Karlshof, near Darmstadt, the wife of Dr. Mercer, of a son.

Playfair.—On August 24, at 5, Curzon-street, Mayfair, the wife of Dr. W. S. Playfair, of a son.

Powell.—On August 23, at 347, City-road, Islington, the wife of J. T. Powell, M.D., of a daughter.

Redfern.—On August 24, at 4, Lower-crescent, Belfast, the wife of P. Redfern, M.D. Lond., of a daughter.

MARRIAGES.

Baker—Haig.—On August 19, at Marylebone parish church, J. C. Baker, M.R.C.S., Medical superintendent H.M. Persian Telegraph Establishment, to H. A. M. P. Haig, widow of the late W. Haig, Esq., and only child of the late J. Dick, Esq.

Cheke—Channer.—On August 22, at the parish church, Clifton, G. N. Cheke Surgeon H.M. Bengal Army, to Susan, second daughter of Colonel G. Channer, late Bengal Artillery. No cards.

Crowther—Pearson.—On August 20, at St. James's Parish Church, Congleton, E. L. Crowther, M.R.C.S.E., M.B., etc., to Elizabeth Rosaline, second and youngest surviving daughter of James Pearson, Esq., West House, Congleton.

Gimson—Allen.—On August 21, at Little Stambridge, T. S. Gimson, M.R.C.S., of 16, Grafton street, Fitzroy-square, to Elizabeth Fanny, daughter of W. T. Allen, Esq., of Little Stambridge-hall, Rochford, Essex. No cards.

SMITH—MACGREGOR.—On July 6, at St. George's Cathedral, Madras, W. A. Smith, M.D., H.M.'s Indian Army, to Janett, second daughter of Lieutenant-Colonel M. MacGregor, commanding Lord Napier's Body Guard.

DEATHS.

DUNLOP, J., M.D., Staff Surgeon, at Up Park Camp, Jamaica, on July 30, aged 44.

DYKE, T., M.D., of Thomaston-street, Liverpool, on August 16, aged 36.

PEARCE, F. D., M.R.C.S.E., of Kingsbridge, Devon, on August 8.

VACANCIES.

BANFFSHIRE DISTRICT LUNATIC ASYLUM.—Resident Medical Officer.

CLONMEL LUNATIC ASYLUM.—Resident Medical Superintendent.

ENNIS LUNATIC ASYLUM.—Resident Medical Superintendent.

ENNISCORTHY LUNATIC ASYLUM.—Resident Medical Superinteudent.

MANCHESTER ROYAL INFIRMARY.—Physician's Assistant.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bangor and Beaumaris Union.—Mr. R. Thomas has resigned the Anglesey No. 2; area 12,078; population 4217; salary £75 per annum.

Barnsley Union.—Mr. M. T. Sadler has resigned the Darton District; area 9210; population 7321; salary £36 per annum.

Kendal Union.—Mr. Wm. Holme has resigned the Bowness District; area 34,158; population 5502; salary £40 per annum.

Peterborough Union.—Mr. C. Whitefield has resigned the Crowland District; area 20,850; population 4156; remuneration per case.

Wimborne and Cranborne Union.—Mr. S. R. Skinner has resigned the Fourth District; area 18,510; population 3033; salary £30 per annum.

APPOINTMENTS.

Clifton Union.—David Edward Bernard, M.R.C.S. Eng., L.R.C.P. Edin., to the Workhouse.

Ongar Union.—Nathaniel E. Cresswell, M.D., M.R.C.S. Eng., L.S.A., to the Second District.

Sheffield Union.—Thomas Leeds, M.R.C.S. Eng., L.S.A., to the Brightside East District.

Shipston-on-Stour Union.—Wm. R. Horniblow, M.D. Edin., M.R.C.S. Eng., L.S.A., to the Halford District.

Thame Union.—Cornelius F. Stovin, M.D. St. Andrews, L.R.C.S. Edin., L.R.C.P. Edin., L.M. Ediu., to the Waterperry District.

ROYAL COLLEGE OF SURGEONS.—The Museum and Library of this institution will be closed this day (Saturday), for one month, re-opening on Tuesday, October 1.

LEGION OF HONOUR.— On the Emperor's fête-day M. Claude Bernard and M. Husson were promoted to the grade of Commander; Professors Berthelot, Béhier, d'Archiac, and Béclard were made Officers. MM. Rousselin, Leudet, Hélie, Leroy, d'Etiolles, Belloc, and about twenty others, mostly Medical Officers of provincial Hospitals, were made Chevaliers.

THE LATE SIR WILLIAM LAWRENCE.—The will of Sir William Lawrence, F.R.S., Sergeant-Surgeon to the Queen, of Whitehall-place, was proved in the London Court on August 1, and the personalty sworn under £40,000. The executors and trustees appointed being his son, Sir James Trevor Lawrence, and his daughters, Elizabeth Louisa Lawrence and Mary Wilhelmina Lawrence; the son is the sole acting executor. The will, with two codicils, is beautifully written on note paper, and is dated November 13, 1856, and the codicils October, 1866, and February, 1867. Sir William died July 5, aged 84, and has left his books, manuscripts, and papers equally between his son and daughters; has bequeathed his jewellery, watches, plate, furniture, carriages, horses, &c., between his two daughters, and also his interest in his leasehold residence at Whitehall-place. He empowers his executors to lay out his Ealing-park estate for building purposes, and, together with all other his estate real and personal, to be held in trust, the proceeds thereof to be divided equally between his son and two daughters, whom he appoints residuary legatees.—*Illustrated London News.*

DEATH OF WILLIAM B. COSTELLO, M.D.—The author of the fragmentary "Encyclopædia of Surgery" had so long quitted the Professional society of London that he probably had passed out of the remembrance of many who may yet recollect the appearance of the first numbers of that work. Dr. Costello had during the latter years of his life withdrawn entirely from the practice of his profession, and had resided in Paris. He was born in Dublin in 1800. His Professional studies were partly prosecuted abroad, where he was a pupil of the great lithotritist, Baron Heurteloup, and on his return to England he practised with success the then new operation of lithotrity in London. We believe that he has the merit of being, if not the first, one of the first who performed the operation in this country. Dr. Costello was for some time proprietor of the Wyke House Asylum for the Insane, Brentford, and published an able paper on the "Reform and Management of Lunatic Asylums." He will be remembered, however, principally by his "Surgical Cyclopædia"—a work which only a man of talent and vast resources would ever have contemplated. The first part appeared in 1841, and twelve parts were all that he produced. Circumstances do not seem to have favoured the completion of the undertaking, and the author relinquished it. But the early numbers were of great promise. Dr. Costello died in Paris on the 15th inst.

CATTLE PLAGUE INQUIRY.— For the week ending August 24, one fresh outbreak has been reported—viz., at Low Esh, in Durham. One case of cattle plague is reported to have occurred during the week. The diseased animal was killed. There was one healthy animal slaughtered to prevent the spread of the disease. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,924, and 56,901 healthy cattle have been slaughtered to prevent the spread of the disease.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.—At a Council meeting held on Tuesday last, it was announced that 370 Graduates had joined the Association, and that among the honorary members were the Duke of Argyll, Professors Lyon Playfair, Bell, Macdonald, and Brown. It was thought better to defer any deputation to Mr. Disraeli or the Lord-Advocate until the end of December, but a strong hope was expressed that each graduate would make it a point to press the claim for the franchise on all M.P.'s whom he could influence. The question of the admission of future members by ballot was adjourned to the next meeting. Matters connected with the General Session, to be held on December 2 and 3, were considered, and papers were announced from Dr. Richardson, Professor Playfair, Drs. Day, Wynn Williams, Whitmore, Edwards Crisp, Procter, Powell, Bishop, and Sedgwick. Among the country members of the Council, who at great inconvenience attended the meeting, were Dr. Roden, of Kidderminster, Dr. Fayrer, of Henley-in-Arden, and Dr. MacIntyre, of Odiham.

AN ASYLUM FOR IDIOTS IN BIRMINGHAM.—An influential meeting of gentlemen was held on the 26th inst., George Dixon, Esq., M.P., chairman, at which the following resolution was passed:—"That a committee of ladies and gentlemen be formed with the view to the formation of an asylum for idiots for the Midland counties, on the basis of a private one at Knowle, conducted by a lady on the humane and intelligent principles adopted so successfully by Dr. Guggenbuhl in his home for the poor cretins amongst the Alps."

HEALTH OF SEAMEN.—An important Act passed during the last session of Parliament will come into operation on January 1 next. It is called the Merchant Shipping Act. Its provisions enact that the Board of Trade shall issue and cause to be published scales of medicines and medical stores suitable for different ships and voyages, that all lime or lemon juice to be used on board ship shall be placed in bond, and shall there be examined by an inspector, after which, if approved, 15 per cent. of spirits is to be mixed with it, and bottled in such manner as the Commissioner of Customs shall direct; that the juice so mixed shall be served out daily with water and sugar, at the rate of one ounce per man per day, and that any refusal to drink it shall be recorded in the log-book of the ship. Permissive rules are also laid down for the Medical inspection of seamen, which enjoin that the local marine board of any port may appoint a Medical inspector, and that such inspector may be called upon to examine any seamen by request of the master or owner of the ship on which the seaman seeks employment. The Act relates almost entirely to the sanitary condition of the merchant seamen, to whom it will prove most acceptable.

SOCIAL SCIENCE ASSOCIATION.—The arrangements for the forthcoming annual congress of this Association at Belfast on September 18 next are now near completion. Lord Dufferin will preside over the Association, and deliver his inaugural address on the evening of the opening day. The Jurisprudence Department will have the Hon. Mr. Justice O'Hagan at its head, with the Irish Master of the Rolls over the Repression of Crime Section. Dr. Andrews, F.R.S., Vice-President of the Queen's College, will preside over the Educational Department; Sir James Y. Simpson, M.D., of Edinburgh, over that of Health, and Sir Robert Kane, F.R.S. of Dublin, over that of Economy and Trade; Mr. William Mulholland, of Belfast, will act as chairman of the Trade Section. Queen's College has been placed at the service of the Association, and the departmental meetings will be held in the various rooms.

Arrangements are being made for holding *soirées*, and excursions, in connexion with the Association, are being organised to places of interest in the neighbourhood. Altogether the prospects bid fair for a large and influential gathering.

Is there Fibrine in the Hepatic Vein?—Some physiologists say no, but M. Vulpian, in a paper just read before the *Société Philomathique* of Paris, comes to a different conclusion. M. Vulpian details the results of numerous experiments, and shows that when certain sources of error are eliminated the characteristic clot, which proves the presence of fibrine, may be easily obtained in blood drawn from both the hepatic and renal veins.

Blue-stone in Bread.—The Belgian police have just detected an instance of the horrible practice, prevalent in some parts of the Netherlands, of improving the appearance of bread by mixing a certain quantity of sulphate of copper with the dough.

Cholera from Rice.—It is stated in the report of the Medical Officer of the Privy Council, that the researches of Dr. Hallier go far to prove that cholera results not merely from a fungus, but that this fungus is nothing more nor less than the *smut* or *mould* of bad rice. Now, although the observations which go to prove the identity of the fungus found in choleraic discharges with that existing in diseased rice are certainly novel, the theory that cholera results from bad rice is by no means new. It has been started by various authorities, as may be seen by reference to Dr. Macpherson's "Cholera in its Home," but without any satisfactory demonstration. Dr. Hallier, however, has thrown a new argument into the scale.

Female Physicians in the Last Century.—It was thought, when Miss Elizabeth Blackwell presented herself to the world of Medicine, that she was a novelty worthy of note, but it seems, according to our contemporary the *Athenæum*, that this lady had her prototype in the last century. Truly there is nothing new under the sun, and Miss Elizabeth Blackwell is not the first lady leech of the name. In 1737 we find that another Elizabeth Blackwell published her "Herball, containing 500 cuts of the plants most useful in Physic, engraved by her, with descriptions," two vols., London. This book went through some editions, and was subsequently brought out in Germany by Trew, of Nuremberg, in 1750.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

G. H. H.—We have referred your letter to our publishers.

Mr. McNicol.—Apply to Dr. Down, Earlswood, who will give you the requisite information.

The Recent Trial for Malpraxis.—We had not the slightest intention of referring in any way to Mr. G. A. Brown in the remarks we made on this case.

An Anxious Mamma.—At the Belfast meeting of the Social Science Association, a paper on "Defective Alimentation as a Cause of Infant Mortality," will be read by Mrs. M. A. Baines.

Dr. Dick.—The paper to which we referred, and of which we gave a brief abstract, will be found in the *Gazette Medicale de Lyon*, July 28. It is entitled "Analyse des Os dans l'Ostéomalacie," and was read by M. Drivon before the Société des Sciences Médicales.

Dr. Whitehead.—The treatment is by one of the ordinary recognised drugs. The case, though interesting, is too long for insertion.

A Fellow, Penzance.—Not until July next. Mr. Partridge, the late President of the College, will be the chairman at the Fellows' festival.

A. Y. Z., Stockwell.—The statement to which you refer was made on the authority of Aubrey, who relates that Avise Evans had a fungous nose, and it being told to him that the king's hand would cure him, he awaited Charles in the park, kissed the royal hand, and rubbed his nose with it, which disturbed the King, but *cured* Evans.

Mr. Freeland.—John Hunter lived on the *east* side of Leicester-square, next door to what is now the Sablonier Hotel. On the *west* side lived William Cruickshank.

Longissimus Dorsi, Llandudno.—The following lines were composed on the occasion. You may consider them applicable:—

> "To show that, unlike to old drones,
> Young Surgeons are full of invention,
> Here lies one who did add to the bones
> A bone called the '*bone of contention.*'"

Syrup of Orange and Quinine.

To the Editor of the Medical Times and Gazette.

Sir,—I am greatly obliged for your friendly comments upon my "Syrup of Orange and Quinine." With respect to the disadvantage it possesses of moulding on the surface when exposed to the air, allow me to state that my attention was drawn to it some two months ago; seeing at once what a great drawback this would be to the general use of my preparation, I immediately set to work to remedy it. What I am now sending out is perfectly free from this objection.

By inserting this in your next issue, you will oblige Yours, &c.
Heywood, Manchester, August 26. Wm. Beckett.

Army Competitive Examinations.

To the Editor of the Medical Times and Gazette.

Sir,—Any of your correspondents will oblige by stating in your columns the average numbers of marks required to be obtained to constitute a first-class and second-class Assistant Surgeon respectively. We can then draw our own conclusions as to the third-class.

There is a difference of 3135 between the marks of the first and last names published in your journal of the 17th instant in a list of twenty-four candidates. I am, &c. M.D.

August 20.

"An Captandum" Medical Literature.

To the Editor of the Medical Times and Gazette.

Sir,—Just before reading the *Medical Times and Gazette* of last week, I happened to notice the article on chloroform in the *Dublin Quarterly Journal* for August, which has called forth the censure of your correspondent "Capricornus."

Although in the article in question, which abounds in errors both of inference and of fact, my name is frequently mentioned in a way unpleasant to myself, I determined to make no public protest; for, in the first place, to correct the numberless faults would be nothing less than to write another paper; and, besides, I felt sure that the Profession would estimate the communication at its own inherent worthlessness.

Inasmuch, however, as "Capricornus" has brought the subject before your readers, I take this opportunity of saying how cordially I agree with him in his observations, and I share in his regret that a matter of such importance as anæsthesia should have been treated in a respectable journal in a manner at once inaccurate and unscientific. I am, &c.

29, Duncan-terrace, August 27. A. Ernest Sansom, M.D. Lond.

The Treatment of Gallstone by Hypodermic Injections of Morphia.

To the Editor of the Medical Times and Gazette.

Sir,—In your impression of last week there is an interesting case by Mr. Flack on the treatment of gallstone by the administration of chloroform. The author questions what drug will be equally efficacious in the continued spasm and incessant vomiting which accompany the passage of the stone. During the last two years I have treated four cases of gallstone, where the pain was probably as intense, and the vomiting and exhaustion as great, as in the case related by Mr. Flack, by subcutaneous injections of the acetate of morphia made into solution with distilled water acidulated with acetic acid. In each case the urgent symptoms have been almost immediately relieved, and in three of the cases the gallstones have been recovered, either whole or in fragments. Each case occurred in people above 30 years of age, and the quantity of morphia injected has been the third of a grain. One injection sufficed in each instance. One of the patients had an attack since, and the same treatment was again effectual. The morphia has been injected through the integument in different parts of the body in these several cases, relief being as effective when injected in the arm as when in the hypogastric or epigastric regions. Prior to my using the first case, I had employed the usual remedies (morphia, etc., hot baths) without benefit; the patient was completely exhausted from the fearful pain and sickness. The injection acted like a charm—the pain was relieved in less than a minute, and the patient fell into a stupor for some hours. When she awoke a dose of castor-oil was given, and the evacuations carefully examined. In the third the stone was found, rather smaller than a pea.

In a case of renal calculus I had some weeks ago, the morphia injection answered admirably after other means had failed, and it was the only remedy that for six weeks subdued the intense pain that accompanied a case of cancer of the liver. It also relieved or cured a very obstinate case of chronic dysentery that had resisted all previous treatment, including the internal exhibition of the drug. It would also appear that there is more immunity from danger in the treatment of these cases by morphia injection than by chloroform, especially if the urine be examined and found free from albumen.

I may add that I have treated many cases of cancer in different stages with the hypodermic injection of acetic acid and morphia, but I have seen no good result to follow. I am, &c.

York, August 18. William Bird.

P.S.—Since commencing the above I have noticed Mr. Thompson's letter in your impression of to-day.

The Stimulating Properties of Alcohol.

To the Editor of the Medical Times and Gazette.

Sir,—In reply to the query of Dr James Edmunds in a recent number, in reference to the stimulating properties of alcohol, I beg to submit the following observations, for which I crave a corner in your next.

In order to appreciate well the claims that alcohol has for being classed among stimulants, independently of its chemical effects, it will be convenient to examine the latter in as far as immediate contact with organic, and particularly animal, tissues is concerned. Locally applied, it acts as a potent irritant, and even caustic, through its powerful affinity for water, with which it combines, coagulating simultaneously the albumen and fibrin, previously in a liquid state, and thereby contracting and condensing the tissues, which become inflamed in consequence.

These vital phenomena are due partly, no doubt, to the reaction caused by the chemical operation of the alcohol, and partly also, it must be admitted, to a dynamic action quite apart. (The above facts and suggestions have been noted from Dr. Pereira's large work on Materia Medica and Therapeutics, article on alcohol.)

Before entering on its general and more remote effects, it will be well to reproduce the definition of a stimulant given by Dr. Billings in his "First Principles of Medicine":—"A stimulant is that which, through the medium of the nervous system, increases the action of the heart and other organs, by calling forth the nervous influence or facilitating its extrication in them."

This definition, now accepted, will admit of easy application. While in the blood it excites the vascular system to increased action, augmenting thereby the fulness and frequency of the pulse, probably by direct contact with the internal surface, the organic nerves distributed there being susceptible of the impression. The immediately preceding suggestions have been also borrowed from Dr. Pereira's work already named.

The following are some of the principal phenomena resulting from the ingestion of alcohol, and usually considered the effects of stimulation:—

1st. The increased impetus communicated to the pulsations of the heart and arteries, as indicated at the wrists—experienced when taken in ordinary quantities, or administered to restore the circulation in syncopal tendency or actual syncope, also in asthenic fevers and other exhausting diseases of a chronic nature.

2nd. The delirious acceleration of the mental operations soon following a large dose.

3rd. The chronic inflammatory action set up in the substance of the liver during its circuit through the portal ramifications, alcohol having been detected in the vein and its branches and in the organ itself, resulting in the interstitial exudation of contractile lymph, constituting the disease now generally called cirrhosis, consequent on the frequent and long-continued abuse of the drug.

As some subsequent reaction, however disproportioned to the primary effects, is produced by all stimulants, those in which the reaction is most striking have been classed apart as narcotics, which occupy an intermediate place between stimulants and sedatives, and among which even alcohol and its analogues sometimes find a place.

This variety and disproportion in the effects produced by different bodies compared with each other in relation to their primary operation may depend on their physical and chemical constitution. With alcohol—we suppose a single but full dose—the primary effect is comparatively evanescent, but it is soon followed by a sufficient amount of nervous exhaustion to lead the sufferer to seek relief in a repetition. This fact would of itself serve to support the idea of its truly stimulating nature, as the reaction may be easily conceived to result from the diminution of its energy, while this combustible body finds a ready outlet through the substance of the lungs, where a large proportion of oxygen is absorbed for its full oxidation, with the production of carbonic acid and water and generation of considerable heat. It is also exhaled as alcohol, partially in consequence of its excessive volatility, through the broncho-pulmonary mucous lining, whence the odour of the breath, and passes also through the skin and kidneys, whose activity it increases.

All the well-known stimulants may appear to play another part where the quantity or concentration is adequate, or their operation so long continued as to destroy the vitality of the tissues and organs which are submitted to their influence, or temporarily annihilate their functions. Electricity may be adduced as a striking example, as in the discharge of a well-loaded Leyden jar. Some of the caustics probably operate in like manner, the actual cautery itself. In the same manner, the comatose condition of the drunkard after an excessive dose must be considered as the annihilation for the time of his faculties.

There is every reason to believe that the effects of alcoholic liquors are also in great measure conveyed through nervous transmission from the stomach to the heart by the pneumogastric nerves, and hence its rapidity in reaching that organ, whose reflex sympathy is very considerable, as also that of the brain, the avenue to which is comparatively direct. The lungs, too, may probably receive, in like manner, a stimulus besides, indirectly through the increased action of the central organ of circulation. Ammonia as a stimulant undoubtedly acts, and perhaps chiefly, after that manner, which fact has procured for it the epithet of diffusible; otherwise it would be liable to become neutralised, partly or wholly, by any free acid in the stomach, with which combining it would, previous to absorption, form a saline or several analogous compounds, whereby its action would be accordingly modified.

Begging you to excuse the great length into which the subject has led me, I am, &c. A. DE NEGRI, M.B.

84, Belsize-road, St. John's-wood, N.W., August 14.

BOOKS RECEIVED—

Chuckerbutty on Cholera—Ollier de la Régénération des Os—Report of the Sanitary Condition of St. Pancras, by Dr. Hillier—Jaccoud's Dictionnaire de Médecine et de Chirurgie, vol. vii.—Ross's Studies, Biographical and Literary—Dr. Gibbon's Report of Sanitary Condition of Holborn District.

PERIODICALS AND NEWSPAPERS RECEIVED—

L'Union Médicale—Gazette Hebdomadaire—Laboratory—Gazette des Hôpitaux—Mouvement Médical—Delhi Gazette—Macclesfield Courier—Jamaica Guardian—Jamaica Gleaner—Liverpool Daily Post.

COMMUNICATIONS have been received from—

Dr. H. DAY; Dr. B. W. RICHARDSON; Mr. E. BELLAMY; Mr. F. J. GANT; Dr. G. E. DAY; Mr. J. CHATTO; Dr. S. W. D. WILLIAMS; M.D.; Dr. PITMAN; A. D.; Dr. J. WHITEHEAD; Dr. DOMETT STONE; Mr. G. A. BROWN; Mr. BECKETT; Dr. O'LEARY; Dr. BALL; Mr. R. V. ASH; Dr. SCORLING; Dr. SANSOM; Dr. STRANGE; Mr. STEELE; Dr. DEWAR; A PROVINCIAL HOSPITAL PHYSICIAN; Staff-Surgeon KIDD; Mrs. BAINES.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 24, 1867.

BIRTHS.

Births of Boys, 1154; Girls, 1101; Total, 2255.
Average of 10 corresponding weeks, 1857-66, 1793·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	666	581	1247
Average of the ten years 1857-66	614·2	607·2	1221·4
Average corrected to increased population..	..	..	1312
eaths of people above 90	..	..	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	1	3	1	4	6	43	4
North ..	618,210	6	2	6	1	4	9	50	3
Central	378,058	2	4	4	..	3	2	13	3
East ..	571,158	7	5	2	3	6	12	39	1
South ..	773,175	4	2	4	2	2	15	51	7
Total ..	2,803,989	19	14	19	7	19	44	196	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·871 in.
Mean temperature	63·7
Highest point of thermometer	79·6
Lowest point of thermometer	49·5
Mean dew-point temperature	57·2
General direction of wind	S.W.
Whole amount of rain in the week	0·59

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 24, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Aug. 24.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Aug. 24.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tens per Acre.
London (Metropolis)	3082372	39·5	2255	1421	1247	79·6	49·5	63·7	0·59	60
Bristol (City)	165572	25·3	103	74	173	78·8	47·0	62·4	0·81	81
Birmingham (Boro')	343948	43·9	278	167	178	76·7	46·0	63·8	0·85	86
Liverpool (Borough)	492439	96·4	401	285	284	78·3	48·4	64·2	0·09	9
Manchester (City)	362823	80·9	268	205	†291	80·0	46·6	62·8	0·21	21
Salford (Borough)	115013	22·2	80	58	57	76·7	44·3	61·5	0·23	23
Sheffield (Borough)	225199	9·9	162	119	93	76·2	47·5	61·6	1·33	134
Leeds (Borough)	232428	10·8	214	118	147	78·8	40·5	62·3	0·88	84
Hull (Borough)	105742	30·0	79	49	45	77·0	48·0	62·4	0·72	73
Newcastle-on-Tyne, &c.	124960	29·4	110	66	80	71·0	52·0	61·5	0·91	92
Edinburgh (City)	176051	39·8	106	85	65	70·7	50·0	58·3	1·00	101
Glasgow (City)	440979	87·1	373	257	206	70·8	48·0	57·2	1·62	164
Dublin (City and some suburbs)	319210	32·8	166	†157	161	74·5	49·6	62·7	0·38	38
Total of 13 large Towns	6187764	34·8	4597	3061	2837	80·0	40·5	61·9	0·70	71
					Week ending Aug. 17.	Week ending Aug. 17.				
Vienna (City)	(1863) 560000	..	..	..	236	..	..	68·5§	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·871 in. The barometrical reading decreased from 29·97 in. on Sunday, August 18, to 29·73 in. on Tuesday, August 20.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 66·1°.

APPOINTMENTS FOR THE WEEK.

August 31. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

September 2. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

3. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

4. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

5. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

6. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

LIQUOR CARBONIS DETERGENS,

OR

Concentrated Alcoholic Solution of the Active Principles of Coal Tar.

A REMEDY FOR GANGRENOUS SORES, WOUNDS, ULCERS, AND ALL FETID DISCHARGES.

To prepare the Emulsion of Coal Tar, which is applicable to all domestic and therapeutic purposes,
Take Liquor Carbon. Detergens . . . . 1 part.
Water . . . . . 4 parts. Mix.

Mere agitation of the mixture gives a durable Emulsion. By the addition of water, Emulsions at a strength varying from one-tenth to one-thousandth may be effected. Whatever the amount of water, the Tar remains suspended in a state of division equivalent to solution.

The qualitative analysis of this compound shows that it preserves all the virtues of the Tar, the active ingredients of which have been taken up by the alcohol—viz., the benzine, naphthaline, and carbolic acid—a powerful disinfectant. Further, the alcohol imparts to the preparation other properties which render this new compound applicable to the purposes of hygiene, medicine, and natural history.

The following well-authenticated cases will sufficiently show the value of the results effected:—

Gangrenous Sore.—Deodorisation at will with the compresses impregnated with the Emulsion at a strength of one-fifth; *rapid cure.*

A Wound consequent upon two large Carbuncles; fetid odour.—The same application was followed by immediate deodorisation; sleep restored after the first dressing, wound cleansed, speedy cicatrisation.

Ulcers of Leg, probably of syphilitic origin.—Rapid improvement in the nature of the puriform secretion, with instantaneous relief; healing promoted.

Voluminous Anthrax.—The Coal Tar Emulsion at one-tenth changed the aspect of the wound, relieved the patient, and removed the slight odour emitted; the cure was more prompt than if ordinary dressings had been resorted to.

Impetiginous Eczema of the Ears, with fetid secretion.—Instantaneous deodorisation, absence of pain, very rapid decrease in the abundance of the suppuration, prompt detachment of the crusts; cure effected in ten days.

Intertrigo of the Ears, with ulceration and copious puriform discharge.—Emulsion diluted to one-twentieth, sudden deodorisation; cure effected in ten days.

Ozæna emitting a very offensive smell.—The patient discharged from a public establishment on account of the disease. Application of the remedy with a piece of lint, and sponge attached to a whalebone rod; prompt disappearance of fetidity, diminution of the suppuration and swelling, modification of the nature of the secretion, recovery.

Ulcerated Chilblains.—Emulsion diluted to one-fifth; rapid recovery, despite the persistency of cold weather.

Pedicularis capitis et pubis.—Lotions with the Alcoholic Solution; rapid destruction of the parasites.

Ulceration of the Ankle of three weeks' duration.—Recovery after a single application of the remedy.

Adhesion and Retention of the Placenta after parturition; marked putrid odour.—Injection into the uterine cavity of the Emulsion at one-fifteenth; deodorisation after one injection, which occasioned a very transient but sharp sensation of heat.

Chronic Inflammation of the Gums, with slight hæmorrhage.—Application of the remedial agent, diluted to one-twenty-fifth, with a tooth-brush; rapid cure.

Chronic Gleet four months' standing (male).—Injection in the proportion of 2 drachms to 8 oz. of water, used three times daily; after using the lotion the discharge increased, but altered in character; continued a few days longer (without any medicine); discharge completely stopped on the fourteenth day.

The Emulsion has been used with much benefit in cases of "*constitutional ecthyma*," giving rise to fetid emanations.

Sold in Bottles containing One Imperial Pint, at 4s. (Bottle included); and for the use of Public Institutions, Manufactories, &c., in One Gallon Stone Jars, at 24s. each.

PURE COAL TAR SOAP.

REGISTERED AS

TRADE

MARK.

COMPOUNDED FROM OUR "LIQUOR CARBONIS DETERGENS."

By daily use of this Soap, infectious diseases are prevented, and a clear and healthy appearance imparted to the Skin.

Sold Retail by Chemists in Tablets at 6d. and 1s. each,

AND DIRECT FROM THE PROPRIETORS,

W. V. WRIGHT & COMPANY,

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,

SOUTHWARK-STREET, S.E. (REMOVED FROM 11, OLD FISH-STREET.)

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

LECTURE III.—PART II.

THE APPLICATION OF THE LONG OR DOUBLE-CURVED FORCEPS—INTRODUCTION OF THE BLADES.

THE LONG OR DOUBLE-CURVED FORCEPS.

THE application of this instrument is governed by a different law from that which governs the use of the short forceps. The short forceps, according to the recognised rule, must be applied with the blades quite or *nearly* over the transverse diameter of the head. The head determines the manner of applying it. But with the long forceps it is the pelvis that rules the application. The position of the head may be practically disregarded. The pelvic curve of the blades indicates that these must be adapted to the curve of the sacrum in order to reach the brim. They must therefore be passed as nearly as may be in the transverse diameter of the pelvis. One blade will be in each ilium, and the head, whatever its position in relation to the pelvic diameter, will be grasped between them. The universal force of this rule much simplifies and facilitates the use of the instrument. Not only does it apply to the position of the head in relation to the pelvic diameters, but also to all stages of progress of the head from that where it lies above the brim down to its arrest at the outlet.

It has been contended that the short forceps should be preferred in cases where the head is arrested in the cavity, and as a corollary it is urged that in cases of arrest at the brim, where the head has been brought into the cavity by the long forceps, this instrument, after serving so far, should be discarded and replaced by the short forceps. I do not concur in this view. I doubt whether any one who has had any considerable practice with the long forceps has found it worth while to change instruments in the course of delivery. The long forceps possesses a more scientific adaptation to the pelvis throughout the whole canal than the short forceps. And if the long forceps is found in practice capable of taking the head through the pelvis from brim to outlet, it follows that, since the whole contains the parts, the long forceps is qualified to take up the head at any point below the brim.

The pelvis has been compared to a screw. I think a better idea may be formed of its mechanical properties by comparing it to a rifled gun, and the child's head to a conical bullet. But even then the comparison is not complete, for the pelvis, unlike a gun, is a curved tube. Now, just as the head must traverse the pelvis in a helicine course, determined by the relation of form between pelvis and head, so is it natural that an instrument designed to grasp the head should be so modelled as to be fitted to follow this helicine course during introduction and extraction. This indication a well-modelled long forceps fulfils; no single-curved forceps can fulfil it.

First, as to the application when the head is delayed at the brim.

Mode of Applying.—Position of the Patient.—The patient should lie on her left side, the knees drawn up towards the abdomen; the head should be only slightly raised. She should lie across the bed, with the nates near the right edge, about midway between the head and foot. This will facilitate the introduction of the blades, and give room for the sweep of the handles round the pubes at the end of the operation. I do not find it necessary to bring the nates to hang over the edge of the bed. I have often passed both blades when the patient has been lying in the middle of the bed. Sometimes it is very desirable to move her as little as possible.

FIRST ACT—INTRODUCTION OF THE BLADES.

Selection of the Blades.—First dip them in warm water, wipe dry, and lubricate with oil, or lard, or cold cream. Join them, and, holding the instrument with the concavity of the pelvic curve forwards, and the blades in the position which they are to occupy in the pelvis, you take that one first which is to lie in the left or lower side.

First Stage.—One or two fingers of the left hand are passed inside, in at the perinæum and between the cervix uteri and the head. Then, bearing in mind the relative forms of the instrument, the head, and the pelvic canal, the point of the blade is passed along the palmar aspect of the fingers at first nearly directly backwards towards the hollow of the sacrum.

FIG. 14.

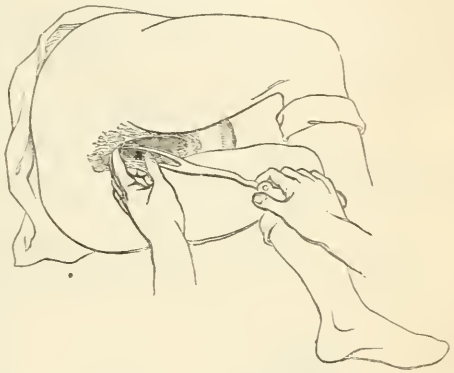


FIG. 14.—Showing the first stage of introduction of the first blade.

Second Stage.—The handle is now raised so as to throw the point downwards upon the left side of the head. As the point of the blade must describe a double or compound curve—a segment of a helix—in order to travel round the head-globe, and at the same time to ascend forwards in the direction of Carus' curve so as to reach the brim of the pelvis, the handle rises, goes backwards, and partly rotates on its axis.

Third Stage.—The handle is now carried backwards and downwards to complete the course of the point around the head-globe and into the left ilium. Slight pressure upon the handle ought to suffice. This will impart *movement* to the blade; the *right direction* will be given by the relation of the sacrum and head. The blade is now *in situ;* the shank is to be pressed against the coccyx by the back of the operator's left hand whilst he is introducing the second blade.

FIG. 15.

FIG. 15.—Showing second stage of introduction of first blade. The point is running up round the head and into left side of the pelvis.

Fig. 16.

Fig. 16.—Showing last stage of introduction of the first blade and the crossing the shank of the first blade by the second blade in the first stage of its introduction.

Introduction of the Second Blade.

First Stage.—Two fingers of the left hand, the back of which is supporting the first blade against the perinæum, are passed into the pelvis between the os uteri and the side of the head which lies nearest to the right ilium. The instrument held in the right hand lies nearly parallel with the mother's left thigh, or crossing it with only a slight angle. The point of the blade is slipped along the palmar aspect of the fingers in the vagina, across the shank of the first blade *in situ*, inside the perinæum towards the hollow of the sacrum.

Fig. 17.

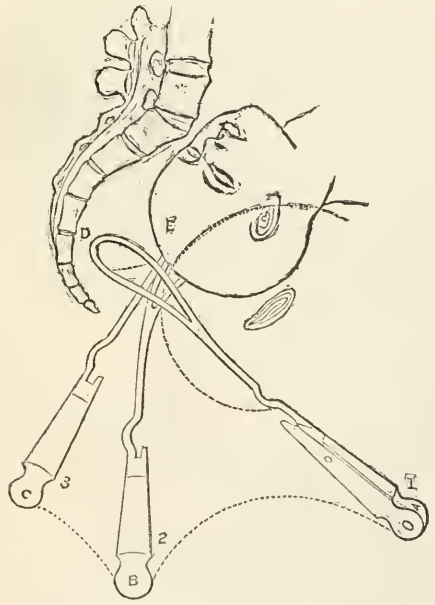


Fig. 17.—Introduction of the first or left blade of the long forceps.—1. First stage, or introduction of point of blade in the hollow of the sacrum: A, the handle, is then raised, and at the same time carried across, rotating partly on its axis to B, so that the point C, turning round in the hollow of the sacrum to E, strikes the head, and rises towards the left side of the pelvis. 2. The second stage, or advance of the blade round the head and up in the left ilium. 3. Third stage: The handle B has travelled in the direction B C, still rotating slightly, until at C it is at rest *in situ*, the shank near the coccyx, where it is held by the back of the operator's left hand, whilst the point of the second blade is passed over and across it inside the perinæum, as seen in the next figure.

Second Stage.—As the point has to describe a helicine curve to get round the head-globe and forwards in the direction of Carus' curve, the handle is now depressed and carried backwards until the blade lies in the right ilium. When it has reached this position the handle will be found near the coccyx, nearly in opposition to the first blade.

The application of the long forceps is further illustrated in Figs. 17 and 18.

Fig. 18.

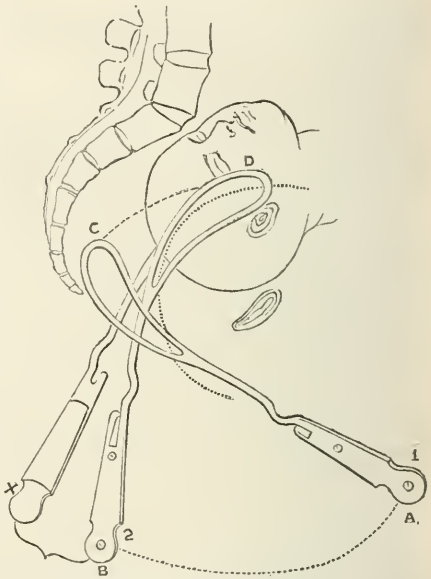


Fig. 18.—Introduction of the second or right blade of the long forceps.—1. First stage of second blade; 2. Second stage of second blade; X, the first blade *in situ*. A, the handle, at the moment of passing C, the point, inside the perinæum into the hollow of the sacrum, across X, the first blade; the handle then drops and goes backwards to B, the point C travelling round the head, and advancing into the right ilium in the direction of the axis of the brim to D; when it has reached this position, it will be found nearly opposed to the first blade, X; the locking is effected by bringing the handle X over the handle B.

The Locking.—This is effected by a slight movement of adaptation. A handle is seized in each hand. The handle of the first blade is brought a little forwards over the handle of the second blade. If one blade is a little deeper in the pelvis than the other, it is either brought out, or the other is carried in until the lock is adjusted. This is commonly facilitated by pressing both handles backwards against the coccyx. This movement, by throwing the blades well into the ilia, where there is room, allows the handles to be rotated a little, so as to fall into accurate relation.

Local Medical Officers.—From a communication made by Mr. Plant, the meteorologist of Birmingham, to the *Pall-mall Gazette*, it seems as though the town of "guns and buttons" stood in sad need of a Medical Officer of Health. Nuisances of the worst kind are permitted to exist in the most densely populated parts of the town, and give rise to much ill-health. Birmingham appears to be one of the towns which supply cat's meat to the metropolis, and Mr. Plant complains that the boiling of horseflesh for the preparation of this substance is a prolific source of disease. We believe the town has what is called a "borough analyst," and it seems to us that this officer's duties might be extended so as to produce the desired result.

ORIGINAL COMMUNICATIONS.

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
Surgeon and Pathological Anatomist to the Royal Free Hospital.

No. II.

Reparation by Primary Adhesion in Wounds of Arteries and Veins.

In tracing the natural courses and tendencies of wounds of blood-vessels, with a view to their treatment accordingly, it is of some consequence at the same time to notice also the structural conditions, of which the pathology is thus applied. This, not because conditions of structure have ever any practical importance in themselves, but that the particular forms of injury here referred to are associated with somewhat different vital careers.

Wounds of Arteries.—If the vessel be healthy, the lesion is uniformly disposed to heal by coagulation of the blood and the formation of a clot or clots so placed as to arrest the hæmorrhage; a temporary provision, followed by primary adhesion, or, possibly, adhesive inflammation, whereby the vessel is permanently secured or obstructed.

But this process of coagulation and adhesion is *modified* chiefly according to the structural kind of wound—incised or lacerated, either of which may also be a partial or complete division of the artery. Then, again, the direction of the wound more particularly modifies the process of healing.

1. An *incised* and *partial* division of an artery is the simplest instance. If the direction of the cut be *longitudinal* or oblique, it will close more readily than a transverse incision, the edges of which gape and do not fall into apposition. The elasticity of arterial tissue longitudinally makes all the difference, and in favour of *that* direction, aided also, in this case, by the circular contractility of the artery. The line of incision remains closed; blood escaping coagulates betwixt the vessel and its sheath, forming a conpress, assisted by any corresponding coagulum which may have formed outside the sheath. The relative position of the apertures in the artery and its sheath are displaced somewhat by the formation of the intervening portion of clot-compress, thus further tending to arrest hæmorrhage. The homogeneous fibrils, interspersed with many-nucleated corpuscles, of which coagulated fibrine consists, are represented in Fig. 1. Associated with blood-corpuscles, it forms the clot. But this clot-compress is a temporary provision only. Adhesion soon follows in the line of incision, the edges being in contact. A *transverse* cut, partly through the circumference of an artery, opens, the vessel contracting longitudinally by virtue of its elasticity. Adhesion cannot ensue. The aperture is closed by the effusion and organisation of lymph *within* the artery, which thus becomes impervious and obliterated. Lost, however, for ever as a blood-conveying tube, hæmorrhage of fatal character is arrested. Nature is still victorious. The *size* of the vessel will somewhat affect the issue, which is otherwise in favour of a longitudinal incision. An artery, like the temporal, with a longitudinal slit, heals without obliteration. An artery of larger calibre, and similarly wounded, becomes impervious and obliterated. And the ultimate success of Nature's effort is apt to be marred, even when the wounded vessel remains pervious; for the internal and middle coats not adhering firmly, this defect predisposes to aneurism.

Fig. 1.

2. *Complete* division of an artery by incision is healed by a modification of the same process—clot formation, but not as a compress, being the temporary provision, lymph effusion permanently plugging up the vessel.

Immediately after its division the artery retracts by its elasticity, longitudinally, into its sheath, which thus projects loosely; the mouth of the vessel contracts, even to a pin-hole opening, by its muscular contractility circularly. The retracted portion thus contracted has a conical shape, like that of a Florence oil-flask or French claret bottle.

Contractility may be sufficient to close the vessel and prevent further hæmorrhage. In this way small arterial branches spontaneously cease to bleed in an open wound exposed to the air, or the action of cold water; but the artery having retracted, coagulation is induced within the loosely projecting filamentous sheath, which entangles the blood as it flows; and this event may be aided by cessation of the stream, owing to failure of the heart's action—cardiac syncope—another resource of Nature for the temporary arrest of hæmorrhage. Coagulation proceeds concentrically. The clot, at first pervious and transmitting a small central stream of blood, soon forms a solid mass, which, still enlarging, passes up the bore of the artery for a short distance in the shape of a small cone. This portion—internal coagulum or *bouchon*—and that in the sheath—external coagulum or *couvercle*—together form a clot, in shape like a glass stopper fitted into a decanter, to which the whole is compared by Professor Gross. The shape of Nature's product is not quite so finished off, for a small portion of the clot is insinuated between the sheath and artery beyond the point of retraction, thereby compressing the arterial aperture, while a still larger portion of an irregular shape projects beyond the aperture of the sheath. The whole clot is, however, continuous, and with these little offsets still bears the resemblance suggested.

The permanent closure of the vessel is effected by the effusion of plastic lymph. Like coagulated fibrine, its organisation consists, essentially, of fibrils; but those of plastic lymph result from the elongation and attenuation of cells into fibres, in various stages of development, Fig. 2. Corresponding

Fig. 2.

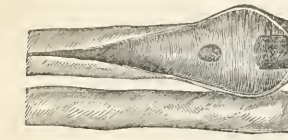
in situation to the clot—*i.e.*, at the aperture, around it slightly, and extending into the vessel, the lymph intervenes between it and the clot, which it gradually replaces. During this change the clot varies in appearance, being partly lymph, and partly ordinary coagulum.

The lower end of a divided artery is closed up much in the same way. According to Guthrie's observations it retracts and contracts less than the cardiac end; and the internal coagulum is altogether absent, or very imperfectly formed in many instances.

3. A *lacerated* wound of an artery, if *partial*, may extend through the external and middle coats, leaving only a thin undivided inner membrane, which still continues the channel of communication. Hæmorrhage is imminent. Or the laceration may extend through the inner and middle coats, leaving the outer cellular coat entire. Hæmorrhage threatens, or gangrene may supervene. But if the two inner coats be cut rather than torn, reparation generally takes place and secures the vessel. Such is the kind of injury purposely inflicted by the Surgical application of a ligature, which leaves the external coat undivided; and although itself noxious, as a foreign body in the very pathway of reparation, the artery becomes sealed with plastic lymph, plugged up also with coagulum, and obliterated. The details of this process, thus artificially induced by Surgical interference, will be described in connexion with the *treatment* of hæmorrhage.

4. *Complete* laceration of an artery—all the coats being torn through—heals without hæmorrhage or scarcely any. The process is the same as that which takes place after

division of an artery by incision. But the cellular sheath and outer cellular coat are drawn off the two inner coats, which retract. Consequently the clot that forms in the projecting portion of loose sheath is larger than when the vessel is simply cut across; presenting a bulb-shaped extremity which may extend to half an inch or an inch in length. This appearance is well shown in Fig. 3, which represents a popliteal



artery and vein in a remarkable case, both vessels having been ruptured by a violent twist of the knee-joint. Gangrene of the leg ensued, for which I amputated above the knee; with, however, a fatal result.

The *treatment* of hæmorrhage, by imitation of these modifications of the natural process for its suppression, will form the subject of my next communication.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. II.

Semeiotics may be construed as the doctrinal language of pathology. By it all classes and ranks of men speak to us with unerring uniformity. It possesses a variety of legitimate characters, and whilst it conveys to the mind of the Practitioner intuitive ideas more awakening, impressive, and durable than oral or written speech can accomplish, it also impresses us with a force unequalled by any other agency.

Experience alone can tutor the mind rightly to accept or refute, interpret, and use with advantage, this effective language, which, for the sake of arrangement, we may readily classify under three divisions—the ocular, the tangible, and the auscultatory.

The largest field of observation is opened to us by the first, for in the exercise of the eye we read the most instructive department of semeiology, in which physiognomy ranks foremost in importance. We are constantly guided by this significant language whilst prosecuting the study of those sections of natural sciences collateral to clinical Medicine.

In chemistry, the eye tutors the mind concerning the nature of a crystal by its angles, colour, and solubility. The form, origin, and course of a muscle, nerve, or vessel instructs us in its physiological action. In botany, vegetable physiognomy forms the basis of a knowledge invaluable alike to the agriculturist or chemist, and to the geologist or mineralogist.

It has been affirmed that no employment induces a habit of attention so thorough as that of drawing. Daily experience in the sick room convinces us that the constant practice of comparing all that is healthy and noble in man, and his deportment with disease as it is depicted in the general contour, induces also a habit of thought and a power of observation, which not only establishes a new association of our being with the physical world around, but it enhances the charms of a noble profession almost to fascination. For it, as Martin Tupper puts it,

> "The map of the face,
> The picture of the eye,
> Are traced by the hand of passion,"

then the language of disease, speaking to the faculties of our mind through a deranged form or gait, expression or colour, complexion or posture, etc., opens to the Medical observer a ceaseless source of interest. No longer doomed to sit at the bedside trammelled, as the student now often is, within the narrow limits of copying name, age, occupation, and a wearisome, unprofitable history of the patient's case—the bulk of which, by the bye, is found at the autopsy to merit no other epitaph than "*Nihil ad rem*," whilst the diagnosis of the disease is almost unnoticed—he would be led to plunge at once into the real study, physiognomically, of the sick man.

It is in vain for those who admit the great importance of this subject to assert that it receives due attention from the Professors of clinical teaching.

At this moment a lecture is before us lately delivered by a Physician to one of our largest metropolitan Hospitals, in which no allusion is made to the telling language of physiognomy beyond the trite remark that the patient was "of a very anxious countenance." Nearly half a page of a closely printed journal is occupied in relating what the patient thought, said, and did, but a dozen lines describe his symptoms. It is sad to observe also that the autopsy revealed the utter uselessness of the patient's account of the history of the disease and the inaccurate diagnosis and inappropriate treatment which were a sequence of each other.

After going over a period of more than ten years of life, the patient describes that he "suffers from cough, etc., loses flesh, seeks relief for many months at the Consumptive Hospital, though his heart and lungs were pronounced healthy," and it is not until "a hard lump in the abdomen" is discerned by him that any suspicion seems to have been awakened by the Medical attendants on the real nature of his case, which proved to be malignant disease of the organs of assimilation.

Instead of this verbiage, perhaps dictated to the clinical clerk before a class of students, how awakening would a sententious preface like the following prove to them:—"M. W., aged 48, widow, five children, the last six years ago; climacteric period three years ago. Countenance sad; features pinched; complexion wan and rather sallow; emaciation; eyes bright; mouth and lower half of face drawn downwards; pulse quiet; skin cool; bowels very costive; abdomen flaccid; some fulness and tenderness in epigastrium." Now, let her share in your labours, and relate to you that, "within an hour after taking food, her distress at the stomach is so great oftimes that if it obtains no relief vomiting is encouraged by tickling the fauces, and undigested food, with more or less yeasty matter, is rejected. Solids cause more pain than fluids." So much for her present condition, and the history is briefly comprised in these words—"Has suffered from indigestion for two years past, but has only observed sickness and emaciation for four months."

The clerk was ordered to write the following diagnosis:—"Scirrhus of the pylorus."(a)

Here we observe a valued chain of consequences, on which a most instructive lecture may be given. The skeleton of it runs thus:—N.B. "Age" most prone to organic changes in mammary, uterine, and gastric tissues, especially in the female after climacteric period. "Physiognomy" points at once to vice in the organs of assimilation; "colour" to cancerous diathesis; "mouth," etc., to abdominal suffering; "epigastric tenderness," "vomiting," etc., to stomach; "frothy matters" (sarcinæ ventriculi?), "period of pain after ingesta," denotes pyloric distress; "period of suffering from indigestion" betokens chronic disease; and the "date of emaciation" the actual change in the normal state of pylorus.

Let us, however, go and scan some portraits of suffering in the wards of the neighbouring Hospital. Here is a bed half surrounded with curtains. It is a cold frosty morning in February; the wind N.E.E.; the self-registering thermometer states that 26° was its minimum degree last night; it is now 48° indoors. See! the inmate of that bed can be well studied without causing a ruffle to the nicely adjusted furniture on and around it. Learn something which your own eyes can inform you of. He is not dosing. View his complexion; is it florid, pale, or dusky? The general bulk of his body; is it large or full, spare or wasted? Is he half cuddled up under the clothes and flat, or propped up with extra pillows and a face well exposed to air? Make very much of these and the following facts. They are indubitable witnesses, with a trumpet-like tongue, and they are authenticated by the testimony of your own senses. We are in a male ward. The patient looks about 26 years of age; a fine well-developed mechanic apparently. The countenance is inanimate, the cheek of a dusky red, the eyelid drooping, the eye dull, the brow overhanging, the lips dry, herpetic, and of a faint claret colour, the chest passive, but the abdomen active, and as you count its wavy ebbings and flowings through the bedclothes, you find them average thirty, whilst the pulse—for you may put your finger on the wrist and not disturb him—is a quadruple of the respiratory acts. A practical observer immediately recognises the unerring signs of pneumonia before he addresses a word to the patient. Let us pass on to a further bed. Study that pale face with its anxious distressed eye and puffy blanched lid; note the

(a) Medical Case-book at Hospital.

activity of the alæ nasi, and how the angles of the mouth are drawn slightly downwards, and the lips and teeth apart; there is a greasiness over the whole complexion; the cheeks have a bloated appearance. Mark the posture. He lies partly on his right side, the neck is bare on the left, and here your eye fastens on a distended jugular, which exhibits an oscillation through the lower half of the triangle of the neck, and denotes some imperfect closure of the cardiac chambers; the præcordial region is somewhat more rounded than the opposite one; both hands are lying helplessly on the abdomen or hidden under the flanks, red, swollen, and hot; your mind is already made up that nothing short of acute endo- or exocarditis can give rise to all this distress. Your ear will soon instruct you on this part of the diagnosis. Take care; you have incautiously jarred the end of the bedstead. A sudden "Oh, sir! mind my foot," informs you that a painful fire is raging around the ankles as well as in the wrists. Thus may you ascertain the seat of the internal disease at a physiognomical glance as certain as an untutored eye would read "acute rheumatic fever" in the red and swollen joints of the body; indeed, you may arrive at a more sure diagnosis of such a case than you could do in an acute attack of some organ within the abdomen, where sight, hearing, and feeling are either denied to you, or are feeble helpmates in the investigation. This is an inexplicable field of fascination to the mind of a sincere lover of our Profession. True wisdom reads volumes in watching the progress of such ravages of disease.

"No noise is here, or none that hinders thought.
* * * * * * * * *
Meditation here
May think down hours to moments. Here the heart
May give a useful lesson to the head,
And Learning wiser grow *without* his books."

But a far more palpable specimen of suffering is in No. 3 bed. A poor fellow, yet in the prime of life, with considerable *embonpoint*, has just had a fearful fit of coughing, whilst we were jotting down the foregoing cases. We use the word "fearful" emphatically, for he betrayed unequivocal evidence of alarm, as the ringing, harsh, straining, short, and laboured fits of cough came on, peal after peal. Look how he is propped up in a bed-chair, well padded with pillows (marked orthopnœa); the brows are raised, the eyes staring and full, some puffiness over their lids; the alæ nasi, those faithful outposts or janitors to the pulmonary labyrinths, are widely apart; the mouth is partly open, its angles slightly drawn downwards—this is the portion of the facial area in which we read the pain—the whole complexion is of a faint, dusky hue, and the lips are of a light purple. His hand has just now grasped the spittoon, and we notice the puffiness on its back, and observe a glairy, deeply sanguinolent, but not viscid or rusty expectoration, with here and there a few specks of coagula. Whilst we are examining the sputa, and allowing the patient to rally from his breathlessness, we observe, too, the character of the urine in the chamber beneath the bed. It is high-coloured, scanty, with a copious red sediment. We now take the puffy wrist, and find an irregular pulse, varying from 70 to 80. Feel the heart also; do you not recognise, ever and anon, a faint "purr" over its surface; lay your naked ear gently over the præcordia; what information do you gain now? Towards the left of the apex, with each full systole, a "whiff" is distinctly audible, but you lose it altogether as you track the aortic course, and come into the subclavicular regions. But you are suddenly interrupted in your examination; either the weight of your head, or the flurry of our visit, has brought on the cough, and he throws himself forward, bringing his face near his raised knees, whilst his hands are spasmodically grasping the bed-clothes on each side. It is happily a brief seizure, rather one of apnœa than of cough. Take advantage of the change of posture, and place your ear over the infraspinous surfaces of the scapula, and again the "whiff" is audible, and some considerable crepitation of a large nature is sprinkled about the lungs, especially over the right lower lobe. The Hospital clock has just chimed the half-hour, and we are reminded that it has occupied us less than that period to note down the foregoing facts; and what practical information do we derive from them? That our patient is suffering under the effects of an obstructed *ini-t* to the left ventricle; a damaged mitral valve has diverted this should-be "tell-tale" into a "turnpike" gate to that chamber, and it has become an outlet to the auricle;" hence all these concomitant troubles; the pulmonary apoplexy, falsely so called, with its infra-scapular crepitation, sanguinolent sputa, anasarca and paroxysmal dyspnœa—for as there is a peculiarity in the cause, so there is a singularity in the nature of dyspnœa arising from pulmonary or from endocardiac disease; in the former exertion induces it, and rest calms it, but in the latter the distress is usually greatest when the patient is asleep, and the circulation at its lowest ebb. Often at the "turn of the night," venous blood having failed to penetrate the lungs, and the left side of the heart not having received its quantum of blood to stimulate its fibres to action, a sense of impending suffocation starts the patient out of a deep sleep, and an attack, such as we were witnesses to, alarms the patient into a wide-awake breathlessness.

Why catechise such a sufferer from dyspnœa about the antecedents of his disease? What further information do you require orally that he has not afforded you physically? In a calmer moment you might put this important question—"Does your shortness of breath come on *in fits*, whilst you are in bed and asleep, or is it worse when you move about or pass from a warm to a cold air?" You would be glad to learn if the damaged mitral was the result of old rheumatic endocarditis or otherwise; that it is *not* the sequelæ of uræmic poisoning from morbus Brightii you are quite sure as you glance at the hepatic character of the urine, and can we not obtain this information from him when he is calmer? We have to clear our ground now, so as to pronounce a diagnosis and prescribe for immediate relief. If the student possesses a small amount of true wisdom, he will thus be enabled to build, not "a rude unprofitable mass," but a lasting foundation of invaluable facts, which future observation will mould and frame into a lifelong experience of pricelcss valuc.

The portrait now before us, like its allies, is intended to form a professional map to the scientific traveller. It gives a summary view of the whole subject "according to the latest survey." It will help him to explore the country, but not to know it as he knows it who has traversed the districts again and again. These physiognomical maps may give a student a good general notion of severe diseases in vital organs, but that sagacity which enables him "to take the right turn in the dark," can only come from the habit of perpetually traversing the ground from which the maps are taken.

The motor tract on the left side, as far as the medulla, and therefore above the decussation of these fibres in its centre, was the seat of disease; hence we notice the flat, expressionless state of the left half of the face; the angle of the mouth on this side is drawn downwards by the ordinary play of the platysma myoides, where its central fibres become intimately woven with those of the depressor anguli oris; the pinched nostrils, total inability to swallow or to protrude the tongue,

characterised the nature of the case as that of disease at the base, in which the ninth nerve was involved. That piercing shriek was uttered on the nurse attempting to raise his head for the purpose of giving him some liquid; it was most unequivocal in character, and partook of the nature of sudden alarm, as though instantaneous death must follow, and reminds one of that singular unfeline screech which cats yell out on lapping milk charged with a fatal dose of Scheele's hydrocyanic acid. An instantaneous convulsive shudder rushes through the whole respiratory tract as the liquid flash of death darts over it. The same shriek has been heard where disease around the "dentatum" ligament has so far loosened the articulating process that a sudden jerk of the head has dislocated the vertebra and crushed the medulla.

"*Acute Meningitis*"—"*Hydrocephalus*"—*Softening of the Medulla Oblongata and Cord as far as the Fourth Vertebra.*—Peter Groves, aged 10, errand boy at a fishmonger's, admitted June 15. Countenance extremely dull, heavy, and of a dusky hue, as of one deeply narcotised by morphia; brows knitted; eyes half closed, their globes prominent and rolled upwards; pupils dilated, especially the right; slight twist of the mouth, and a flatness of the left half of the face, and this angle of the mouth drawn downwards; nostrils pinched up and inwards, as in sniffing, whilst their bases are depressed outwards and downwards; feeble in the right arm and leg; skin covered with a dirty greasy sweat; pulse full and slow; cannot protrude his tongue, or give any account of his sufferings, but he screams piercingly when moved, as though he was horrified by a sudden seizure of pain; if he is roused for a moment he turns on his side and dozes off immediately; scalp hot and flushed; bowels confined; inability to swallow any fluids. The mother stated that he came home from his situation on the 5th, and was unusually drowsy, but after the action of some aperient medicine which she gave him, he rallied, and went out a little, though he complained of pain at the back of his head. On the 8th he relapsed, and had been lying at home, constantly dosing, ever since. The day before his admission it was observed that he could not hold his teacup in the right hand to drink. Notwithstanding the most active treatment, the child died six days after admission—viz., the 21st.

Post-mortem Examination.—Head: Acute inflammation of the arachnoid over the base of the brain only, with layers of lymph chiefly around the posterior lobes; ventricles bulged out with a large quantity of clear pale serum. The texture of the medullary substance, from the pons Varolii to the spot opposite the fourth cervical vertebra, was acutely inflamed and so broken down that it could not be removed entire; therefore any accurate examination of the several tracts of nervous matter was denied us. No disease whatever was found in either of the other two cavities of the body.

A case somewhat analogous to the above has just passed under our notice. The boy, aged 5, was a fine child, though born of strumous parents, until four months before its death, when a capricious form of slight remittent fever crept on, attended with loss of appetite, sickness, costive bowels, and non-bilious motions. Unequivocal evidences of a scrofulous tumour occupying the substance of the brain now came rapidly on; loss of power in deglutition, occasional convulsions of a frightful nature, piercing screams when moved from side to side, and coma rapidly supervened.

OSTEO-MYELITIS OF THE SKULL.

DEATH FROM PYÆMIA AND THE FORMATION OF FIBRINOUS COAGULA IN THE RIGHT SIDE OF THE HEART.

By J. FAYRER, M.D., F.R.S.E.,
Senior Surgeon, Medical College Hospital, Calcutta.

TARRAMONEY, aged 25, a resident of Hautkholla, in Calcutta, was admitted into the Medical College Hospital, Calcutta, on May 13, 1867, having received a severe injury to the scalp by falling into a well. The accident occurred three days before admission.

There was an extensive lacerated wound of the scalp on the right frontal region. The bone was laid bare to the extent of four by two inches. The pericranium altogether removed, but the bone itself not injured. She complained of a good deal of pain in the head, was feverish, and the bowels were confined. There was restlessness and general *malaise*. No vomiting. The wound was dressed, being cleaned, and the flap adjusted as nearly as possible in its proper place.

An aperient was administered; salines and perfect rest and quiet enjoined; the wound dressed with wet cloths.

14th.—Bowels freely moved; pain in the head diminished; wound looks pretty well; the bone is white and bare, but not dead.

15th.—Less feverish yesterday; pain in the head subsided; took her food better.

16th.—Much the same.

17th.—Improving slowly. The wound is granulating. The flap has retracted and left a considerable portion of the bone exposed. The discharge from the wound is healthy. ℞ Quinine m. gr. iij. to ʒj. ter die.

18th.—Bowels confined; no head symptoms; an aperient ordered, and instructions repeated to see that the bowels are kept freely open.

20th.—Pain over the left orbit; discharge free; wound looks healthy; the bone about the centre of the exposed portion looks dull and dry. In the day she had fever; pain in the head increased; much perspiration; the thermometer standing about 90° in the ward. Salines ordered every third hour.

21st.—Had a rigor this morning; her pulse has been quickening during the last two or three days. The pain in the head and feverishness make us apprehensive that intracranial mischief is occurring. The rigor lasted, the nurse says, for full half an hour; it was followed by sharp fever and sweatings. Much pain in the head, and a certain amount of stupor; is inclined to vomit; pupils natural; the pulse very rapid and weak after the rigor.

22nd.—Had fever last night and one shivering fit; vomited once. In trying to get out of bed she fell down insensible. The bowels have been freely moved; there is much pain in the head; pulse 130, very feeble. The wound still preserves a healthy appearance, but there is less discharge.

Vespere.—Pulse 160; she is in a state of nervous agitation; partially delirious, and sobbing violently; no more rigors, but chilliness; very restless; pupils slightly dilated; constant inclination to vomit.

23rd.—Very restless during the night; wandering; pulse 140; temperature in axilla 105°. Answers questions imperfectly when spoken to. The bowels have acted since last report; no more rigors. I saw her at this time, and, taking all the symptoms into consideration—the rapid pulse and respiration, rigors, high temperature, and delirium tending towards coma, with the pain in the head and the exposed bone, which had a rather suspiciously dry and dull appearance about the centre of the denuded portion—and considering that the symptoms were aggravated and her condition hourly becoming worse, it appeared to me that suppuration must be taking place either in the diploë of the skull or between the bone and the membrane; and as the symptoms of pressure were not marked, the probability was in favour of the former, especially as all the symptoms of pyæmia were setting in with great violence. I therefore applied the trephine over the portion of bone that I have mentioned as being dry, and on reaching the diploë gave exit to a quantity of fetid pus, which gushed out round the instrument. On completing the section of bone, there was no pus found between the dura mater and bone, nor did the appearance of the membrane suggest the existence of any pus beneath it. There was no improvement after the operation. She remained for a time much in the same condition, the breathing grew more hurried, the temperature continued high; she became unconscious, the sphincters relaxed, and she died the same evening.

A post-mortem examination was made on the following morning. On removing the calvarium it was found that the frontal bone was in a complete state of diffused osteo-myelitis, the diploë being infiltrated with fetid pus. There was also a quantity of thin pus under the dura mater diffused over the surface of that side of the brain, but there was none between the skull itself and the dura mater. Two pyæmic patches were found—one in the surface of the middle lobe of the right lung, the other on the left lung; they were rather larger than a pea. Portions of each lung were congested, but a considerable portion of each lung was anæmic and emphysematous. The right auricle and ventricle were plugged with firm adherent fibrinous clots, extending into the pulmonary artery. The liver was healthy; the kidneys and spleen also presented no sign of disease.

Remarks.—This is a good example of osteo-myelitis or diffused suppuration in the cancellated structure of the frontal bone. Death was caused by septic absorption and the consequent devitalised condition of the blood. It would be absurd to suppose that the small pyæmic patches in the lungs were

the cause of death: they were quite incipient. The patient succumbed to other more fatal pathological conditions before the changes in the lungs had time to proceed very far. The actual cause of death was no doubt the interrupted pulmonary circulation, as proved by the presence of firm fibrinous clots in the right side of the heart and the blanched and emphysematous appearance of portions of the lungs. The condition that gave rise to this state of the blood was the septicæmia produced by the suppuration in the diploë of the skull. Such cases as this in former years were said to give rise to abscess in the liver; no doubt they did so occasionally, but the reason why was not then understood as it is now. As in most other cases of osteo-myelitis, the disease set in some time after the injury, and came on insidiously. In this situation it is most fatal, for it is impossible to remove the affected bone. The most we could hope to do would be to give the pus a free drain, in the chance that the suppuration might be limited in extent. I fear we cannot avoid the conclusion that nosocomial influences have much to say to the causation of such cases as this. The woman was healthy enough at the time of the accident, and there was no visceral disease to induce any unfavourable change in the blood. It is a good example of the necessity of closely watching and caring for all wounds involving the scalp, especially where the bone has been exposed, not so much in reference to intracranial mischief as to this suppurative inflammation of the diploë, which is so fatal when it does occur.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES OF CHOLERA.

We are sorry to inform our readers that three cases of cholera, two of them fatal, have occurred at this Hospital. We are able, by the courtesy of Mr. George Mackenzie, to give the detailed particulars of them. These are the only cases, Mr. Mackenzie assures us, of genuine cholera which have been admitted into the Hospital this year. To one of them a brief allusion was made in our editorial columns last week. The following details are given as supplied to us by Mr. Mackenzie:

Case of Cholera—Death—Autopsy.

(Under the care of Dr. DAVIES.)

S. B., aged 31, washerwoman, admitted 8 15 a.m. August 27, from 18, Wellington-street, Bethnal-green. She had been taken ill the day before at 8 a.m. with purging and retching, but had not vomited. She also said she had pain in the stomach and cramps in the legs. Countenance anxious, face and lips livid; eyes sunken; tongue whitish and cold; hands cold, blue, and shrivelled; pulse can just be felt; voice somewhat whispering and husky.

28th.—Yesterday she passed a characteristic stool, but no urine. To-day she passes everything in the bed; the motions are of a light clay colour; has vomited some greenish matter; pulse much stronger and quicker.

29th.—Says she is no better; face slightly flushed; tongue dry; has passed almost pure bile in the motions; breath quicker; is very thirsty; complains of pain in the front of the chest; hands cold.

30th.—Pulse fuller, very compressible; eyes sunken; tongue dry and parched; very sleepy; vomits frequently a turbid green fluid; evacuations nearly all bile. Says she feels better; arms and chest mottled; eyes congested. Says she has passed water, but on introducing a catheter no water was found in the bladder. A catheter had been introduced with the same result twice a day ever since she had been in.

31st.—Says she is no better; breathing laboured; tongue dry; bowels still open, and the same character; complains of a pain in the throat; voice whispering; urine drawn off by catheter of good quantity, pale green in colour, slightly turbid; sp. gr. 1009; albumen $\frac{1}{2}$.

September 2.—Is much the same; she says that menstruation has come on.

3rd.—Looks haggard; hands cold; breathing very laboured; dulness on percussion over lower half of right lung behind; is very restless; has passed a very small solid motion; does not vomit. Ordered beef-tea and brandy enemata. Died at 9 p.m.

Autopsy by Dr. Sutton.—Pleuræ adherent at left apex; lungs collapsed, especially right; right lung weighs 1 lb. 9 oz.; left, 1 lb. 4 oz. Right: Numerous spots of ecchymosis beneath the pleura over lower two-thirds of lung, and patches of extravasated blood. The middle lobe is solid, sinks in water, easily breaks down, and exudes on pressure a quantity of dirty-looking pus. Upper lobe is soft; lower lobe very much congested, and readily breaks down. In the left are a great many ecchymoses beneath the pleura. This lung is much congested; tissue softer than usual. Bronchial tubes very much congested, and beneath the mucous membrane a number of minute spots that look like ecchymoses. Heart: Left ventricle not firmly contracted. Liver: 3 lb. 12 oz.; looks pale; apparently fatty; not congested; gall-bladder contains 2 oz. of bile of a pale green colour. Spleen: 5 oz.; soft and pale. Kidneys: 15¼ oz.; left capsules separate readily; surface mottled in parts, where so yellowish and slightly raised above the surface, otherwise smooth; cortical portion increased in size, of a pinkish fawn colour; medullary of a claret colour. Right: Smaller than left; not mottled; in other respects corresponds to the other kidney. Stomach contains a yellow glutinous material. Duodenum contains bile-stained mucus; mucous membrane congested. Jejunum and ileum contain bile-stained fluid; mucous membrane congested; lower part of ileum very much congested, of a port-wine colour. Large intestine contains fluid feculent matter; slightly congested.

	Temperature.	Pulse.	Respiration.
Aug. 27th, Morning .	95·2	92	52
,, ,, Evening .	98·8	80	32
,, 28th, Morning .	96·6	76	30
,, ,, Evening .	98·8	120	28
,, 29th, Morning .	97·8	116	32
,, ,, Evening .	96·2	104	40
,, 30th . . .	96	96	28
,, 31st, Morning .	98·2	88	40
,, ,, Evening .	98·2	84	24
Sept. 1st, Morning .	97	80	28
,, ,, Evening .	99·4	92	48
,, 2nd, Morning .	97	88	28
,, ,, Evening .	97·8	92	28
,, 3rd, Morning .	96·2	46	40
,, ,, Evening .	98	80	42

Cholera—Favourable Progress.

(Under the care of Dr. HUGHLINGS JACKSON.)

Emma S., aged 45, married; admitted 7.50 a.m., September 1, from 51, Flower-and-Dean-street, Spitalfields. Went to bed quite well, and was taken at 4 a.m. with vomiting and purging, soon followed by cramps in the stomach. She described the matter from the stomach and bowels as very light in character. She has had an abscess in the finger for the last three weeks, and has felt ill all the time. Face and lips livid, eyes sunken, extremities cold, hands blue and shrivelled, countenance pinched and anxious, tongue coated and cold, voice weak, pulse scarcely perceptible. She was screaming with the cramps in her legs. Just after admission she passed a watery stool, with a copious flocculent deposit. She was immediately put into a warm bath, and remained in ten minutes. After she came out her temperature was taken with the pulse, and gave a rather high result. The cramp soon ceased, and she rapidly passed into reaction.

2nd.—She has been a little sick to-day, and the bowels have been open, dark-coloured; has passed a little water.

3rd.—Has to-day passed a small solid motion of a light colour; says she is not so well; eyes sunken still, voice weak, face natural.

	Temperature.	Pulse.	Respiration.
Sept. 1st. Morning .	99	112	24
,, ,, 2 p.m. .	97	96	28
,, ,, Evening .	99	104	24
,, 2nd. Morning .	97·8	96	24
,, ,, Evening .	97·4	84	24
,, 3rd. Morning .	96·6	84	24
,, ,, Evening .	97	68	24

The above was, Mr. Mackenzie remarks, comparatively a mild case, and the reaction in consequence was not severe or prolonged; but the symptoms, when she was admitted, were so well marked and characteristic that there could not be a doubt as to its being cholera. The patient seemed to derive considerable benefit from the bath, but it is to be remarked that it was one of those mild cases that would probably have done well on any treatment.

(Under the care of Dr. SUTTON.)

Case 3.—G. R., aged 29, labourer, of 18, Somerford-street, Bethnal-green, admitted September 2, at 12.30 p.m. He had been taken with diarrhœa four days previously, with vomiting and pains in the legs. This went on till his admission, and his friends said that both the vomited matter and the motions were continually black. His face was reddish blue, lips livid, eyes very sunken, tongue quite cold; pulse could just be felt, hands very cold and blue, skin moist; extremities felt damp; temperature 98, pulse 84, respiration 26. His voice was tolerably good, and he kept his eyes open, and answered pretty freely. Just after admission passed a motion like pitch in colour, and very liquid in consistence. 2.30: Tongue quite cold, furred, and yellow; no pulse could be felt at the wrist; apex beat very distinct, the impulse against the wall of the chest distinct, first sound inaudible; abdomen somewhat distended; no vomiting since admission; voice choleraic. 8 p.m.: Is no better, but says that he shall get well; very wakeful, eyes wide open, pupils natural; tongue covered with a yellow fur, cold and clammy; hands cold and not particularly livid; has sweated a good deal; has been purged nine or ten times since admission; no vomiting; respiration laboured, lips livid, eyes sunken, features pinched, complexion reddish blue. He died an hour and a half afterwards.

Autopsy.—The following particulars were taken from Dr. Sutton's report:—Pleuræ: Left adherent. Right lung weighs 17½ oz.; left, 14½ oz. Lungs not collapsed; no ecchymosis on surface; a section of a dark red colour all over. Lung tissue soft, and readily breaks down. Heart: Left ventricle not very firmly contracted; the right contains a partially decolorised clot of a moderate size. Liver: 2 lb. 15 oz.; pale and soft; bile in gall-ducts. Gall-bladder contains dark bile. Kidneys: 10½ oz. Capsule does not separate readily; stellate veins very distinct; cortical portion fawn-coloured; medullary of a pale claret colour. Spleen: 10 oz.; is firm, and of a deep red colour. Stomach: Contains a quantity of thick gelatinous bile-stained substance of an olive-green colour. Duodenum: Bile-stained, and contains a thickish bile-stained fluid. Jejunum in the same condition. Ileum: In the upper part of a dark red colour, like port wine; uniformly as if blood-stained, and this extends for a distance of eight or nine inches, and in this part of the bowel there is a blood-stained fluid lower down. Mucous membrane is natural, and contains a bile-coloured fluid. Cæcum and large intestine in a similar condition. Bladder: Contracted; contained a teaspoonful of a thick milky-looking fluid.

Remarks by Dr. Sutton.—This case is a very good example of cholera with bloody evacuation. The symptoms very strikingly seen a few hours before death are such as are usually noticed in this class of cases. His complexion was of a nearly natural colour, with a bluish or venous hue. The body was everywhere warm, excepting his hands and tongue; the temperature, as indicated by the thermometer, was 98° in the axilla; the lips were livid, and hands of a livid red, yet all this time the patient was absolutely pulseless at the wrist. The pulseless condition, with the almost natural temperature and complexion, is what is seen in the cases in which there are bloody evacuations. The notes show that he remained in this condition some hours; his breathing became accelerated and laboured, and then he died. The appearances after death were such as are usually seen in patients who have had bloody evacuations. The intestines contained a quantity of bile-stained fluid substance throughout, with the exception of the lower part of the ileum, where there was a dirty and bloody fluid, and here the mucous membrane was of a port-wine colour, and was extremely congested and blood-stained. The kidneys, in the congested appearance of the medullary portion and the enlarged stellate surface veins, resemble what is seen in collapse; the fawn-coloured cortical part is what is seen in reaction.

CATTLE PLAGUE INQUIRY.—For the week ending August 31 one fresh outbreak has been reported—viz., at Bermondsey, in the district of Southwark. Two cases of cattle plague are reported to have occurred during the week, being an increase of one on the previous return. Both the diseased animals were killed. There were ten healthy cattle slaughtered to prevent the spread of the disease. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,926, and 56,911 healthy cattle have been slaughtered to prevent the spread of the disease.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 7, 1867.

THE CHOLERA AT MALTA.

THE telegram from Malta, dated August 31, announcing that nine persons have been attacked with symptoms resembling cholera, and that out of this number six have died, comes upon us with ominous significance. The devastation caused by this disease in Sicily and Italy has for some time been the subject of remark. That it should now reappear in an island in direct connexion with ourselves, garrisoned by English troops, is a subject for grave consideration. It is well known how much Malta suffered from this disease in 1865; it has also been observed that there has scarcely ever been an epidemic of cholera in the eastern basin of the Mediterranean, or in the beaten path of commerce, that has not sooner or later found its way to Malta. It appears only too probable that another instance of the truth of this observation is about to be presented to us.

Dr. Sutherland, in his recent official "Report on the Sanitary Condition of Malta and Gozo, with reference to the Epidemic Cholera in the Year 1865," gives a long account of the bad hygienic condition of that island, as respects towns, villages, and barracks. That his representations on this subject may be the means of inducing the Government to direct their attention to the removal of all such auxiliaries to epidemic diseases, we fervently hope; but it is only just to our Medical brethren in the public services to remind the Profession and the public that it is not to Dr. Sutherland alone that the credit of bringing to light the unhealthy condition of Malta should belong. Ever since Malta has been occupied as a military station (if we may credit the statements made to us) the insufficient accommodation and the defective state of its barracks have been the subject of frequent report and remonstrance by Army Medical officers. That these should have so long existed is no fault of those servants of Government there employed; and now, as a remedy will probably be applied, it is only fair that, as Medical journalists, we should give a fair share of the credit to that important branch of our Profession.

While wishing Dr. Sutherland all success in his crusade against filth, overcrowding, and scanty supplies of bad water, we must at the same time remind our readers of the fact that in most large cities we have these always with us, yet cholera we have not always. There must be something over and above these to complete the list of factors of an epidemic of cholera or of any other disease. Dr. Graves says:—"No matter how crowded people may be together; no matter how wretched their condition; no matter how bad the ventilation, even though it should approach to that of the Black Hole of Calcutta: still the combination of all these malign influences is incapable of giving rise to either measles, scarlatina, small-pox, hooping-cough, or, I will add, cholera. Had they been capable of producing cholera, it would not have been of such recent date among us." What the necessary link may be in the causation of cholera—whether the inhalation of fungoid spores, or the imbibition of fæcal ferments, or any other of the thousand and one other elements suggested as supplying the missing link—the fact remains, as admitted even by Dr.

Sutherland (who is a decided non-contagionist), that "when cholera exists in a given population it can be moved with it."

The *materies morbi* being so portable, and there being so many positive facts in favour of cholera appearing among a hitherto healthy population on being imported by an infected one, we are forced to the conclusion, notwithstanding apparent *negative* facts to the contrary, that the personal contact completes the circuit necessary for the establishment of the choleraic current from the infected to the healthy.

Dr. Sutherland's great objection to admitting the communicability of cholera and epidemic diseases by personal contact is the dread that the logical conclusion of such a doctrine would be the prevention of personal intercourse, the complete interruption of commerce, and the neglect of humane care and treatment of the sick, when epidemic diseases prevail or are suspected to exist.

Now this is all very true when directed as an argument against those who maintain contagion to be the sole agent in the etiology of cholera. These are, however, a very small minority in our Profession—so small, indeed, as to be still quite "unrepresented." But is it the whole truth, when used against those who maintain that there is a "something" which can be conveyed from place to place, and which, on meeting a suitable soil becomes developed into cholera?

From Dr. Sutherland's official position, any opinion of his will naturally be received by a portion of the public as coming from one speaking with authority; we are therefore anxious that it should still be understood that, notwithstanding the connexion of Dr. Sutherland with the Government, he is only the exponent of the opinions of a portion of our Profession, and that, although published in a Blue Book at Government expense, his opinion is not shared by the majority of Medical observers.

STATISTIQUE MÉDICALE DE L'ARMÉE FRANÇAISE PENDANT L'ANNÉE 1865.

The Medical statistics of the French army for the year 1865 have just been published; those of our own army for the same year have not yet appeared, but this can be fairly accounted for when we take into consideration the greater dispersion of our troops in our numerous foreign possessions.

The French military Hospital system differs from that in force in our army, by division of the sick into three classes; namely:—

1st. *Malades aux Hôpitaux*, or those regularly admitted into and treated in Hospital.

2nd. *Malades à l'Infirmerie*, or those who attend as dispensary or out patients, and are exempted from duty.

3rd. *Malades à la Chambre*, or those who, for trifling ailments, undergo treatment in their barrack rooms, and at the same time take their turn of military duties.

There is a further difference, that the strength of the French army is calculated as including officers and men, as well as the native African portion of the Corps d'Algérie, so that the sickness and mortality of all these classes appear in their returns, while in ours the cases of officers are excluded, and diseases affecting black troops are given separately.

The following table is compiled from the report under notice:—

	Annual Mean Present Strength.	Admitted into Hospital.	Rate per 1000.	Annual Mean Strength, omitting Corps without Infirmaries; also Officers.*	Treated à l'Infirmerie.	Rate per 1000.	Annual Mean Strength.	Treated à la Chambre.	Rate per 1000.	Total Treated.	Rate per 1000.
France	228,194	75,862	332	205,251	65,464	319	228,194	393,212	1,723	534,538	2,342
Algeria†	66,020	39,731	602	37,035	5,912	160	66,020	134,655	2,040	180,298	2,730
Italy	11,119	4,851	436	10,465	2,849	272	11,119	24,787	2,229	32,487	2,921
Penitentiaries & Workshops	2,755	3,184	1,155	2,189	835	381	2,755	14,294	5,188	18,313	6,647
	‡308,088	123,628	401	254,940	75,060	294	308,088	566,948	1,840	765,636	2,485
† Corps d'Algérie	23,149	13,246	572	8,420	1,644	195	23,149	42,502	1,836	57,392	2,479
Corps de France en Algérie	42,871	26,485	618	28,615	4,268	149	42,871	92,153	2,150	122,906	2,865

* Officers are not treated à l'Infirmerie.

‡ The annual mean *effective* strength was 348,968.

As the same man may appear successively in each of the classes of sick for the same affection, having possibly before his admission into Hospital, been under treatment both *à la chambre* and *à l'infirmerie*, there is an obvious source of error in these numbers which it is important to be able to eliminate. This has been done for the first time in the present report, and 91,245 of the sick come under the aforesaid conditions, and the true total of sick treated becomes 674,391, and the proportions fall to 1941 per 1000 of effective strength, and 2188 per 1000 of annual mean present strength. The most important number—namely, that of the sick treated in Hospital—is not touched, it is true, by this correction, which only affects the numerical to the exclusion of the Medical element. The several rates per 1000 of annual mean present strength of men treated, as distinguished from cases of sickness, are as follows:—

	Strength.	Treated.	Rate per 1000.
France	228,194	476,829	2,090
Algeria	66,020	154,297	2,337
Italy	11,119	27,825	2,503
Penitentiaries and workshops	2,755	15,440	5,604
	308,088	674,391	2,188

If from the above we omit troops serving in Algeria and the inmates of the penitentiaries and workshops, we shall have to deal with a body of men placed in circumstances sufficiently resembling those of our own army serving at home, to admit of a fair comparison between them, and find that in a strength of 239,313 there were 504,654 men treated, being in the proportion of 2108 per 1000. During the four years from 1860 to 1863(a) the proportion of admissions into the Hospitals of the British army serving in the United Kingdom was 1010 per 1000 of the strength, and this includes the many cases in which men have been readmitted for the same diseases, as also those suffering under the most trifling ailments. The difference appears enormous, and the explanation is, that in the French returns cases appear in which a soldier attends at Hospital for some trifling ailment, gets a dose of medicine, returns to barracks, and appears in the number of those treated *à la chambre*, such cases never appearing in the Hospital records of our army.

Of the 765,636 sick treated in the Hospitals, in the Infirmaries, and in the barrack-rooms, 36,657 were for syphilis, being in the proportion of 118 per 1000 of the mean present

(a) See Annual Statistical Sanitary and Medical Report of the British Army for 1864.

strength, and 48 per 1000 of the sick; or, making the necessary deductions of men already treated in their rooms and at the Dispensary before their admission, 31,918—that is to say, 103 per 1000 of mean present strength and 47 per 1000 of the sick—were treated in Hospital.

But this refers only to the more serious or complicated forms of primary and secondary syphilis; simple cases being treated in the Infirmaries or barrack-rooms, many are there cured without going into Hospital or appearing in the returns. In our army every case of venereal sore coming under the observation of the Surgeon is admitted into Hospital. This difference of system in the two armies has been before pointed out as rendering extremely difficult, if not impossible, any comparison of the relative prevalence of venereal diseases.(b)

In order to attain a proximate comparison on this point, we have deducted from the statistical report of our army for 1864 (Appendix No. 1, page 163), that in a strength of 63,153 men serving in the United Kingdom there were 7804 admissions into Hospital for primary and secondary syphilis, being in the proportion of 123 per 1000. We think that, taking into consideration the unknown number of men in the French army who are cured, in the Infirmaries and in the barrack-rooms, of the slighter forms of disease, it must be admitted that our army very fairly stands the comparison with the French as to the prevalence of syphilis. Gonorrhœa, acute or chronic, without complication, is in the French army treated in the regimental Infirmaries, and does not appear in the returns among the causes of admission into Hospital, so that we have no means of judging of the extent to which it prevails.

The total death-rate during the year 1865 in the French army was 12·65 per 1000; in France it was 11·78, in Algeria it was 16·32, and in Italy 9·30; deducting 590 deaths from cholera, and 26 killed in action, the proportion is 10·88 per 1000.

The most frequent cause of death was typhoid fever, which carried off 2·10 per 1000 of effective strength, the proportion being 4·83 in the first year of service, and reduced to ·16 after the twelfth year.

This may be accounted for by the change in the ordinary habits of the young soldiers and their being congregated in masses in barracks—a circumstance at all times injurious to health, but especially so to young men drawn by conscription from the rural population.

In the French army there is stated to be a general decrease of mortality with increase of length of service; in our army the contrary rule holds. In the statistical reports of our army for 1863 and 1864 this subject is considered, and the probable cause of the apparent difference is fully given.

Phthisis and chronic bronchitis united, caused a proportion of deaths of 2·41 per 1000—about the same as in our own army—the first year of service showing deaths from this cause in the proportion of 1·36. Cholera carried off 1·66 per 1000, and, omitting the troops in Italy, 1·72 per 1000. The total loss to the French army by deaths and discharge was 19·45 per 1000.

The death-rate of our army at home in 1864 was 9·99 per 1000, a good deal lower than that of the French army in 1865. But, on the other hand, the rate of invaliding in our army was 31·74 per 1000 in 1864, while in the French army in 1865 it was only 6·80 per 1000.

THE ROYAL INFIRMARY FOR DISEASES OF THE CHEST.

We have hitherto refrained from expressing any opinion on the correspondence which is just now filling our columns on the allied subjects of the resignation of a large part of the Medical staff of the Royal Infirmary for Diseases of the Chest, City-road, and the distribution of diet handbills bearing his own name by one of the Physicians to that institution. As we have said, the two subjects are allied, for there can be no doubt that a principal, although not the sole, reason for the resignation of Drs. Richardson, Leared, and Powell, has been the ill-advised method chosen by Dr. Dobell to give recommendations which intrinsically, whatever may be thought of their scientific value, fall at least within the circle of the orthodox in Medicine. Not even the most jealous for Professional etiquette could object to a list of articles of diet, supposed to be suitable to his case, being given by a Physician to his patient. In the present instance, however, objection is fairly raised by the fact that the handbills were headed by the name of one, and he the only, Physician who used them, and were scattered, necessarily indiscriminately, in a populous neighbourhood through the machinery of the out-patient department of a public charity. We readily admit that such a mode of giving directions to patients may have been simply adopted without any sinister thought or intention, and we are glad to see that Dr. Dobell has intimated his wish to the Council of the Royal Infirmary for Diseases of the Chest that the objectionable portion of the bill should be omitted for the future. But, on the other hand, we conceive that the proceeding in question was one well calculated to offend the Professional sensibilities of his colleagues, and may be held to constitute an ostensible breach of that law of Professional ethics which forbids all undue attempts to obtain notoriety. This is probably not the light in which Dr. Dobell viewed the matter when he issued the handbills, but it is certainly that which would strike any disinterested Medical spectator. It will be seen, from the correspondence which we publish to-day, that the Council of the Royal Infirmary for Diseases of the Chest have accepted the resignation of Dr. Richardson and his colleagues with a studied discourtesy which certainly was not suggested by the terms of their resignation. We give Drs. Richardson, Leared, and Powell full credit for having acted in this matter with the purest intention of supporting unsullied Professional honour, and we conceive that the Council of the institution have taken the best course to prevent independent Physicians of standing from offering to fill their vacant places.

THE WEEK.

TOPICS OF THE DAY.

The reports of the health of the Princess of Wales are reassuring. Her Royal Highness continues at Wiesbaden, under the care of Mr. Paget. She is beginning to walk in her room, and she is said to be regaining flesh.

Another case of death accelerated by travelling on the Underground Railway is reported. A young woman, the subject of aortic disease, took a ticket at the Bishop's-road Station. She soon complained of the "dreadful smell;" she fainted, and died on reaching King's-cross. We are glad to hear that these cases have determined the directors to appoint a Medical committee to report upon the state of the air in the line, although it might be urged by those who are unfortunate enough frequently to travel by it that the state of the air is sufficiently evident, and the great consideration is the means of purifying it.

The telegram which announces that King Theodore has ordered the liberation of the captives on the petition of the Archbishop Isaac will not, it is said, be allowed to interfere in any degree with the preparations for the campaign. The Army Medical authorities are fully alive to the responsibility which rests upon them, and we are confident that, should the force sail, the physical well-being of the men will be secured by the employment of all the resources of modern science.

The correspondence between Pascal and Newton lately brought before the French Academy by M. Chasles, and published in the *Comptes Rendus*, is pronounced by Sir David Brewster, the biographer of Sir Isaac Newton, who is familiar with his authentic letters, in the possession of the

(b) Statistical Sanitary and Medical Report of the British Army for 1862, p. 153.

Earl of Portsmouth, to be a forgery. The letters to Pascal are in French; Sir Isaac Newton always wrote to scientific correspondents in Latin. M. Faugère, the editor of Pascal's works, asserts also that the letters purporting to be written by Pascal are not in his handwriting; and as M. Chasles refuses to say from whom he obtained the letters, the whole transaction can only be regarded as an impudent attempt to "convey," as ancient Pistol would call it, a part of Newton's glory to the other side of the Channel.

The University of London is to have a temporary lodging at 17, Savile-row, whither it will remove at Michaelmas. The necessary demolition to make room for the new buildings for the accommodation of the scientific societies will then be commenced.

There are vacancies in the post of Physician to the Royal Free Hospital, Gray's Inn-road, in the Chair of Medicine in the Hull School, and in the office of Physician to the Infirmary, and in the Chair of Philosophy in Queen's College, Belfast. The election at the Royal Free Hospital will take place on October 10. Testimonials of candidates for the Belfast Professorship are to be sent to the Under-Secretary for Ireland, Dublin Castle, by the 20th inst.

DISCOVERY OF A NEW GENERAL ANÆSTHETIC.

Dr. Richardson takes with him to the meeting of the British Association for the Advancement of Science a new general anæsthetic. The fluid is a bichloride of methylene, its composition being on the new formula CH_2Cl_2. The substance has an odour as sweet as that of chloroform, but it boils at 88° Fahr., whereas chloroform, the terchloride of methylene, requires a temperature of 142° for boiling. The bichloride of methylene rapidly and easily narcotises animals to perfect anæsthesia. It causes scarcely any excitement, and recovery is most perfect. In action it seems to combine the properties of chloroform and of ether, but it is more readily administered than either, and its effects are more permanent. In a future number we shall give a more detailed account of all the facts regarding this substance. We notice it now as forming part of the report on the methyl series about to be presented by Dr. Richardson to the British Association, in continuation of his former reports on the amyl and the ethyl compounds.

MARRIED SOLDIERS.

If it has hitherto been considered a reproach to be "a soldier's wife," the regulations controlling the marriage of the men are entirely answerable for the stigma. Not only has the number of men in each regiment permitted to marry been miserably small, but the provisions made in barracks for the housing of their families were not only niggardly, but were, in truth, without regard to decency. We are glad to perceive, therefore, that, under the order which has just been published, a better state of things is likely to be established. Whereas, under the old regulations, the number of soldiers married "with leave" was limited to the staff sergeants, to two sergeants per troop or company, and to four of the corporals and privates per company of sixty men, under the new provision the permission to marry is extended to six out of every ten of the sergeants of each troop, and to 7 per cent. of corporals and privates. In addition to these changes, we find that, so far as is possible, it is intended to give the men separate rooms—a provision for decency which is a great reform upon the old method of huddling the married couples together, and compelling those who had any sense of shame to suspend their blankets as partitions between the several families who thus ate, slept, and lived in the one common room. Whether these changes will effect much towards increasing the morality of the soldier, we cannot say, but at all events they must be regarded as steps in the right direction. They may, too, be only those shadows of future reform which we may anticipate from an enlightened and earnest administration of affairs military.

THE UNDERGROUND RAILWAY.

Though the sanitary arrangements of the stations and tunnels of this line are far from being what they should be, it must be confessed that the voice of the "liners," as lifted up in some of our contemporaries, was unnecessarily loud. We think that if, in the "multitude of counsellors" who have addressed the public on the subject, some had suggested more and complained less, it would have been better. However, the Company is now taking active measures to satisfy the demands of hygiene, and have requested Dr. Letheby, Dr. Whitmore (the Medical Officer of Health of Marylebone), and Dr. Bachhoffner to make a thorough investigation and report to them the results arrived at. In the meantime, the Company is doing all in its power to admit fresh air to the stations. At Baker-street, and we believe also at other points, workmen have been engaged in large numbers in opening up channels for the temporary admission of pure air. We may soon hope for the report of the gentlemen selected by the Company; but awaiting it, we may remark that either or both of two schemes may be adopted for the ventilation of the line. By what is known as the *plenum* method fresh air may be forced in, and by the vacuum mode the foul air may be withdrawn. Perhaps the best plan would be a combination of the two. Engines of a few horse power might be employed to work rotatory fans for the propulsion of air into the stations, and the foul air shaft might be connected with the furnace of the engine, and have by this means a very powerful outdraught produced. As types of the two schemes, we may select the Reform Club and the House of Commons, the former representing the *plenum*, and the latter the *vacuum* principle.

MERCHANT SEAMEN.

The Duke of Richmond's Bill comes not a day too soon. A sad instance of the barbarity of a ship captain has been reported, and shows the necessity for an effort to improve the condition of the masters as well as the men of the merchant service. In a ship which came into the West India Docks on Friday was a poor sailor suffering from a large ulcer of the leg of four months' standing. The *Dreadnought* lies about half a mile from the docks, and though the poor sufferer begged to be sent on board at once, he was detained by the captain for forty-eight hours, during which time he received as diet only tea and bread and water. At the expiration of this time, he was sent to the Hospital ship. And how? He was carried down to the river and thrown into a waterman's boat, without any one to attend to him. He had to be hoisted on board the Surgical deck of the vessel, so exhausted and bloodless was his condition. Captain Toynbee and other philanthropists have been doing much to benefit "poor Jack;" but we think they might now turn their attention to the officers of merchant ships, who, though sometimes both intelligent and humane, are more commonly brutes of the lowest order—drunken and cruel, and utterly regardless of human suffering.

THE BERLIN LABORATORY.

The imposing block of buildings which is to form the colossal laboratory of the University of Berlin rapidly approaches completion. It is on a larger scale than the sister institution in Bonn, and is estimated to cost, when finished, more than £30,000. In point of architecture it may be said to belong to the Italian Renaissance, its principal front containing bas-reliefs of Cavendish, Davy, Dalton, Berthollet, Gay-Lussac, Scheele, Gmelin, Berzelius, Mitscherlich, Lavoisier, Priestly, H. Rose, and Klaproth. The lecture-rooms do not appear to be in proportion to the rest of the building; these are two in number—a larger, which will contain only 250 persons, and a smaller one. In one of the halls it is proposed to place busts of four of the most distinguished living chemists. It is gratifying to know that the noblest of our philosophers—now no more—is one of the four, J. B. Dumas, Wöhler, Liebig, and

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Faraday being those now proposed. Every conceivable want on the part of the working chemist has been considered, and, while there are numerous rooms for conducting analyses and organic combustions, there are special apartments allotted to investigations liable to be attended by explosions or other accidents of a dangerous character. What an elysium for chemists this seems when contrasted with the small, commonplace, and inconvenient institution which we are accustomed to honour with the name of College of Chemistry!

THE NAVAL HOSPITAL AT STONEHOUSE.

On Saturday the Board of the Admiralty paid a visit of inspection to this institution. They were under the superintendence of Captain Tatham, and were received by Dr. Stewart, Inspector-General of Hospitals; Dr. Beith, Deputy-Inspector-General; Staff-Surgeon Pottinger; and Mr. Nettleton, Assistant-Surgeon. The Board submitted the Hospital to a careful scrutiny, going carefully over the wards, and examining the sanitary arrangements and questioning the patients. Everything appeared to give them entire satisfaction, the patients expressing their gratitude for the kindness and attention shown them by both the Doctors and nurses. The methods of ventilation formed the subject of an especial examination, and were found to be thoroughly efficient, and productive of no inconvenience to the patients. The report was altogether most favourable to the Hospital authorities.

FOUL FISH.

The *Field* has called attention to a sanitary question of some importance in an article on the "fish-curers" of some of the districts of London. It seems that in very many of the more populous parts of the city dealers in fish are accustomed to "deodorise" and otherwise "doctor" stinking fish so as to render them saleable to the working classes, the practice being especially adopted with such fish as turbot, plaice, sole, and brill. Our own experience tells us that this statement is to a certain extent perfectly true. It is much to be deplored that such flagrant instances of dishonesty should occur; but that they do happen, and that they ought to be provided against, are facts that cannot be denied. There can be no form of food more objectionable than decomposed or putrid fish, and this is especially true in a season when diarrhœa is so prevalent. The suggestion of our contemporary that all fishmongers should be brought under inspection is an excellent one, and we hope to see it carried into execution. Deodorisation may remove the unpleasant smell of bad fish, but it by no means destroys its unwholesome properties. Let the housewives know this, and they may then depend more on the eye than the nostril, and may thus defy the vendors of bad, though not of "stinking fish."

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THIRTY-SEVENTH ANNUAL MEETING—DUNDEE, 1867.

(*From our Special Correspondent.*)

DUNDEE, September 4.

I have only time to-day to report to you that the business of the thirty-seventh meeting of the British Association has commenced in right good earnest, and promises well. Bonnie Dundee is all alive, her streets with their flags up, her people with their bonnets up, as ought to be. At one o'clock the General Council met and transacted a large amount of business. Some of the reports read before the Council from various committees are really great public documents. The most interesting of these reports is the one from the committee appointed to consider the best means for promoting scientific education in schools. The committee urge—

That general education in schools ought to include some training in science is an opinion that has been strongly urged on the following grounds:—

As providing the best discipline in observation and collection of facts, in the combination of inductive with deductive reasoning, and in accuracy both of thought and language.

Because it is found in practice to remedy some of the defects of the ordinary school education. Many boys on whom the ordinary school studies produce very slight effect, are stimulated and improved by instruction in science; and it is found to be a most valuable element in the education of those who show special aptitude for literary culture.

Because the methods and results of science have so profoundly affected all the philosophical thought of the age that an educated man is under a very great disadvantage if he is unacquainted with them.

Because very great intellectual pleasure is derived in after life from even a moderate acquaintance with science.

On grounds of practical utility as materially affecting the present position and future progress of civilisation.

This opinion is fully supported by the popular judgment. All who have much to do with the parents of boys in the upper classes of life are aware that, as a rule, they value edution in science on some or all of the grounds above stated.

4. There are difficulties in the way of introducing science into schools; and we shall make some remarks on them. They will be found, we believe, to be by no means insuperable.(a)

These views will, I am sure, be received by the members of the Medical Profession with hearty commendation, as will also the following conclusions:—

i. That in all schools natural science be one of the subjects to be taught, and that in every public school at least one natural science master be appointed for the purpose.

ii. That at least three hours a week be devoted to such scientific instruction.

iii. That natural science should be placed on an equal footing with mathematics and modern languages in affecting promotions, and in winning honours and prizes.

iv. That some knowledge of arithmetic should be required for admission into all public schools.

v. That the universities and colleges be invited to assist in the introduction of scientific education, by making natural science a subject of examination, either at matriculation, or at an early period of a university career.

vi. That the importance of appointing lecturers in science, and offering entrance scholarships, exhibitions, and fellowships for the encouragement of scientific attainments, be represented to the authorities of the colleges.

There is another report bearing on the same topic from the Parliamentary Committee, in which the members of the Committee have to express their regret that the Public Schools Bill has again failed to obtain the sanction of the Legislature; but it is a subject for congratulation that the discussions in Parliament and elsewhere, which have followed its introduction, have already borne fruit. The attention of the public appears to have been awakened to the necessity for introducing scientific teaching into our schools, if we are not willing to sink into a condition of inferiority as regards both intellectual culture and skill in art, when compared with foreign nations. The voluntary efforts of the masters of two of our great schools to add instruction in natural science to the ordinary classical course are deserving of all praise; and some evidence of their success may be derived from the interesting fact—disclosed in the able report of the Committee appointed by the Council of the Association to consider this subject—that some of the boys at Harrow have formed themselves into a voluntary association for the pursuit of science.

The Committee have communicated to the Lord Chancellor the reports of the Committee on scientific evidence in courts of law, and his lordship has promised to consider the subject during the recess.

There is also in the report of the Kew Committee a notice of two new instruments for meteorology, called the thermograph and the barograph, which appear to answer well.

Amongst the Medical men present already we notice, Drs. Sharpey, Cobbold, Foster, Ransom, Sir Duncan Gibb, Drs. Hughes Bennett, John Davy, Richardson, O'Callaghan, and Heaton, with Professor Turner Macdonald, Mr. Nunneley, and others. This year the section of biology, to be presided over by Dr. Sharpey, will be divided into two departments—

(a) The Committee consisted of the general officers of the Association, the trustees, the Rev. F. W. Farrar, M.A., F.R.S., Rev. T. N. Hutchinson, M.A., Professor Huxley, F.R.S., Mr. Payne, Professor Tyndall, F.R.S., and Mr. J. Wilson, M.A.

(*a*) Anatomy and Physiology; (*b*) Zoology and Botany. Dr. Sharpey, as President of the section, will keep to section (*a*), and Professor Busk will preside over section (*b*). Many papers to both sections are already received.

THE CHOLERA EPIDEMIC IN PARIS.

The following particulars, furnished by M. Besnier to the Société Médicale des Hôpitaux, gathered from observations made in the Paris Hospitals, have appeared to us likely to interest our readers:—

"The epidemic of 1866 resembled that of 1832 in the rapidity of its evolution. Suddenness of attack and frequency of rapidly fatal cases were observed generally. The disease consequently exhibited a shorter mean duration and more fatal results than in 1849 or 1853-4. One peculiarity which distinguishes this epidemic from all others, whether of cholera or not, is that the gravity of the cases has not lessened in the same proportion as the number of attacks. Thus, towards the last, when the admissions into the Hospitals were considerably reduced, cases were met with as resistent to all therapeutic appliances and as rapidly fatal as in the height of the epidemic.

"*Premonitory Diarrhœa.*—This symptom is certainly less constant than is generally supposed, as the following statistics prove:—Among 200 patients, M. Horteloup has seen it wanting 89 times; out of 34 cases, M. Mesnet has seen cholera established without warning 22 times. At St. Louis, in the practice of M. Hardy, there were four cases originating in the Hospital, and all these were suddenly attacked. M. Oulmont, at Lariboisière, in fifty patients, notes that initial diarrhœa was wanting eighteen times. Finally, at Neckar, M. Potain notes that twelve out of twenty-five patients presented no prodroma at all, and that on two occasions cholera set in with cramps, the vomiting and diarrhœa only supervening an hour or two later.

"This suddenness of attack, which we might be tempted to regard as a distinctive character of the present epidemic, showed itself equally in preceding epidemics. Indeed, according to M. Blondel's report of the epidemic of 1853-4, premonitory diarrhœa showed itself 4359 times out of 4740 patients. At first sight these numbers would appear to be conclusive; but when we enter into their details, we find that 2491 of the 4359 had experienced the diarrhœa *only for a day before entering the Hospital.* Now the admission into Hospital cannot properly be regarded as the outset of the disease, and the only logical conclusion that can be drawn from these figures is that in more than a half of the cases the diarrhœa had preceded the more severe symptoms so short a time, that it would be an abuse of terms to call that a *premonitory* phenomenon which was evidently only the first manifestation of the choleraic poisoning. There remain, then, 1868 patients only out of 4740 who really had a premonitory diarrhœa—that is to say, lasting one or two days before the accession of more serious symptoms.

"In short, the epidemic of 1866 demonstrates that premonitory diarrhœa is far from being so constant as has been thought. From another point of view, if the patients attacked by diarrhœa, associated with various morbid states, such as phthisis, are very much predisposed to choleraic attacks, the exceptions are much multiplied. Indeed, if we very often see therapeutic means successful in the numerous cases of diarrhœa which accompany an epidemic of cholera, it still remains doubtful whether they have equal power in those cases of diarrhœa which are truly prodromic of cholera—that is to say, in those cases in which it is the first manifestation of a choleraic attack which may be expected very shortly to follow. For more exact notions upon this subject, it would have been necessary to have taken account numerically of the cases in which the diarrhœa was treated, and of those in which it was left to itself.

"*Symptoms.*—According to M. Oulmont, the more prominent characters of the epidemic are the following:—1. *A saburral condition of the primæ viæ*, troublesome gastric disorder which nothing but emetics, sometimes repeated, overcome. 2. *Extreme difficulty in restoring warmth to the patients in the algide stage*, the algidity reappearing as soon as the means employed were suspended. 3. The *cramps* less violent than they were in 1865. 4. The *reaction* free and rapid in the cases tending to recovery, but more often slow, insidious, adynamic, and followed by a fatal coma.

"The *choleraic diarrhœa* (says M. Horteloup) was usually abundant. Sometimes it was completely suppressed during the algide stage when the asphyxia was intense; at other times it remained during the reaction, an occurrence which appeared to coincide with a less degree of gravity in the cerebral symptoms.

"Complete and sudden suppression of the dejections during the algide stage was observed in two fatal cases. Sometimes the vomiting has been wanting, being replaced by nausea. In many cases abundant vomiting has persisted even during the reaction.

"At the outset of the epidemic death supervened during the algidity and asphyxia. Subsequently many of the patients, while yet cold and cyanosed, were rapidly seized with agitation and delirium, and died in coma without exhibiting a trace of reaction. When the reaction was free and regular, the patients most frequently recovered; those who died in the reaction died with cerebral symptoms, such as delirium (furious or moderate), complete hemiplegia, and coma.

"As complications of the reaction, M. Besnier twice observed internal suppurating otitis, five times eruptions without well-determined characters, followed by desquamation something like those of measles or scarlatina. These patients recovered.

"M. Gubler observed the *sweating* form of cholera in four patients: diarrhœa moderate, sweats profuse, cold, and alkaline. In two patients he observed a peripheric paralysis.

"*Urine.*—M. Gubler and M. Besnier both observed in the urine the presence of albumen and the indigo coloration produced by a certain quantity of nitric acid. Three times M. Gubler observed jaundice with bilious coloration of the urine as a critical phenomenon.

"*Relations which were established between Cholera and other Diseases.*—All sickness in general constitutes in varying degree a predisposition to the invasion of cholera. In seventy-two cases arising in the wards in the practice of M. Horteloup, cholera was observed to be developed in the course of the following diseases. In the most prominent place were affections in which diarrhœa exists (phthisis 14 times, diarrhœa 10 times, typhoid fever 10 times, gastric disturbance 3 times); then affections the most diverse (articular rheumatism, small-pox, each 3 times; erysipelas, pneumonia, bronchitis, lead colic, pelvic peritonitis, cardiac disease, fracture, each twice; intermittent fever, syphilitic paralysis, hemiplegia, uterine cancer, blenorrhagia, caries of bone, phlegmon, Pott's disease, each once); lastly, cholera was developed 5 times in pregnant women, women recently delivered, or nurses, and the nurslings have furnished two cases. Out of these 72 cases, 55 were fatal, showing the extreme fatality of these secondary choleras.

"*Conditions resulting from Age.*—According to M. Bergeron, the mortality produced by cholera in early infancy is enormous (at 2 years and under, 77 per cent.; between 2 and 10 years, 40 per cent.; above 10 years, 26 per cent.). As to the total mortality, it was 47 per cent.—about 26 in 60—that is, pretty nearly the same as for the mean age when all the categories are united together.

"*Pregnancy.*—According to the figures obtained from the different Hospitals, it results that pregnancy gave a considerable contingent to cholera, and that the cases developed under these circumstances were of extreme severity. It will, then, be an important proceeding in future epidemics to exclude pregnant or lying-in women from the Hospitals where cholera cases are received, or to refuse to receive cholera patients into the Hospitals devoted to lying-in women.

"*Contagion—Isolation.*—It was often noted that the cholera patients brought to the Hospital belonged to families several members of which had been attacked successively or simultaneously. In these cases, in the midst of an epidemic, the influence of contagion properly so called can only be invoked with reserve, since the facts relate not only to persons related to each other, but who have been under the operation of the same general and special influences.

"Nobody now-a-days denies the transmissibility of cholera from a sick to a healthy individual, but it is incontestable that the epidemic centre being once established the development of the disease is no longer subordinated to this mode of transmission, and that isolation more or less complete is no barrier to the progress of the epidemic. Contagion alone is insufficient to explain the explosion, exacerbation, and termination of cholera epidemics in a country, a town, or even in a Hospital. The following observations furnish a proof of this:—The only two cases originating in August within the Hôpital Cochin were in two nurses sleeping in the same dormitory, and who were taken the same day, and neither the one nor

the other had anything to do with the care of the cholera patients. At La Charité the cases originating within the Hospital were scattered about everywhere. Of 7 cases developed in September, M. Isambert notes that two came from the wards of M. Velpeau, 1 from his own, 1 from that of M. Pelletan, 1 from M. Bouillaud's, 2 from M. Nonat's. The last has been no better off than the others, adds M. Isambert, notwithstanding the chlorine fumigations which that Physician practised on a large scale.

In all epidemics the staff of the Hospitals has furnished numerous victims. 97 deaths in 1832; 147 in 1849 (in consequence of the special epidemic at La Salpêtrière); in 1853-54, 28 deaths, among which were 7 employés, 3 sisters, 14 ward men, 4 assistants. This year the number of victims does not appear to have been less, notwithstanding the isolating of the cholera patients, and it is remarkable to observe that the greater number of those attacked have not been engaged in the care of the cholera patients, and were not brought into any direct relation with them.

"The number of cases originating in Lariboisière, where complete isolation is practised, is 20 per cent., while at St. Antoine, where the isolation was very incomplete, they constituted only 2 per cent. Out of 67 cholera patients treated in August at St. Antoine, there was not one of origin in the wards; whilst at the Hôtel-Dieu there were 150 cases arising in the Hospital for 181 brought in from without—about 30 per cent. This is not saying that the separating system is not an excellent measure, and that it is not partly owing to its adoption that so few internal cases were developed in certain establishments, and notably in the Enfants Malades, Necker, Cochin, and St. Antoine. But still the proof is doubtful, and the question open to controversy. Lastly, to have done with questions of contagion, it is worthy of remark that, in such establishments as Devillas or Les Ménages, the only internal cases appeared to be developed spontaneously without any trace of transmissibility being discoverable. The same with the incurables (women), as MM. Raynaud and Archambault have remarked.

"*Influence of Local Hygienic Conditions.*—This epidemic demonstrates, like the preceding ones, the part played by bad hygienic conditions in the development of the disease. At La Salpétrière, for example, whilst everywhere else the epidemic was decreasing, 31 cases cropped up, 27 of which occurred in a building where the closets were in the most deplorable condition. The same at Beaujon: it was in the ward Sainte Claire, already distinguished in the time of M. Moutard-Martin for its insalubrity, that in one day appeared the first five cases observed at Beaujon. However, it is necessary to say that the best hygienic conditions only produced a relative amelioration when the treatment of persons already attacked was at issue.

"*Treatment.*—In most of the Hospitals the Physicians, resting upon their old experience, only introduced into their practice some modifications of detail. To rouse the circulation as far as possible, to restore warmth, and to pursue at different periods the particular indications furnished by the patient or the disease, this is the rule of practice which each has followed. However, some new experiments have been undertaken which deserve to be noticed.

"*Evacuant Treatment.*—Emetics, and especially ipecacuanha, have appeared to be indicated in most cases at the outset. MM. Woillez, Horteloup, Oulmont, Mesnet, Guibout, Isambert, Moissenet, have seen every reason to be satisfied with its evacuant and alterative operation. Tartar emetic was sometimes associated with it where there was constipation (M. Moissenet). With the view of restoring bilious stools, calomel was administered, either alone or mixed with ipecacuanha or scammony, by MM. Moissenet and Isambert. This last does not appear to have obtained the results he expected from this medication.

"*Saline Treatment.*—M. Moissenet in particular has had recourse to this in the following manner:—After the emetic a hot bath, adding to it mustard 2 kilogs., bay-salt 3 to 4 kilogs., and subcarbonate of soda 250 grammes. After the bath a potion composed of water 90 to 100 grammes, chloride of sodium 4 grammes, syrup 30 to 45 grammes, orange-flower water 15 grammes, or essence of peppermint 1 drop; at the same time, *ad libitum*, water, seltzer water, ice, or a tisane with 2 grammes of bicarbonate of soda to each litre. Morning and evening a lavement containing 30 to 40 grammes of salt. This medication is continued until the appearance of bilious stools. It gave the following results:—Out of 44 cases, 26 severe, 12 moderate, 6 slight, there were 11 deaths and 33 recoveries. It has appeared to lessen the dangers of the reaction. Does it act like purgatives in small doses? Is it, in a word, a cholagogue? Would it be antiseptic? Would it give back to the blood the salts lost in the dejections? Whatever opinion may be formed about it, this method, adds M. Moissenet, formerly used by him at the Hôpital St. Louis in 1849, seems, according to his new trial of it, to be really useful.

"*Arsenic.*—In 5 cases M. Gallard ordered Boudin's solution (10 to 15 grammes per diem, representing 1 centigramme and a half of arsenious acid, in doses of 1 milligramme every hour): 2 recoveries; 2 deaths; no free reaction.

"The *Chloride of Potassium* in large doses, in accordance with the theoretical indications of M. Sainte-Clare Deville, gave no more favourable results (Oulmont).

"*Nitrate of Silver.*—Enemata containing nitrate of silver, prescribed by M. Isambert, have appeared to give good results by modifying the nature of the stools, perhaps by a reflex operation upon the liver.

"*Cannabis Indica.*—In one case of uncontrollable vomiting M. Féréol obtained a very good result by making the patient take every hour a morsel of sugar saturated with the following mixture:—Tincture of hachish, tinct. of nux vomica, āā 1 gramme, melissa water 5 grammes. MM. Delpech, Woillez, and Desnos continue to employ the tincture of cannabis against the vomitings with satisfactory results.

"*Sulphate of Copper.*—Thanks to convictions less happy than firm, the treatment with this salt has again been made the subject of experiment. M. Horteloup, wishing to obtain a decisive proof in this respect, has prescribed the salt to 72 patients. The results were not better than those obtained in 1865 by M. Pidoux. Among the 72 cases there were 5 slight ones, which recovered; 23 moderate ones, of which 14 recovered and 9 died; and 44 severe cases, with 43 deaths. The sulphate of copper was given in the dose of 30 centigrammes in a potion with syrup of poppies, a spoonful every half-hour in severe cases, and every hour in moderate cases. Moreover, three or four times a day a fourth part of a lavement containing 40 centigrammes of the copper salt was administered. The potion mostly provoked obstinate vomiting and a very painful sensation of burning in the pharynx and stomach, as well as violent colics when the stools were suppressed. Otherwise, none of the patients suffered from symptoms of poisoning by copper.

"*Injections into the Veins.*—One single injection of saline water was tried by M. Oulmont. The patient, who was *in articulo* at the moment when it was made, survived 24 hours.

"*Subcutaneous Injections: Curare, Sulphate of Atropine, Sulphate of Quinine, &c.*—M. Isambert has tried to apply curare to the treatment of cholera, in accordance with the ideas put forth by M. Marey upon the pathological physiology of cholera (spasm of the vasomotors). Hence the indication of curare as an agent paralysing the vasomotors (Cl. Bernard), and as provoking diuresis and calorification (M. Voisin). The experiments were made in the doses indicated by M. Voisin in two women attacked with cholera of medium intensity. In both the curare was not absorbed during the algide stage; the temperature, as observed hour by hour, did not vary, and there was no diuresis. When, after two days, reaction was produced, one of the two women had a shivering fit, with chattering of the teeth; the other felt as if her limbs were broken, and her eyelids weighed down all day, which seemed to prove a consecutive absorption of the curare. No remarkable diuresis, however, occurred. M. Isambert thinks that by reason of this possible but tardy absorption there would be danger in repeating doses of it during the algide stage. In other respects, after such results as these, M. Isambert doubts the advantage of pursuing these experiments any further, and merely asks whether, in severe and almost desperate cases, where any experiments are warranted, one might not attempt the injection of curare directly into the veins. He would not do it without the approbation of his colleagues.

"M. Isambert has in two cases made subcutaneous injections with sulphate of quinine; but the results were doubtful. M. Lailler has tried, without success, the injection of sulphate of atropine for uncontrollable vomiting.

"The defective absorption is evidently the cause of failure in all these trials:—

"*Cold Affusion.*—The *Gazette Hebdomadaire* (No. 40) gives the details of the use of this method of treatment as employed by M. Bouley at Neckar. M. Besnier, in his Hospital practice, has obtained tolerably favourable results from cold affusions. Of eleven patients, of whom eight were very severely

attacked, submitted to rolling in a wet sheet, five got well and six died. After the envelopment in the wet sheet, they were rolled in a warm woollen covering. Relief to the discomfort and general anxiety was constantly produced; in those which recovered, the amendment was very rapid. In some of the latter the only internal treatment they received was iced and sweetened seltzer water. M. Simon, among the old women at La Salpétrière, has not thought it prudent to employ this method, which, in his hands, had succeeded in two cases at Lourcine. M. Delpech has not been so well satisfied with the results of cold affusion; he only tried it in four cases. Finally, M. Serres, *interne* to M. Lailler, has noted that the cold affusion employed in two severe cases produced a very favourable result in one of them.

"Hot baths with cold affusions during the typhous reaction have been ordered with success by MM. Bergeron and Desnos.

"*Cupping, etc.*—As a means of relieving the epigastric suffering, M. Oulmont has successfully employed dry or wet cupping locally. As a means of producing derivation during the reaction, M. Horteloup had recourse to the exhausting apparatus of Junod."—(*Gazette Hebdomadaire*, 1866, No. 46.)

REVIEWS.

Mental Pathology and Therapeutics. By W. Griesinger, M.D., Professor of Clinical Medicine and of Mental Science in the University of Berlin, etc. Translated from the German (Second Edition) by C. Lockhart Robertson, M.D. Cantab., Medical Superintendent of the Sussex Lunatic Asylum, and James Rutherford, M.D. Edin. Published by the New Sydenham Society. London. 1867. Pp. 530.

"Professor Griesinger," say the translators, "is essentially the representative and the acknowledged leader of the modern German school of Medical Psychology. As such, his work must be an object of deep interest to every student in mental science." The thanks of the Profession are due to the Council of the New Sydenham Society for the selection of this work as one of those to be published during the present year. The first edition of the original work was published in 1845, and the second, from which the present translation is made, in 1861. The subject is distributed into five sections or "books." We need scarcely say that each is full of instruction, and carries upon its face the evidence of great experience and close and deep thought. But what has appeared to us as of special interest are the views propounded by the writer in the first and second books, the former of which is introductory and treats of general topics, and the latter of which is engaged with questions of etiology. If, then, in the following remarks it is found that we quote most largely from these sections, it will be understood that it is because we are of opinion that they particularly deserve the study of those who have found a difficulty in following the thread of disturbances in the various forms of mental disease. Professor Griesinger defines insanity as "an anomalous condition of the faculties of knowledge and will," and distinctly affirms that the brain must be necessarily and invariably diseased where there is madness. He does not mean that local disease in the brain will always be found in persons dying in an insane condition. He guards himself most carefully against any such inference, declaring "that the brain affections which lie at the root of mental diseases are infinitely more diffuse than localised;" and as he admits the influence of morbid conditions at a distance from the organ in originating mental abnormalities, we must conclude that he is not in making this assertion thus broadly at variance with writers such as Dr. Maudsley, whose work we recently reviewed, who dwell emphatically on the operation of these conditions. The third chapter of the first book is one which we particularly commend to the reading of the commencing student of insanity. It is headed "Preliminary Physiopathological Observations on Mental Phenomena," and its high value to such persons lies in this, that the writer discusses the subject from the student's own standpoint—that is, assuming his acquaintance with the ordinary physiological phenomena of the nervous system, he takes up the analogy which they furnish, and applies it to the explanation of what, by other methods of teaching, is most difficult of apprehension by one not familiar with healthy psychology. Let us offer an illustration of this method. He is referring to "Association of Ideas," and writes thus:—

"Perception and sensorial function cannot continue for an unlimited time in quite the same state. They appear to be soon fatigued by a continuation of the same action, and therefore a certain change is always necessary. Where no motive to such change is presented from without, a new sensation or perception, purely subjective, will be called forth from the original perception. The simplest phenomenon of this nature, within the sphere of sensibility, is that of the so-called complementary colours, and subjective contrast colours (the appearance of blue when we look at an orange colour, of violet when we look at green, &c.). In perception something analogous occurs. In it this process proceeds according to the same fundamentally obscure relations of contrast and similarity. When a perception has lasted for a certain time it calls up another, similar to or contrasting with itself—that is to say, there may be produced a series of perceptions, either altogether new, or such as can be retraced to the first perception, which continues to predominate. This occurs very frequently: for example, in those cases where, in the midst of sad ideas, excited by an external cause, others of a completely opposite nature, very humorous, suddenly arise. The ideas call forth each other, as well according to the sense they contain as according to the analogy of the sensorial images entering into them (images of vision, of sound, words). The last is sometimes seen in mental disease, especially in mania, in the most striking manner, where the patient finds and pronounces with great rapidity long series of similarly sounding words, which are unconnected in meaning, or at least connected only by the most incoherent sense. . . . In so far as through the so-called association of ideas no new perceptions are originated, but only some are awakened and reproduced out of the store of perceptions which were formerly present, this process is called the *memory*."—P. 31.

Again, speaking of *will*, he writes:—"In the instincts there are no single clear and definite ideas, but there are sensations and feelings which excite the impulses of movement, and whereby the action of the motory nervous system is directed towards the groups of muscles. If, however, the known and definite ideas, by being united to the impulses of movement, exercise an influence upon the muscular movements, this is called *will*. . . . Here the impulses of movement proceed no longer from sensitive irritation, but from motives; that is to say, from complex ideas present to the consciousness, although in only a slight degree, the motive still resembles the irritation. Essentially it is the same process as that of reflex action. . . . The ideas transform themselves into effort and will under the impulse of an internal force, in which we recognise, even in the innermost sphere of the life of the soul, the fundamental law of reflex action. We *must* will. In the healthy mind it urges and impels the individual to express his ideas, to realise them in action, and thereby to rid himself of them. If this has taken place, the soul feels disburdened and freed; by the act it relieved itself of the ideas, and thus its equilibrium is again established. . . . All effort, the instinct and the will, form the centrifugal motory aspect of the activity of the soul. The special constitution of this phase of the soul life constitutes, in a great measure, that which is called the individual character. These facts present a close analogy to what takes place in the musculo-motor nervous system, while pure perception has far more in common with the phenomena in the nerves of sense. We find, therefore, in effort the same categories which, as general expressions, represent certain states of muscular movement—fatigue and paralysis of movement (weakness and paralysis of the will), tonic convulsion (continued and determined effort in one direction with immovability in all others), convulsive movement (instincts let loose by disease, covetousness, morbid restlessness, forming of projects, and desire of action). It is worthy of consideration that frequently in mental disease this motory side of the soul life and the musculo-motory function are both altered in the same morbid manner. Thus there occurs absence of will, together with general sub-paralysis of movement, a morbid exaggeration of the will with increased muscular activity (for example, in maniacal condition). At other times the disease passes quickly from the one sphere to the other, as in an attack of epileptic convulsions followed immediately by a psychical convulsive state, a violent fit of mania. Weakness of the spinal cord is also frequently accompanied by weakness of will, despondency, and absence of mental energy."—P. 42.

We have been much pleased with the author's remarks on the "general diagnosis of mental disease." They are such as should be carefully read by all who are likely to be called to

give an opinion upon what often turns out a very difficult point of diagnosis. It is not always, as some have found out to their cost, a very simple thing to say whether or not a man is mad or merely eccentric, or immoral, or holding false views of life as a result of neglected education, and so on. "The chief point is invariably this—that in the great majority of cases there appears with the mental disease a change in the mental disposition of the patient, in his sentiments, desires, habits, conduct, and opinions. He is no more the same; his former *I* becomes changed; he becomes estranged to himself." We are warned, however, not to lay too much stress upon this element of diagnosis. "In certain cases, which, however, are not common, no marked change can be distinguished, but rather a stronger development and increase of prominent peculiarities of character; and when, in such cases, the mental disturbance comes on slowly and gradually, it is difficult satisfactorily to prove insanity. . . . This change is also wanting in congenital cases, and such as have existed from early youth; also in individuals who have been all along eccentric, peculiar, or mentally weak."—P. 114. At. p. 123 will be found one of the best summaries we have ever met with of the facts which the Physician ought to observe when called upon for an opinion in any particular case, and of the mode in which he ought to pursue so delicate an inquiry.

It will be recollected how often in the pages of this journal we have protested against the rough-and-ready style in which insanity is referred by Asylum Physicians in their published reports to certain single etiological or presumed causative circumstances, such as love, or grief, or loss of property, and so on. Such an etiology as this is utterly valueless for any practical purpose. We thoroughly endorse the dictum of Professor Griesinger, then, that in determining the cause or causes of the insanity we must be guided by all the facts discoverable in the history of the case, which are "always to be collected with the greatest care and strict attention to minute details." "The opinions of those about the patient regarding the etiology of the disease are more frequently erroneous than correct, and almost always are at least one-sided. By laymen and even by Physicians, symptoms of commencing, and occasionally of already confirmed, insanity are frequently regarded as causes. In the commencement of the mental disease a strong desire for alcoholics, or strong sexual irritation leading to excesses or to onanism, can, for example, appear as symptoms. The already existing emotional excitement may occasion indiscreet connexions, rash speculations, religious vexations and discussions, and the error is often committed of ascribing the disease to drunkenness, unfortunate love, an unlucky venture, religion, etc., etc. So also it very often happens that insanity is considered by the friends of the patient or by an experienced Physician as of recent origin, which, on closer investigation, shows itself to be of many years' standing, and already deeply rooted. Pinel himself relates the case of a patient who was said to have been nine months insane, while, in fact, the disease had existed for fifteen years."—P. 129.

The third and subsequent books are devoted to the consideration of the Forms of Mental Disease, divided into "States of Mental Depression," "States of Mental Exaltation," and "States of Mental Weakness;" the Pathological Anatomy of Mental Disease; and the Prognosis and Treatment of Mental Disease. Professor Griesinger's observations on the Therapeutics of Insanity are exceedingly judicious. He is an advocate for the non-restraint system as carried out in English Asylums, having become converted to this practice, as he tells us, by observing its very excellent results in the country. He has great faith also in the benefits of Asylum treatment; not that it is necessary for cure that all should be thus removed, but that the circumstances of a well-ordered Asylum are generally conducive to recovery. We must conclude our notice of the work by an extract upon this subject:—"Most convalescents bless the day of their entrance into the Asylum, and the advantage of removal to such an institution, first most urgently insisted on by Esquirol, has since then, as the result of an overwhelming experience, been established as a fundamental principle, not only in psychiatrie, but is daily becoming more and more recognised as such by the great bulk of Medical men generally, as well as by the laity themselves. But this removal, which, on the one hand, when certain indications present themselves, cannot be too soon effected, cannot fail, on the other hand, to exercise a very important influence on the future career of the patient as a citizen, and is a step which always demands the gravest consideration. The first and most urgent indication for this procedure is that condition of the patient where he may be dangerous either to himself or to others, or may cause any great disturbance; the outbreak of mania, or unmistakable signs of its approach, are manifested; a tendency to commit suicide, the prevention of which in private can never with certainty be relied upon; and refusal of food, such as cannot be easily overcome. Moreover, all cases of mania, many of monomania, and many unruly dements, are proper subjects for a lunatic asylum; and the harmless dement, in the early stage of his malady, in which there is often some graver mischief lurking, finds there, at the earliest possible period, his disease correctly diagnosed and properly treated. Secondary apathetic and paralytic dementia, on the other hand, are fit subjects for treatment in private, in any place where careful attention can be secured. The determination, where removal to an asylum is really indicated, is only occasionally difficult in melancholia. What we observed with regard to the adoption of this measure in hypochondriasis inclines us to look upon it rather unfavourably than otherwise at first sight; there we saw that not till the patient has become wholly incapable of self-control does this step appear to be at all called for. So, likewise, simple melancholia does not, during the first few weeks, seem to necessitate removal to an asylum so long as it remains of a mild character and with a slight disposition towards improvement. Probably change of scene or an excursion into the country may prove sufficient, provided that the patient is there surrounded by judicious attendants, who will studiously enforce all the directions of the Physician. But, on the other hand, if the melancholia has continued for some months unchanged, and rather increasing than otherwise, and if the patient become from time to time subject to illusions and become disturbed by troublesome hallucinations, or if the case degenerates into one of hopeless stupidity or apathetic indifference, removal to an asylum must no longer be delayed. However, the indication depends in many cases less upon the form and kind of the disease than upon the circumstances and character of the patient. It is always the more necessary according as it is less possible for the patient to have paid him at home all the attention he needs; for the less perfectly the measures necessary for treatment can be carried out, the more does the patient seem disposed resolutely to resist them."—P. 468.

We are sorry we cannot speak in the highest terms of praise of the manner in which the translation from the original German has been effected. No doubt whatever, German Medico-metaphysical works are at all times most difficult to comprehend even in the original—words specially coined to express an idea, and sentences involved almost beyond the hope of unravelling, meet the reader on every page; and every indulgence must be therefore extended to one who fails to express the meaning of the author in another language. But however a passage is rendered, it should be rendered at any rate gramatically. Such sentences as the following certainly should not have appeared in the translation:—"All comparison with the imponderables, which stand in a relation analogous to matter, and appear also as somewhat immaterial, provoke however material changes and modifications, are of but little service. The mental or nervous agent has no real analogue in the whole of the universe; the theory, as Locke has already shown, experiences the same difficulties, whether they allow to think the material, or whether they will comprehend the action of an immaterial agent upon matter."—P. 7. Such faults as this, however, become less frequent as the translation proceeds—they are mostly found in the earlier pages.

Cholera; its Symptoms, Clinical History, Pathology, Diagnosis, Prognosis, Treatment, and Prophylaxis. By S. Goodeve Chuckerbutty, M.D. Lond., Surgeon Bengal Army, Professor of Materia Medica and Clinical Medicine, etc., Calcutta. Calcutta: Lepage. Pp. 178. Reprinted from the *Indian Annals of Medical Science.*

It is almost becoming a question whether cholera has not become endemic in Europe as it is in India, for the length of time it has now persisted, springing up here and there on the least encouragement, is becoming, to say the least of it, alarming. This persistence in Europe has, however, one advantage—it enables the study of cholera to be more systematically pursued, not at the time when it is cutting down hundreds a day alone, but when one here and another there are falling away. Hitherto this kind of advantage has been possessed by Indian Medical officers alone, and well have they done their work, of which the little volume whose title figures above may be cited as fair evidence. If there be one thing more than another characteristic of the Indian school of

Medical writers on cholera, it is the thoroughly practical nature of their writings. They do not waste time in determining a theory of cholera, and then shape their practice to accord with their *à priori* notions; they find what will best suit their patients, and they stick to that.

Now with regard to Dr. Chuckerbutty's work. He commences, after some preliminary matter, with the symptoms of cholera, which are described in a very plain and clear fashion. Its clinical history next claims attention, and he accordingly gives complete histories of sixty-three cases exhibiting every form and phase of the disease; its pathology is then discussed, and, finally, its treatment is laid down. With regard to Dr. Chuckerbutty's own opinions—and the whole work is the fruit of his own experience—there are certain peculiarities to be noticed. Cholera, he says, may commence in two ways; it may be *primary* when no disease whatever precedes, or it may be *intercurrent* when it supervenes on diarrhœa, dysentery, etc. In this way he accounts for the premonitory diarrhœa, which he considers no portion of the actual disorder, cholera, but one perfectly distinct, although extremely liable to pass into cholera, and therefore to be strictly checked in cholera times. In common with most other men of Indian experience, Dr. Chuckerbutty highly approves of the astringent and sedative treatment of cholera in its first stage, for he says cholera is not a disease like small-pox, which must run a certain course until the poison be eliminated; it may be checked, and the sooner it is checked the better. He is, therefore, opposed to Dr. Johnson's views as to the pathology and treatment of cholera, and cites, in opposition to Dr. Johnson's statement that the lungs are usually flaccid, that in sixteen out of twenty-four of his cases the lungs were congested, and blood was found in the left side of the heart in about one-fourth of his cases. In the more theoretical portion of his work, Dr. Chuckerbutty is hardly, we think, so safe as in its more strictly practical division; for instance, he holds that cholera is a catarrhal inflammation of the alimentary canal, depending for an exciting cause on occult atmospheric changes. We, on the contrary, are inclined to hold that it more frequently depends for propagation on impure water; but both are perfectly tenable if we accept the doctrine of germinal matter as the agent for spreading this and other disorders. Again, speaking of the treatment of choleraic collapse, Dr. Chuckerbutty recommends stimulants, and gives several alternative substances which may be employed in case of one not suiting; this we think of doubtful utility. During this period the system is as nearly as possible at a standstill, and whatever is introduced into the stomach, if it be retained, which it seldom is, will not be absorbed to any greater extent than can be effected by the laws of osmose, as they affect dead membranes; if absorbed in any degree, they are not distributed all over the body, the circulation being so extremely imperfect—in fact, they only remain there dormant, as in a reservoir, until reaction is set up, when their presence will most likely induce a renewal of the vomiting, or lead to other unpleasant consequences. One fact our author notes, but does not attempt to explain, that a single large dose of calomel (thirty grains or so) will frequently lead to an almost immediate cessation of the worst symptoms of collapse; another dose may do harm. With Dr. Chuckerbutty's work, apart from these considerations, we are *pleased*. It contains the results of his own experience only, no secondhand matter; it is plain and intelligible to all, for it enters into no deep disquisitions, or what does not come before the ordinary Practitioner. Above all, it is eminently practical—another testimony to the efficacy of astringents and sedatives when given early in the disorder.

Death of M. Guibourt.—Just as the death of the greatest French Surgeon took place during the meeting of the International Medical Congress, so did that of the greatest French Pharmaceutist, M. Guibourt, take place during the meeting of the International Pharmaceutical Congress. M. Guibourt, aged 77, had long occupied the foremost place in Pharmacy, and his works "Histoire des Drogues" and "Pharmacopée Raisonnée" are everywhere classic.

The Cholera in Italy.—The *Gazetta Medica* (Lombardia) of August 26 states that in various localities the cholera is diminishing. In Brescia there have occurred from the beginning of the epidemic to August 23, 815 cases with 508 deaths; in Venice, from July 25 to August 22, 108 cases with 66 deaths; and in Milan, from June to August 23, 277 cases with 203 deaths.

FOREIGN CORRESPONDENCE.

FRANCE.

THE INTERNATIONAL MEDICAL CONGRESS OF PARIS.

If in the opinion of many a spectator the earlier meetings of the Congress were deficient in animation and interest, it must be confessed that our later debates have fully made amends for the frigidity of the first. So hot was the discussion on Friday (August 23), and especially on the ensuing Monday, that we were involuntarily reminded of the sittings of the National Assembly in 1848, at a time when the report of firearms was not unfrequently heard in the streets of Paris. But we must not encroach upon the narration of these events, which will find its proper place in this our faithful chronicle.

On Wednesday, August 21, the discussion was opened on the general accidents which produce death after Surgical operations.

Professor Bourgade, of Clermont-Ferrand, read a paper, in which he strongly recommended the *perchloride of iron* as a means of preventing all the phenomena of Surgical fever. He considers the cause of this complication to be the presence of an organic substance or ferment in the liquids of the wound. He applies to the raw surface, immediately after tying the arteries and washing off the clots of blood, large quantities of lint strongly impregnated with a solution of perchloride of iron. The dressing, which soon becomes hard, is allowed to fall off spontaneously, which it naturally does six or eight days after the operation. Professor Bourgade, having employed this system in ninety-five Surgical cases, has been constantly successful.

Professor Barbosa, of Lisbon, presented to the Congress the voluminous statistical records of the Hospital St. Joseph, in that city, embodying the results of all the operations performed there during the last twelve years. He states that out of 243 amputations only 59 proved fatal, being a proportion of 24·21 per cent. 62 amputations of the thigh, which are included in the above statement, gave 29 deaths, being 46·8 per cent. 13 resections produced only *one* fatal case. 28 cases of lithotomy gave 10 deaths. 34 operations for hernia gave 20 deaths. 19 ligatures of arteries gave 3 deaths. 407 extirpations of tumour gave 16 deaths. The other results indicated by these Portuguese statistics were in general highly favourable.

Professor Barbosa attributes this low rate of mortality to the good hygienic conditions in which the patients of St. Joseph's are placed; to the perfect ventilation and scrupulous cleanliness of the wards; and to the *modus operandi* and dressings adopted in various cases.

Professor Barbosa evinces a decided preference for the circular method in amputations. He carefully washes the wound, and removes all the clots before closing it, leaving between its lips a piece of lint to allow the liquids generated within, an easy escape. He then dresses the raw surface with lint soaked with alcohol. He feeds his patients at once after the operation, gives them plenty of port, and sends them into the Hospital garden to breathe the fresh air.

Professor Gosselin (of Paris) read a paper on the prophylaxy of erysipelas and purulent infection in Surgical wards. The Professor, after hesitating for several years, has at last become convinced that erysipelas is a contagious disease. He has therefore thought proper not only to attend to the ventilation of his wards, but also to separate patients affected with erysipelas from the rest. In the male wards, this separation takes place as a matter of course; in the female wards, where the Hospital arrangements do not permit this to be the case, no patients affected with this disease are allowed to enter, besides which the *modus operandi* has been so modified as to avoid all the methods which tend to the development of this kind of inflammation. Tumours are removed, not by the knife, but by the agency of caustics. Abscesses of the breast are never opened, but left to the course of nature, etc. In consequence, Professor Gosselin has obtained since 1862 much better results after his operations than formerly.

As to purulent infection (Surgical fever), the Professor has, with equal success, adopted the following rules:—

1. Ventilation as perfect as possible.

2. Moral disposition of the patient carefully attended to, and his mind prepared to submit to the operation.

3. Suppression of pain by anæsthesia.
4. Careful ligature of even the very smallest arteries.
5. Avoidance of pain in all the dressings of the wound.
6. No attempt, under any pretence, at union by the first intention. Cold or hot water, sometimes mixed with a little alcohol, applied to the raw surface.
7. Mechanical beds, allowing the patient to be easily moved.
8. Tonic and nutritious diet: wine, spirits (brandy or rum, two small glasses a day).

If the results of his system are not altogether satisfactory, Professor Gosselin finds them infinitely superior to those he used to obtain before 1862.

Professor Labat (of Bordeaux) read a note on the best means of avoiding the accidents which occur in wounds. He advises the Surgeon not to attempt a complete reunion of the lips of the wound unless it is superficial, and unless the corresponding tissues are of the same nature. He directs the flaps of the wound to be so disposed as to allow the liquids to flow out freely, and goes so far as to advocate the system of drainage. He prohibits the application of irritating substances upon the raw surfaces (we are at a great distance here from Professor Bourgade's opinions), but recommends alcohol, which, says he, prevents the putrefaction of organic substances. Water, *per contra*, is not to be used in washing the wound. As far as possible, the injured or amputated limb is not to be disturbed, and the dressings are to be "few and far between." Lastly, if any symptoms of purulent resorption make their appearance, a dose of from forty to sixty grains of ergotine is to be administered internally, during ten or twelve days.

Dr. Verneuil read a very interesting paper on the organic conditions in which Surgical patients are placed, and on the influence of constitutional diseases on the results of operations. We are obliged, from want of space, to abridge this very interesting document.

It would be of the highest importance for the Surgeon to appreciate the probabilities of success, not merely in each kind of operation, but in each part, in a case. But the knowledge we possess in this respect is still deplorably imperfect.

It is well known that both lithotomy and lithotrity are infinitely more dangerous in patients affected with disease of the kidneys or of the bladder than in ordinary cases. It is well known that tracheotomy is a far more serious operation in cases of diphtheria than when performed for the extraction of a foreign body; that an amputation of the leg becomes a serious operation when the limb is covered with varicose veins; that the amputation of the breast in cancer is far more dangerous than when performed for an ordinary tumour; that the slightest Surgical operations are frequently mortal in diabetic and phthisical patients; that, on the contrary, they ordinarily succeed in lunatics, etc., etc.

But how little is really known as to the relative danger of operations in subjects addicted to intoxication; as to the danger of operating upon the genital organs during the menstrual period; as to the propriety of operating upon country people in town Hospitals, etc., etc.

We are totally ignorant as to the influence of diseases of the liver on Surgical operations; we know nothing of the influence of pregnancy, lactation, and similar conditions on this branch of practice. In short, we operate almost in the dark; and an immense field is open to the scientific Surgeon who proposes to examine this *terra incognita*, which promises many an important discovery to those who undertake to explore it.

Dr. Mazzoni, of Rome, read a paper on the physiology of the accidents which follow Surgical operations. He lays great stress on the necessity of separating Surgical from Medical patients, and states that in the Maternity of Naples puerperal fever is unknown, owing to the absence of all patients affected with consumption, typhoid fever, or any similar disease.

Dr. Marjolin, of Paris, attributes the greater part of the accidents which take place in Hospitals to the want of proper hygienic measures; he proposes that a permanent Medical Commission should be nominated in every country to investigate these all-important questions, with respect to Hospitals in general, and each Hospital in particular.

This proposition was voted with universal applause, and expressed as a formal demand of the International Congress.

Mr. De Méric (of London) stated that the precautions recommended by Professor Gosselin had long ago been adopted in the London Hospitals, and attributed a part of the success of British Surgery to this very fact. He alluded to the extreme gravity of Surgical operations in the case of railway accidents, and begged Dr. Verneuil to state whether he had not observed the same thing.

After some observations by Dr. Bole, Professor Jeannel, of Bordeaux, and Professor Gosselin, Dr. Verneuil replied that he had ascertained the extreme gravity of wounds from railway accidents, and had been able to refer them to their real cause—viz., the extraordinary extent of the injuries inflicted, which in almost every case extends much further than was at first sight supposed. He said that in these cases no attempt should be made at union by the first intention, a system which, in fact, was growing obsolete, and could only be employed in a limited number of cases.

The evening sittings of Thursday, August 22, and Saturday, August 24, were devoted to some very interesting communications; but we reserve them for our next letter, in order to give immediately an account of the remarkable discussion on syphilis.

On Friday, August 23, the discussion was opened on the Prophylaxy of Syphilis, Dr. Ricord in the chair.

Professor Behier proposed that a commission, composed of French and foreign members, should be appointed by the Congress, to establish on this point a system of sanitary measures which should be proposed to all the Governments of Europe.

The proposition was unanimously carried.

Professor Crocq, in the name of Dr. Vlemincks, of Brussels, read a paper on the sanitary measures adopted in that city with respect to prostitution. All the women inscribed on the public registers are visited by competent Medical officers every two or three days. All the prostitutes who do not attend the visit are severely punished. All those who are found to exhibit the least affection of a suspicious nature are immediately sent to the Hospital. No Physician is allowed to visit these women in private houses. The regular execution of these measures, says Dr. Vlemincks, has almost extinguished syphilis in Belgium. Professor Crocq is less sanguine; the evil, says he, has considerably diminished, but has not entirely disappeared.

Professor Jeannel, of Bordeaux, gave a long and interesting account of the state of prostitution in Bordeaux, and expressed the desire that the maritime population should be more particularly inspected, for seamen he considers as the chief propagators of syphilis in all countries.

Mr. De Méric read a report adopted by the Harveian Society, which proposes the adoption of general regulations, through which all prostitutes in England should be regularly visited by Medical officers. The present state of things is described as most injurious to public health.

Dr. Rollet, in the name of the Imperial Society of Medicine of Lyons, read a report, the principal conclusions of which may be summed up as follows:—

The most important measure of international hygiene which can possibly be proposed to the Governments of Europe is the application of sanitary measures to prostitution, and a regular system of visits in the case of all women notoriously addicted to such practices. It is useless for one nation—say France or Belgium—to adopt sanitary measures if in a neighbouring country these measures are constantly disregarded, thus keeping up a permanent focus of infection.

It would be proper to visit, if possible, the men who frequent houses of prostitution, and, at all events, soldiers and sailors ought to be compelled by the military authorities to submit to an inspection of this kind whenever they move from one garrison or from one port to another.

Venereal patients ought to be received without any difficulty either in the special Hospitals provided for them or in general Hospitals in the towns where no special Hospitals exist.

Lastly, in order to co-ordinate and control the various sanitary measures adopted to prevent the diffusion of syphilis, an Inspector-General ought to be appointed by Government.

Dr. Mongeot, of Bar-sur-Aube, admits as an established fact that by far the greater number of venereal cases are the result of clandestine prostitution. He therefore proposes the most stringent measures against all women convicted of being addicted to illicit practices without being registered by the police.

Up to this point the proceedings of the Congress had been quiet enough; it was reserved for Dr. Auzias Turenne to raise a storm by his communication on the subject of syphilisation.

Dr. Auzias Turenne read a paper in which he asserted that syphilisation was the only real preservative against syphilis. The repeated inoculation of chancre extinguishes at last all capacity for the disease. A prostitute who has been syphilised

is no longer able to give it, so that a certificate delivered by a Medical man establishing that the girl has been thoroughly syphilised ought to be sufficient to screen her in future from all Medical visitations. It would thus be easy to extinguish all centres of syphilitic infection in a short space of time, and the Congress ought to interfere in order to restore to the inoculation of syphilis its proper place in the prophylaxy of that disease. (Applause.)

Dr. Ricord, who, at the request of Professor Bouillaud, acted as President, rose to say that many a time he had requested Dr. Auzias Turenne to prove his sincerity by inoculating himself, a result which it has been impossible to obtain. And yet, said Dr. Ricord, when I desired to prove that chancre could be inoculated, I tried the experiment on myself.

Dr. Auzias replied that scientific questions should never become personal. He brought forward scientific facts; he would answer scientific objections, and such objections alone.

Professor Galligo, of Florence, one of Dr. Ricord's old pupils, stated that he proved on his own person the contagious nature of secondary accidents by inoculating them to himself, and that in consequence he contracted syphilis with all its dangers.

Professor Bouillaud rose to say that the courage and scientific probity of Professor Galligo deserved the highest praise. He recalled the example given by Desgenettes, who inoculated himself with the plague, and Chervin, who exposed himself to the contagion of yellow fever, in order to prove that these diseases were not transmissible from one man to another. He would advise Dr. Auzias to follow these glorious examples.

Dr. Auzias said that syphilisation must follow the line of all scientific questions; that experiments must be made, and clinical observations noted down, to solve it; and that he did not feel himself called upon to make experiments on his own person.

Professor Jeannel assented to the opinion expressed by Dr. Auzias. He thought that, provided he brought forward scientific proof, he might well be dispensed from inoculating himself.

Dr. Ricord remarked that the practice of syphilisation arose from the doctrine of *unicity*, or the existence of a single venereal virus. This doctrine, which had at first been his own, he had abandoned long ago; the existence of two sorts of chancre, hard and soft, the one infectious, the other non-infectious, was now all but universally admitted. Hard chancre, when once inoculated, could not be inoculated again; on the contrary, soft chancre could be almost indefinitely inoculated, but was entirely worthless as regards preservation from syphilis. Dr. Ricord never consented to inoculate hard chancre to subjects free from syphilis; all his experiments were made on himself or on syphilitic patients. Hence arose one of his scientific errors. He had not believed in the contagion of secondary accidents, because he had never tried to inoculate them on sound subjects. But other Physicians did what his conscience had prevented him from doing, and succeeded in proving that which for many years he had desired. One great fact, said Dr. Ricord, rules all this debate. There is a fundamental distinction between hard and soft chancre: the latter is a local accident—the former is an infectious sore, which gives rise to constitutional symptoms. The friends of syphilisation forget this essential distinction; hence arises their mistake. (Loud and prolonged applause.)

Dr. Auzias said that, in his opinion, the absolute distinction between hard and soft chancre was fictitious; but supposing it to be true, it would not contradict the doctrine of syphilisation. Vaccine lymph preserves from small-pox, yet the two diseases are not identical.

Dr. Ricord said that if soft chancre really corresponded to vaccine lymph as a preservative from venereal disease, Dr. Auzias would deserve to have a statue as the Jenner of syphilis. But if such is his belief, why not make the experiment upon himself? Surely a sufficient number of unfortunate patients have sacrificed their health and their lives to the doctrine of syphilisation.

At this moment, a tall, grey-headed gentleman (Dr. Villemin) stood up, and exclaimed: "I am a Physician; I am syphilised, and my health is excellent."

Another member: Why does not Dr. Auzias follow your example?

Dr. Villemin: I have given up all thoughts of marriage; Dr. Auzias has not.

Dr. Ricord: Well, but if syphilisation is a preservative, subjects preserved in so admirable a manner would be eagerly sought for in marriage by all respectable families. (Laughter.)

After some altercation with Professor Bouillaud, Dr. Auzias said that at the Hospital St. Louis, in the service of Dr. Gibert (since dead), he had practised several inoculations, and that he had almost cured a patient affected with phagedænic ulceration, when the Administration interfered, and prevented him from proceeding.

Dr. Proust, one of the secretaries of the Congress, stated that he had seen the patient to whom Dr. Auzias had alluded. Forty inoculations had taken place, when the phagedænic state of the ulceration obliged Dr. Auzias to inoculate hard chancre; and the patient then contracted constitutional syphilis.

In the midst of great agitation, a discussion of a very personal character took place at this moment between the principal adversaries.

Professor Crocq requested that the discussion should be closed; for, said he, we are discussing the prophylaxy of syphilis. Now, am I expected to propose to the Belgian Government to syphilise all the inhabitants of the country in order to preserve them from syphilis? (Laughter.)

The Congress, being consulted, determined that the discussion should proceed on the ensuing Monday.

On the 26th the debate was opened for the second time, Professor Bouillaud in the chair.

Dr. Auzias presented an able and very elaborate defence of syphilisation. He appealed to the experiments of Böck and Bidenkapp, of Christiania, to those of Sperino (of Turin), to the publications of Drs. Guérault, Melchior Robert, Sirus Pirendi, Colin, etc., and lastly he laid great stress on the opinion of Professor Simpson. He stated that syphilisation had been invented at the end of the last century by a well-known military Surgeon, Baron Percy, whose tendencies were crushed by Academical opposition. And, lastly, he stated that Graves, in his sixty-fourth lecture, had laid down the principles of syphilisation, which he had derived from the labours of Frick, of Hamburg.

Dr. Auzias resumed his seat amidst loud and prolonged applause.

Dr. Jaccoud, the Secretary-General, rose to reply to Dr. Auzias. He said that a radical line of distinction should be drawn between preventive and curative syphilisation. The latter is employed by Norwegian Physicians, to the exclusion of the former. They attempt to cure syphilis by successive inoculations, which generally produce consecutive ulcerations, but in some cases do not. Why? Because, if you inoculate hard chancre upon a syphilitic patient, you obtain no result whatever; if you inoculate soft chancre, an ulceration is produced.

When a large number of inoculations have taken place, immunity is produced—that is to say, inoculation no longer creates ulceration. This immunity lasts for a certain time—we do not know how long.

This method of treatment occasionally produces satisfactory results, but is it totally free from accidents? Böck himself allows that it produces ulcerations of a serpiginous nature, iritis, and various other unpleasant symptoms. And is the patient free from all syphilitic phenomena for the future? He is not; Böck himself allows it. He calls a case of this kind a relapse; I view it as the natural evolution of the disease, which has never been cured. Besides, it has been ascertained that syphilised women, when pregnant, transmit the venereal taint to their progeny.

But what shall we say of preventive syphilisation? By this method we inoculate a subject free from syphilis, in order to preserve him for the future. But the results of these experiments are in themselves a proof that the patient has never been syphilised; three or four hundred successive inoculations are successful; soft chancre has therefore been inoculated, and not hard chancre. A case in point has been recorded by Daniellsen. A patient affected with the spedalskhed, but free from syphilis, was inoculated 275 times: he then acquired a total immunity from inoculation; but some weeks later he was inoculated with hard chancre, and was infected with constitutional syphilis.

In conclusion, said Dr. Jaccoud, curative syphilisation is an inconvenient and dangerous method of treatment; preventive syphilisation is a mere fable. (Loud applause.)

At this stage of the proceedings several important papers were read by Professor Galligo, Dr. Lefort, and other members, which I omit in order to continue the report of the discussion on syphilisation. Those papers shall be analysed in my next letter.

Professor Palasciano said that syphilisation, after being favourably received in Italy, had been almost entirely aban-

doned, even by Dr. Sperino himself, who only employs it in certain cases of tertiary syphilis.

Dr. Ricord said that he always had felt the utmost abhorrence for the practice of syphilisation, and that when it was proposed to inoculate boys at school——

Dr. Auzias Turenne: Never!

Dr. Ricord: The fact is certain, and the reports of the Academy prove it. Then did I call upon Dr. Auzias Turenne to prove his sincerity by inoculating himself, but he constantly refused.

Dr. Ricord perfectly agreed with the views of Dr. Jacçoud. He asserted that neither Percy, nor Frick, nor Graves could be represented as the patrons and inventors of syphilisation, for they only inoculated five or six times, while modern *syphilisers* inoculated three or four hundred times. He admits one kind of syphilisation—that which produces constitutional syphilis—for the venereal disease, like other virulent affections, only once affects the same patient, *exeptis excipiendis*. Dr. Ricord had never seen a single case in which syphilis was cured by inoculation; while, on the contrary, he had seen the most terrible accidents, and even deaths, produced by syphilisation. He recalled the melancholy case of M. Jailly, a law student, who died in consequence of the inoculations performed on his person. He appealed to the common sense of his audience. Who, in his own case, would not prefer a regular treatment, whatever its inconveniences may be, to inoculation with all its dangers? (Loud and vehement applause.)

Dr. Auzias rose to contest some of the facts advanced against him. He produced a letter of Dr. Bazin concerning the patient in Gibert's service. With respect to M. Jailly, he said that this young man died, not from syphilisation, but from erysipelas, contracted by contagion from a woman with whom he was then living. (Applause.)

Dr. Ricord, who was boiling with indignation, rose, and attempted to speak, but was prevented by the clamour of the opposite party. At last he said: I solemnly affirm (*je le jure*) that I saw M. Jailly before his death, and that he died from the results of inoculation.

A perfect storm arose at this moment, which Professor Bouillaud found it almost impossible to quell. At last, silence being restored, Dr. Hinton (of Montreal) related a case of syphilisation which rapidly ended in death.

This violent discussion being at length brought to a close, a commission was nominated, according to Professor Béhier's proposal, and the meeting separated at a very late hour.

GENERAL CORRESPONDENCE.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.

We have received the following correspondence in reference to the above institution:—

LETTER FROM DR. DOBELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—In answer to the circular signed by Drs. Richardson, Leared, and Powell, which appeared in your journal of last week, I beg to say that a letter of mine, addressed to the Council of the Royal Hospital for Diseases of the Chest is included in the report of the meeting of Council, which, I am informed, will be forwarded to you for publication. I trust that this will be perfectly satisfactory to the Profession. I will not, therefore, occupy your valuable space further than to point out the extraordinary character of the mode of attack adopted by the authors of the circular.

At our Hospital the House Committee sits every week, the Council of Management every month, and oftener if required. The Annual General Court of Governors was held on July 2 last, followed by a *déjeuner*, at which all the Physicians were present. At this annual Court all officers are elected for the year, and all the affairs of the Hospital are open for investigation.

Yet neither to me, privately, nor at any of these meetings, did my three colleagues utter their complaints, or suggest, even by a word, that my election to the post of Honorary Secretary was otherwise than agreeable to them.

And they had so carefully concealed their plans from the Council and from me, that the Council did not hear of them till they received individually by post, in common with the whole body of Governors, the printed circular; and I myself knew nothing of it till a Governor showed me a copy which he had received—the authors not having thought proper to send one to me.

It is not necessary for me to make any comments upon a proceeding which speaks so plainly for itself.

I am, &c. HORACE DOBELL, M.D.

84, Harley-street, September 2.

LETTER FROM MR. CHARLES L. KEMP.

[To the Editor of the Medical Times and Gazette.]

SIR,—On receipt of the circular letter issued by Dr. Richardson, Dr. Leared, and Dr. Powell, under date of the 22nd ult., which was received by the Council and Governors on the 28th ult., and appeared in the *Medical Times and Gazette* of the 31st ult., the Council of the Hospital was immediately summoned, and after a lengthened discussion the following resolutions were unanimously passed, viz.:—

"1. That the resignations of Dr. Richardson, Dr. Leared, and Dr. Powell be accepted, and, whilst fully appreciating their past services to the Hospital, the Council consider it expedient to intimate to them that their future attendance will not be required."

"2. That the Secretary be authorised to communicate with Dr. Richardson, Dr. Leared, and Dr. Powell, and intimate to them that they are at liberty to attend any patients at present in the Hospital who have up to this time been under their charge, and that they be requested to inform the Secretary whether they desire to do so or not."

I am, &c.

City-road, Sept. 4. CHAS. L. KEMP, Secretary.

To the Council of Management of the Royal Hospital for Diseases of the Chest.

84, Harley-street,

August 30, 1867.

Gentlemen,—The circular of Dr. Richardson, Dr. Leared, and Dr. Powell, which you have met to-day to consider, while it is damaging to the reputation of your Hospital, attempts to cast a slur upon me, which it is in your power to remove if you decide that it is not deserved.

This circular has been circulated amongst the general public, and published in the leading Medical journals of to-day; and the damage which it is intended to do to your Hospital and to myself will be multiplied a hundredfold if a satisfactory answer to the circular does not appear in the Medical journals of next week.

I respectfully and earnestly request, therefore, that you will not part to-day until you have completely satisfied yourselves on all the points contained in the circular, and draw up such an answer as your deliberations shall lead you to consider necessary.

I believe it is well known to you that I have been for a long time past (see the Minutes of Medical Council, July 3, 1866) in collision with my colleagues, Dr. Richardson and Dr. Leared, on the subject of their wish that your Surgeon, Dr. Powell, should be admitted as a candidate for the office of Physician or Assistant-Physician to your Hospital without being required to submit to the laws of the Institution, by relinquishing the practice of pharmacy, and becoming a Member of the Royal College of Physicians.

I have maintained (and in so doing have come into direct collision with three of my colleagues) that the law of the Hospital should be strictly enforced; and that by waiving it or altering it in such a manner as to lower the qualifications required by your Physicians, the Professional status and public reputation of your Hospital would become degraded.

I still hold this opinion; and on a recent occasion, when the laws of the Hospital were revised, I was obliged to repeat my opposition to my colleagues, Dr. Richardson, Dr. Leared, and Dr. Powell, in their wishes that the laws of the Hospital should be modified to meet their views.

This, gentlemen, is the only ground that I am aware of for the charge of "assumption of authority and spirit of interference," &c., brought against me in the circular. And I must be allowed to point out that these terms are quite inappropriate, for I have only maintained my position by argument in the open field of your meetings, and those of the Medical Council, in which my colleagues have as much voice as myself.

It will be for you to form your own opinions as to how far this matter has influenced the feelings of the writers of the circular.

I regret to be obliged to state that after the extraordinary course pursued by my three colleagues, in thus addressing the public and the Profession in a printed circular, of which they did not even send me a copy, instead of bringing their complaints before me privately, and if necessary urging them before you, the governing body of the Hospital, it would be utterly impossible for me again to work in concert with Dr. Richardson, Dr. Leared, and Dr. Powell, as colleagues.

With regard to my occupation of the post of Honorary Secretary, to which you did me the honour to appoint me in September, 1866, and again at the Annual General Court of Governors on July 2, 1867, your Minutes of the day will show you that I reluctantly accepted the office to serve you in a temporary difficulty—viz., the illness and decease of your secretary; the opening of the Emergency Wards, and the induction of your new secretary into his duties; and that I stated at the time that I should only hold it till "you could find some more efficient person with more time at his command willing to undertake the post." Having had the satisfaction of seeing that temporary difficulty safely and successfully overcome, I placed a letter in the hands of your secretary, August 14, requesting that you will release me from my duties as soon as you conveniently can.

With regard to the other charges in the circular which relate to me, the one concerning diet tables is answered by a letter of mine in the *Medical Times and Gazette* of August 24 instant. I wish, however, to add, that although it may appear to you that as the headings of these tables were copied exactly from the form used at St. Bartholomew's Hospital, as the heading of its out-patient letters—viz., "Directions for Dr. ——'s Patients," they ought not to be subject to any objection; yet, as these headings are in no way essential to the object with which I use the diet tables, and as they appear to have given offence to the feelings of some members of my Profession, which I sincerely regret, I beg to ask that you will direct fresh diet tables to be printed, in which both my name and that of the Hospital are omitted.

The charge concerning pancreatic emulsion—viz., that the bottles in which it is served have my name on the label—is as easily answered. If you will inquire in the Dispensing Department, you will learn that this remedy, which I had the honour to originate in your Hospital, and which is in considerable repute (see a report on "The Experience of Medical Men who have used Pancreatic Emulsion," just published by Churchill) is very easily spoiled if removed from one bottle to another after it is made. It appears that, to avoid this difficulty, your Dispenser has been accustomed to order the emulsion direct from the manufacturer in bottles of the size he requires for the patients, and to dispense it to them in the same bottles in which it arrives. These bottles have borne the usual label of the manufacturer, giving his name, directions for the dose, and mode in which the medicine is to be taken, and the words "Pancreatic Emulsion, originated by Dr. Dobell, Physician to the Royal Infirmary for Diseases of the Chest."

Your Dispenser will be able to tell you that, on my ascertaining, some time back, that these bottles were dispensed to the patients without changing this label of the manufacturer for the usual plain label of the Hospital, I directed him in future to order the bottles to be sent in without this label, and, if he attended to my orders, my name has not appeared on the bottles for some time past.

With regard to my recommending pancreatic emulsion to my patients, I need hardly say that I am bound to recommend to them whatever I consider will do them the most good; and that having spent a large portion of my time during the last few years in attempting to prove to the Medical Profession the value of this remedy, having to a large extent succeeded in doing so (as shown by the report already referred to), and finally, having given the remedy to the Profession and the public without reserving to myself the smallest pecuniary advantage, for the very purpose that I might recommend it without the possibility of incurring a charge of self-interest—after this, I say, it would be strange indeed if I hesitated to prescribe it for my own patients.

With these explanations, gentlemen, of some points which I thought you might not fully understand, I commend all my acts, which have been so publicly assailed by three of my colleagues, to your full, open, and impartial investigation, and I rely upon your justice and honour to condemn me if I am wrong, to defend me if I am right.

I am, gentlemen, yours very faithfully,

HORACE DOBELL, M.D.

SOURCE OF MUSCULAR POWER.

LETTER FROM THE REV. PROFESSOR HAUGHTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read in the *Medical Times and Gazette* of August 24 an interesting article on the "Source of Muscular Power," in which it is stated that "the specious and brilliant hypothesis of Liebig which traced the origin of all muscular power exclusively to the oxidation, within its own fibres, of the muscular tissue itself, . . . was finally demolished by the ingenious experiment of Fick and Wislicenus described in the *Medical Times and Gazette* of October 27, 1866. With it fell all the elaborate arguments and calculations which Haughton and Playfair, to say nothing of previous writers, had founded upon it, and a new hypothesis became necessary."

So far as my own calculations are concerned, they must stand or fall on their own merits, and not with Liebig's hypothesis, which was never used by me as a basis for those calculations.

In Part IV. of my paper on the "Natural Constants of the Healthy Urine of Man," published in the *Dublin Quarterly Journal of Medical Science*, vol xxx. p. 12 (1860), I arrived at the result that the excretion of 38·69 grs. of urea represents the work of lifting 100 tons through one foot. This result was obtained from considerations altogether independent of the truth or falsehood of Liebig's hypothesis. In my paper on the "Phenomena of Diabetes Mellitus," published in the same journal, vol. xxxi. p. 272 (1861), I made the following statement, which shows that I was well aware that the coefficient of work assigned by me to the urea was greater than Liebig's hypothesis could possibly account for.

The urea excreted may be converted into tons lifted one foot, by the rule I have elsewhere given—viz., 39 grs. of urea are equivalent to 100 tons lifted one foot.

In the healthy production of urea from proteinic compounds carbonic acid and water are also produced, as appears from the following equation, which is easily verified:—

(1) Proteine + (75) Oxygen = (2) Urea + (32) Carbonic acid + (19) Water.

The carbonic acid and water of this equation are both formed by the combustion of the carbon and hydrogen contained in the proteine, and the work due to this combustion [amounting to 24·33 per cent and 10·50 per cent. of the total work ascribed to the urea, by the combustion of the carbon and hydrogen respectively] is tacitly involved in the work due to the urea, etc."

The sentence in brackets of the preceeding quotation proves that at the time of writing it (1861) I believed that only 24·33 + 10·50 = 34·83 per cent. of the work ascribed by me to the urea, could be accounted for by Liebig's hypothesis, leaving two-thirds of the work done not explained.

After the publication of this paper, I discovered a blunder that I had made in reducing Favre and Silbermann's measurements to Fahrenheit degrees—a blunder which necessitates the raising of the preceding numerical estimates in the proportion of the Centigrade to the Fahrenheit degree (18 to 10); the correction of this error raises the percentage of work accounted for by Liebig's hypothesis from 34·83 per cent. to 62·69 per cent., somewhat less than two-thirds of the work done. This mistake, however, so far as the subject of my present letter is concerned, is fortunate, because it allows of little doubt as to my rejection of Liebig's hypothesis.

In point of fact, I am not conscious of having ever adopted this hypothesis, which always seemed to me to have been invented in the closet, and not honestly worked out by observation of nature; and I may here mention that I made observations on myself, by climbing mountains in the County Wicklow, which are as conclusive against Liebig's hypothesis as the excellent observations of Fick and Wislieenus. These observations were made before I had seen the results published by these observers, and would have been published by me long since, were it not that I shrank from even the appearance of claiming a priority of discovery to which Fick and Wislicenus were fully entitled by their priority of publication.

Throughout my investigations on the excretion of urea, I have assumed it to have a representative value, to be determined strictly by observation, and not by *à priori* reasoning; and I shall give up all the consequences of my calculations as soon as they are proved to be inconsistent with a single well-ascertained fact. I am not prepared, however, to abandon the results obtained by me from patient observation of nature,

honestly questioned, because Liebig's hypothesis about the source of muscular force, with which they have no connexion, has been proved to be erroneous. I am, &c.

Samuel Haughton.

Trinity College, Dublin, September 2.

SURGICAL PATHOLOGY.

Letter from Mr. Frederick Churchill.

[To the Editor of the Medical Times and Gazette.]

Sir,—I notice in Mr. Gant's paper on the "Pathological Practice of Surgery" certain opinions stated, which, not being generally admitted, require some explanation. I should therefore feel obliged if, through the medium of your columns, you would allow me to direct Mr. Gant's attention to the subject.

He commences by stating that "pathology is the science most nearly pertaining to Surgery," and he goes on to say that "a considerable portion of Surgical treatment yet remains empirical," and is "so far aimless, and as often, therefore, unsuccessful." If this be the condition of Surgical science at the present day, it may be well asked what progress have we made. But surely we must go back to the time of the barber-chirurgeons, when Surgery was in its infancy, to see it in such a gloomy condition developing from a manipulative and empirical art to the more noble position of a pathological and reparative science.

The importance of founding Surgery upon a pathological basis has long been taught, because to be a science it must be pathological. I therefore can trace no difference between practising Surgery scientifically and pathologically.

The barber-chirurgeon arrested hæmorrhage very expeditiously by cauteries, little heeding the result which pathology has taught Surgeons of the present day to anticipate. By the use of multiple unguents and dressings he proposed to heal amputation wounds; pathology teaches us that these are subversive of healing. An accurate knowledge of pathology is more important to the Surgeon than to the Physician; it is upon information derived from this source that he proceeds to operate or to palliate, as the case may be. The Physician, seldom certain of the exact pathological condition, has no such guarantee for his treatment.

If, as I have endeavoured to prove, Surgery, to be scientific, must be pathological, the term "Pathological Operative Surgery" would be inaccurate; for the Surgeon proceeds to operate according to the rules laid down, after having made out the exact pathological condition, removing as little of sound texture as is consistent with the removal of the entire disease. He does not operate pathologically; his idea is not to encompass the disease, but to avoid it.

Mr. Gant says that wounds in arteries heal by primary adhesion, "whether the wound be incised and partial, as a slit in the vessel, or a complete division of its calibre;" but all wounds of arteries tend to gape from the peculiar structure of their coats and their constant dilatation by the force of the blood. Especially is this the case in transverse wounds of arteries, where "the retraction of the coats is so great as to cause the wound to assume somewhat of a circular form" (Erichsen, fourth edition, p. 155), so that primary adhesion would be impossible.

Mr. Gant, by, I trust, a mere *error scribendi*, alludes to the ligature "dividing the two outer coats only." The ligature, as a rule, divides the two internal coats, "*intima et media*;" and I believe with Mr. Gant that the wound is so clean cut that "the textures are reunited in a manner precisely similar to that of any other soft texture." Thus the sealing up of the internal calibre of the artery by plastic lymph and coagula must be more speedy and complete than where the coats are left entire, as in acupressure; and by the use of the "temporary reef-knot," its removal may be effected with an equal amount of safety in a shorter space of time.

Mr. Gant says that "the formation of clot on behalf of a wounded artery" is "only a temporary provision for the arrest of hæmorrhage." My experiments have proved that, besides the inorganic clots which serve a temporary purpose, there are in most cases firm fibrinous clots just above the ligature, which ultimately become incorporated with the vessel to form a fibrous cord up to the first collateral branch.

As regards the treatment of incised wounds, which has received special attention from the Profession since the introduction of carbolic acid, there are two views under investigation. The one party maintain that a wound should be closed as soon as possible, so as to prevent the access of air, and to check putrefaction. The other party propose that the wound should be left open for some hours, so that all chance of recurrent hæmorrhage, or the collection of clots in the interior, is prevented; by this means most of the ligatures may be removed before the wound is finally closed. This latter view is perhaps the most rational, and Mr. Gant appears to be of the same opinion. Mr. Gant's treatment of fractures is somewhat novel, though it may be pathological; few Surgeons would like to run the risk of not setting a fracture for ten days or a fortnight after its occurrence. Mr. Erichsen says that "in transverse fractures the union appears to take place directly or immediately" (p. 223). The subject of Surgical pathology is one of increasing interest and importance, and it is for this reason that I have ventured to criticise Mr. Gant's opinions. I am, &c.

Frederick Churchill, C.M., M.R.C.S.

ABYSSINIA.

Letter from Dr. H. MacCormac.

[To the Editor of the Medical Times and Gazette.]

Sir,—If ten thousand men, more or less, depart on an expedition to this far-off land, 10 per cent. may perish owing to the casualties of war and the hazards of disease. But the risks that attend the latter, at least, can be greatly mitigated by Medical and sanitary skill. I have been in Africa myself, and have a vivid recollection of the exigencies of the climate. The great danger that awaits the expedition resides in the border land between the sea coast and the upland region, or Abyssinia Proper. This last, it seems, is a very healthy climate. Mr. Parkyns, whose interesting volume should now be carefully referred to, gives striking instances of the great rapidity with which wounds heal there. The jungle, however, between the uplands and the coast, should be hurried through with the least practicable delay. A body of artificers, pioneers and others, ought to precede the little army, so as to have tents set up and provisions prepared, when possible, before the arrival of the main corps. Good cooks are as essential as good Doctors.

Every soldier ought to have a pair of light well-knit flannel waistcoats, ditto stockings, ditto drawers, ditto cummerbands, a light and a strong pair of shoes with broad and level soles, straight inside. Each soldier should have a white waterproof silk cape with cowl. Each soldier should have a light well-made silk umbrella. Each soldier ought to have a collapsible india-rubber bed, or at least cloth of the same material, to keep him, while sleeping, from contact with the soil. *Tentes à l'abri* are found very useful by the French in Algeria, and, I dare say, some useful help and direction might be had from the French army administration in Algiers.

The soldiers ought to carry as little as possible on the march. If it should be practicable to take strong light covered carts, partly to convey stores and partly available as ambulances, it would seem most desirable. In crossing the deserts to California the Americans use these carts, drawn by mules. They are a fortress by night, a security by day. At night they sleep in them; by day the sick, the weary, the footsore, and the wounded travel and rest in them. The traverses in Abyssinia surely cannot be much worse than the kloofs at the Cape of Good Hope or the gorges of the Rocky Mountains in America.

No morning march ought to begin unless prefaced by an imperial pint of warm coffee, with biscuits from the tins and a slice of broiled bacon. I am persuaded that much mortality accrues in India from the practice of fasting early marches. Coffee rations, coupled with the adequate amount of sugar, could be put up in tin cases, roast, ground, and ready for immediate use. The same may be said of cocoa and of tea severally. For dinner there ought to be fresh meat, soup well seasoned, with brown meal biscuit from the tins, and afterwards, if possible, a little cooked meat in any available form. While in the jungle a draught of quinine ought to be taken every morning. Dilute sulphuric acid should be constantly at hand to remedy or even avert diarrhœa. Every soldier should be furnished with a little case containing needles, thread, buttons, scissors, knife, matches, soap, brushes, and a bit of wax candle, also writing materials, and tobacco when made use of. As for spirits and wine, they must be left to the discretion of the Medical men. But they ought to be good of their kind and employed sparingly. Whenever and

wherever it is practicable and possible, each soldier should have a daily wash. The practice of shaving, however, should be wholly given up. So ought the use of the stock round the neck. A loose handkerchief is infinitely better. A light havresac would be found a useful addition to the kit.

Soldiers cannot be too earnestly cautioned not to drink on the march, nor indeed to drink water at any time. Weak tea or weak coffee, made in quantities and drunk when cold, without sugar, is almost infinitely preferable. The Chinese appear never to drink cold water, but only cold tea—tea made by boiling water and then drunk warm or cold. By resorting to this expedient the germs of parásitic animals and of diseases, as conveyed by water, would be alike set at bay. I met with people in America whose entire drink during the hot season, and where the water was bad, consisted of cold coffee. I tried it myself, and found it excellent. And, indeed, I cannot too earnestly urge the expedient on the attention of the Medical gentlemen and others immediately or prospectively in charge of, or connected with, the contemplated expedition. The means and appliances here urged would doubtless prove costly, but human life is far more costly, and warrants every outlay and every expedient calculated to preserve it.

I am, &c. HENRY MACCORMAC, M.D.

7, Fisherwick-place, Belfast, September 2.

"WAS LUTHER MAD?"

LETTER FROM DR. W. DOMETT STONE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The above question, which was put at a recent trial to the two Physicians examined—Dr. Wood, of St. Luke's, and Dr. Williams, of Bethlem—and answered by them in the affirmative, has given rise, in certain circles, to an amount of discussion hardly conceivable. As I think the present an oppportune time for a controversy on the subject, and as it is an indisputable fact that no matter connected with Medicine can be better ventilated than in the columns of the *Medical Times and Gazette*, I feel that I need not apologise for re-broaching the question in your paper.

To be brief, I will at once affirm that, in my opinion, Luther was of unsound mind. This assertion I base on various extracts gleaned from different works, the veracity of which, I believe, has never been impugned. In order to prove that the illusions from which Luther suffered were not transient, nor "momentary and fugitive eccentricities," as has been asserted by Dr. Forbes Winslow, but "fixed and abiding impressions," I adduce the following illustrations, which appear to me to prove conclusively that the dogma propounded by Dr. Wood and Dr. Williams is far from unphilosophical. I would, by way of preface, remark that Luther, in referring to his illness, wrote in January, 1532, "My malady, which consists of a series of headaches, vertigoes, and so on, is decidedly not natural; nothing I take remedies it in the slightest degree, though I implicitly obey my Physician's directions." In the month of May, 1530, he remarked:—"When I try to work, my head becomes filled with all sorts of whizzing, buzzing, thundering noises, and if I did not leave off on the instant, I should faint away. For the last three days I have not been able even to look at a letter. My head has lessened down to a very short chapter, soon it will be only a paragraph, then only a syllable, then nothing at all. . . . The day your letter came from Nuremberg, I had another visit from the devil. I was alone, Vicus and Cyriacus having gone out, and this time the evil one got the better of me, drove me out of my bed, and compelled me to seek the face of man." On another occasion he wrote:—"When I was at Coburg, in 1530, I was tormented with a noise and buzzing in my ears, just as though there was some wind tearing through my head. The devil had something to do with it." "For nearly three months," he writes on October 8, 1527, "I have been languishing, not so much in body as in mind, so that I have scarce been able in that whole time to pen as many lines. These are the persecutions of Satan." On February 9, 1543, he writes:—"My head is so weak, so unsteady, that I can neither read nor write, especially when fasting." On March 14, same year, he says:—"I am feeble and weary of life; I would fain bid adieu to the world, which is now given over to the Evil One." To Amsdorff he says, on August 18, in the same year:—"I write this to thee after supper, for when fasting I cannot, without great danger, even look at a book or a paper. I don't understand this wretched malady at all—whether it is one of Satan's blows at me or the effect of nature's decay." In November, 1543, he says:—"I take it that my malady is made up, first, of the ordinary weakness of advanced age; secondly, of the results of my long labours and habitual tension of thought; thirdly, above all, of the blows of Satan; if this be so, there is no medicine in the world that will cure me."

In order that I may not be misunderstood in what I wish to convey, I would have the Profession comprehend distinctly that I do not assert that the existence of any one of these symptoms indicates aberration of intellect, but I do submit that, if they are taken collectively, they are not unfrequently symptomatic of incipient insanity.

Now for facts denoting unsoundness of mind, as described by the "great Reformer" *in propria persona*. "Once in my monastery at Wittemburg," he writes, "I distinctly heard the devil making a noise. I was beginning to read the Psalms, after having celebrated matins, when, interrupting my studies, the devil came into my cell, and thrice made a noise behind the stove, just as though he were dragging some wooden measure along the floor. As I found he was going to begin again, I gathered together my books and got into bed. . . . Another time, in the night, I heard him above my cell, walking in the cloister; but, as I knew it was the devil, I paid no attention to him, and went to sleep."

One evening, at supper, Luther said—"When the devil comes to me in the night, I say to him, 'Devil, I must now sleep; for it is the command and ordinance of God that we labour by day and sleep by night.' If he goes on with the old story, accusing me of sin I say to him, to vex him, 'Holy spirit Satan, pray for me!' 'Go,' I say to him, 'Physician, cure thyself!' 'The devil,' Luther says, 'can so completely assume the human form, when he wants to deceive us, that we may very well lie with what seems to us a woman of real flesh and blood, and yet all the while 'tis only the devil in the shape of a woman. 'Tis the same with women, who may think it is a man in bed with them, yet 'tis only the devil; and when it is considered that the result of this connexion is oftentimes an imp of darkness, half mortal, half devil, such cases are peculiarly horrible and appalling. The devil, too, sometimes steals human children; it is not unfrequent for him to carry away infants within the first six weeks after their birth, and to substitute in their place imps, called in Latin *supposititii*, and by the Saxons *kilkropff*." "Eight years ago I myself saw and touched, at Dessau, a child of this sort, which had no human parents, but had proceeded from the devil. He was twelve years old, and in outward form exactly resembled ordinary children. He did nothing but eat, consuming as much every day as four hearty labourers or threshers could. If any one touched him, he yelled out like a mad creature, and with a peculiar sort of scream. I said to the princes of Anhalt, with whom I was at the time, 'If I had the ordering of things here, I would have that child thrown into the Moldau, at the risk of being held its murderer.' But the elector of Saxony and the princes were not of my opinion in the matter." When the doctor had done relating his story, Michelet tells us in his life of Luther, some one asked him how he could have made up his mind to throw the child into the river. "Why," he replied, "children like that are, in my opinion, a mere mass of flesh and bone, without any soul: the devil is quite capable of producing such things."

Here I will stop—not for want of more facts, but from fear of encroaching to too great a length on your space. Suffice it to say that I think the above can hardly be designated "evanescent states of morbid thought, and transitory phases of disturbed sense." I am, &c.

W. DOMETT STONE, M.D., F.R.C.S. (Exam.).

Ashford, near Staines, August 24.

ANECDOTE OF FARADAY.

LETTER FROM MR. THOMAS E. AMYOT.

[To the Editor of the Medical Times and Gazette.]

SIR,—A perusal of the interesting biographical sketch in your last impression has brought to my mind the recollection of a certain Friday evening spent at the Royal Institution some thirty years ago, on which occasion the late Professor, always equally willing and able to interest and instruct, proved the versatility of his attainments and his happy readiness in such a very characteristic manner, that I cannot resist relating the circumstance, although my memory of some of the details may be imperfect. I am not sure, for instance, of the name of the lecturer or of the title of the lecture advertised for the evening, but I know that the theatre was well filled, and that the table

was thickly covered with illustrative specimens (I think, tropical shells), and that nine o'clock struck, and no lecturer was there. In a few minutes it was announced that some accident or family loss prevented his appearance, and the disappointed audience were preparing to depart, when Professor Faraday, after a few moments' conversation with the President, declared his willingness to try and say something about the beautiful collection of objects on the table if the audience would grant him a few minutes in which to examine them.

I need hardly say that the offer was received with hearty applause. He examined and sorted the specimens with great expedition, and proceeded to deliver a most delightful and instructive lecture.

The simplicity and modesty with which he tendered his services, the kindness and good nature which prompted the undertaking, and the ease and ability with which he handled the subject, were all of them highly characteristic of Michael Faraday. And I trust that some of your older readers may have been present on the occasion, and may set me right if I have in any way erroneously stated the circumstances.

The good old gentleman who used to announce "ten o'clock" with such emphasis, was never more of a bore than on the Faraday evenings. I am, &c.

Diss, Norfolk, September 3. THOMAS E. AMYOT.

THE UNIVERSITY OF GIESSEN AND SIR DOMINIC CORRIGAN, BART., M.D.

LETTER FROM DR. A. HIRSCH.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have been requested by the Medical Faculty of the University of Giessen to forward to you the enclosed copy of their answer to some charges made against them by Sir Dominic Corrigan, and to ask you to be good enough to insert the same in the next edition of the *Medical Times and Gazette*. I beg to add that the original is in my possession, and may be inspected at any time. Trusting that you will kindly comply with their request, and thanking you beforehand for this favour, I am, &c. A. HIRSCH, M.D.

German Hospital, Dalston, September 2.

"Sir Dominic Corrigan has, in a speech delivered before the British Medical Association at Dublin, accused some Universities of Germany, and especially the University of Giessen, of granting diplomas *in absentiâ*, and of keeping an agent for that purpose at Glasgow. Such an assertion, as far as it concerns our own University, is entirely untrue. In conformity with the laws of the Medical Faculty existing since 1846, no Medical degree can be conferred on foreigners *in absentiâ*, with the only exception of such degrees as are granted *honoris causâ*. These are given gratis. Whoever applies here for a diploma of M.D. must submit to a personal examination before our Medical Faculty, and in that examination the same scientific demands are made as of candidates of this country, and it must be previously shown by authentic documents that he has received a complete classical education, and that he has, during at least three years, pursued his studies of Medicine at a University or a College of acknowledged high rank. Consequently, *in absentiâ* and without a previous examination, no diploma can be granted; nor has the Medical Faculty any agents either in England or elsewhere.

"In this present year no Englishman has obtained a diploma from us, and since the year 1861 only three candidates have succeeded, after having passed their examination before our Faculty at Giessen—viz., H. Eaton, of Huddersfield, in 1861; F. M. Clarke, of London, in 1862; John Walter Bury, of London, in 1865. Two others had not the degree conferred on them, in consequence of not having satisfactorily passed their examination. In 1865 M. John Martin, of Portsmouth, obtained the degree of M.D. *honoris causâ*—*ergo*, gratis.

"If there be any diplomas existing under our name granted *in absentia* since 1846, we declare them to be forgeries; and if any person represents himself to be an agent commissioned by the said Faculty, and receives money for pretended services, and delivers diplomas, we declare him to be an impostor, making a fraudulent use of our name.

"We expect that Sir Dominic Corrigan, being now better informed through this our declaration, will, as a gentleman, revoke his unfounded imputation.

"F. WILBRAND, M.D.,

"Dean of the Medical Faculty of the

"Giessen, August 18. "University of Giessen."

NEW BOOKS, WITH SHORT CRITIQUES.

Symon's Monthly Meteorological Magazine for August, 1867.

Journal of the Scottish Meteorological Society for July, 1867. London: Stanford. Edinburgh: Blackwood.

**** The former contains a most interesting account of the wonderful rainfall of the night between July 26 and July 27 as observed in the south and east of England, whilst the most important article in the latter is on the colds of March, 1867.

On the Use of Strychnine in Epilepsy. By Walter Tyrrell, M.R.C.S., Malvern Cross. Pp. 22.

**** Part of this little work appeared in our columns, and a communication on the same subject by Mr. Tyrrell has so recently appeared that its merits must be fresh in every one's memory.

Arithmetic Simplified for General Use. By Neil Arnott, M.D., F.R.S., Author of the Elements of Physics, etc.

**** In this little work Dr. Arnott, whose scientific labours are universally known, has managed to simplify arithmetic to a wonderful extent, the rules given being so plain and intelligible.

On Pain and other Symptoms connected with the Disease called Hysteria. By Dennis De Berdt Hovell, F.R.C.S., etc. London: Churchill. Pp. 44.

**** Mr. Hovell takes a sensible view of the symptoms referred to. He shows that to the patient they are entities not to be got rid of by a scolding, but, it may be, to be thrown off by confidence. The patient should therefore be strengthened, her mental and moral faculties fostered until they obtain their natural ascendency, and the disease will pass away of its own accord.

On the Treatment of Consumption. By C. Thomason Thompson, M.D., M.R.C.P. Second Edition. London: Hardwicke. Pp. 29.

**** Dr. Thompson's plan is to make the other emunctories of the body apart from the lungs—particularly the skin—take upon them their proper share of function, and thus relieve the lungs of any additional burden laid upon them. His plan of stimulating the skin is by moderately cool bathing, or by cold rapidly applied and followed by friction. The liver is also to be especially attended to.

Electrolysis in Aneurism. By John Duncan, M.A., M.D., etc., and Thomas R. Fraser, M.D., F.R.S.E., Assistant to the Professor of Materia Medica in the University of Edinburgh. Edinburgh: Oliver and Boyd. Pp. 62.

**** This pamphlet, a reprint from the *Edinburgh Medical Journal*, consists of two parts, the former consisting of some cases by Dr. Duncan where electricity was employed in the treatment of aneurism, full of practical information as to what should be done, what left undone; the latter of a no less admirable investigation by Dr. Fraser as to the effects of galvanism on blood and other albuminous fluids.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 29, 1867:—

Charles John Sells, Guildford, Surrey; Reginald Eager, Guildford, Surrey; Burford Norman, Guy's Hospital; Roger Pennington Goldsworthy, Hatfield, Doncaster; Christopher Jordison, South Ockendon, Essex.

The following gentlemen also, on the same day, passed their First Examination:—

William Milligan, University College Hospital; John Thomas Darby, University College Hospital.

APPOINTMENTS.

**** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CALTHROP, C. W., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Manchester Royal Eye Hospital.

EDISON, Dr. J. E., has been appointed Physician to the Leeds House of Recovery.

HALL F., M.R.C.S.E., has been appointed Surgeon to the Leeds House of Recovery.

MACALISTER, ALEXANDER, L.R.C.S.I., L.K.Q.C.P., Demonstrator of Anatomy Royal College of Surgeons, Ireland, and Hon. Sec. Royal Geological Society of Ireland, has been appointed one of the Surgeons of the Adelaide Hospital, *vice* Dr Morgan, resigned.

YOUNG, P. A., M.B., C.M., has been appointed Resident Surgeon to the County and City of Perth Infirmary, *vice* D. A. Burt, L.R.C.S. and P., resigned.

BIRTHS.

DE PASQUIER.—On September 1, at 62, Pall-mall, the wife of C. F. De Pasquier, F.R.C.S., of a son, stillborn.

FLEMING.—On September 3, at 17, Princes-street, Stranraer, Wigtownshire, N.B., the wife of E. Fleming, M.D., L.R.C.S. Edin., of a son.

FOSTER.—On August 31, at Edgbaston, Birmingham, the wife of B. W. Foster, M.D., of a son.

HASSE.—On August [illegible], at Konigslutter, Brunswick, the wife of Dr. Hasse, M.D., of a daughter.

HOOD.—On August 28, at 65, Upper Berkeley-street, Portman-square, the wife of W. Hood, M.D., of a son.

JACKSON.—On August 23, at Malta, the wife of P. N. Jackson, Staff-Surgeon, of a daughter.

LOVEGROVE.—On August 27, the wife of C. Lovegrove, M.D., of Sevenoaks, of a son.

PARSONS.—On August 28, at 18, Liverpool-street, Dover, the wife of C. Parsons, M.D., of a daughter.

PLUMBE.—On August 26, at Maidenhead, the wife of Dr. Plumbe, of a daughter.

SPRATLY.—On September 3, at St. Paul's-road, Rock Ferry, Cheshire, the wife of Dr. S. Spratly, of a son.

WEBB.—On September 1, at 19, Grosvenor-road, Cloughton, Cheshire, the wife of V. Webb, Staff Surgeon-Major, of a daughter.

WILSON.—On August 18, at Croft Head, Littleborough, the wife of H. S. Wilson, M.D., of a daughter.

WYLD.—On September 1, at 12, Great Cumberland-street, Hyde-park, the wife of G. Wyld, M.D., of a son.

MARRIAGES.

CARRE—WALLACE.—On August 29, at the Church of Our Lady of Victories, Clapham, Dr. L. A. Carre, of Bath, to Mary Ellen, daughter of the late J. Wallace, Esq., of Bermondsey.

LATHBURY—STAINTON.—On August 27, at St. Mark's, Tollington-park, T. A. Lathbury, M.R.C.S.E., Finsbury, to Mary Agnes, eldest daughter of A. Stainton, Esq., Walthamstow. No cards.

MURRAY—SHAKESPEAR.—On August 28, at St. Luke's, Jersey, W. S. Murray, M.B., Surgeon 60th Regiment, to Rosaline Louisa, second daughter of Colonel G. B. Shakespear, Royal Artillery.

DEATHS.

CAMPBELL, J., Surgeon H.M. 28th Regiment, at Upper Norwood, Surrey, on September 1.

DALTON, P. H., F.R.C.S., at 41, Lansdowne-place, Brighton (and of Sackville-street, London), on August 26.

KINGDON, R., M.D. (formerly of Lostwithiel, Cornwall), at New Plymouth, New Zealand, on June 20.

LYNDALL, J., M.R.C.S.E., at 17, Sebbon-street, Canonbury, on August 30, aged 75.

OWEN, G., M.R.C.S E., of Machynlleth, Montgomeryshire, on August 17.

TABOIS, J. A., M.R.C.S.E., formerly of Dieppe, France, on August 27, aged 69.

VACANCIES.

ROYAL FREE HOSPITAL.—Physician and two Junior House-Surgeons.

ST. PANCRAS WORKHOUSE AND INFIRMARY.—Medical Officer.

WEST LONDON HOSPITAL, HAMMERSMITH.—Junior Physician and Junior Surgeon.

POOR-LAW MEDICAL SERVICE.

APPOINTMENTS.

Calne Union.—Donald Campbell, M.D. and C.M. Glasgow, to the whole Union.

Halifax Union.—Robert Farrar, L.R.C.P. Edin., M.R.C.S. Eng., L.F.P. & S. Glasgow, L.S.A. Lond., to the Hipperholme District.

Machynlleth Union.—Dugald Campbell, M.D. Glasgow, M.R.C.S. Edin., L.M. Edin., to the Llanwrin District.

Skipton Mallet Union.—Frederick Keene, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Fourth District.

Stepney Union.—George A. Rogers, M.R.C.S. Eng., L.S.A., to the Ratcliff District; Thos H. Dilworth, L.F.P. & S. Glas., L.M., to the Shadwell and Wapping District.

JOSEPH TOYNBEE.—The friends of this lamented Surgeon will be interested in learning that a most able appreciative obituary notice, occupying ten pages, appears in the number of the *Archiv für Ohrenheilkunde* just published, from the pen of its distinguished, editor Professor von Tröltsch, of Wurzburg.

M. VELPEAU has left his valuable collection of Surgical instruments, several of his own invention or improvement, to be divided equally between two of his pupils, MM. Desprès and Guyon.

ACADÉMIE DE MÉDECINE.—Professor Virchow has just been elected a Foreign Associate by an overwhelming majority, the other candidates being MM. Brown-Séquard, Bunsen, and Donders. At the same meeting Professor Helmholtz, of Heidelberg, was elected a Foreign Correspondent.

BEQUESTS.—The late Miss A. M. Prinald, of Eltham, has bequeathed £500 each to the Royal Hospital for Incurables, Putney, and to the Asylum for Idiots; £200 each to the Convalescent Home for Females, Bayswater, to the Hospital for Consumption, and Hospital for Diseases of the Chest; £100 each to the Cancer and London Hospitals, and large sums to other institutions not strictly Medical.

THE Zouave Jacob, whose "occupation's gone" even more certainly than Othello's was, is reported to have become insane, and to have been transferred to Charenton. He was offered 3000 francs by a photographer for the copyright of his portrait, and is said to have refused the offer with scorn. He was guilty of a good deal of blasphemy in instituting open comparisons between his miracles and those of the Saviour; but it is only just to say that the wretched man gained little substantial benefits by his *charlatanerie*.

QUEEN'S COLLEGE, BIRMINGHAM. — WINTER AND SUMMER SESSIONS, 1866-67.—The following is the list of Prizes and names of Prizemen:—*Descriptive and Surgical Anatomy:* Medal, Mr. T. H. Ravenhill; Second Certificate, Mr. John Green; Third Certificate, Mr. A. J. G. Waters. *Practical Anatomy:* Medal, Mr. T. H. Ravenhill; Second Certificate, Mr. John Green; Third Certificate, Mr. A. J. G. Waters. *Junior Anatomy Class:* Medal, Mr. E. Smith; Second Certificate, Mr. W. R. Lambert; Third Certificate, Mr. E. B. Wood. *Surgery:* Medal, Mr. G. Ashmead; Certificate, Mr. J. Brown. *Medicine:* Medal, Mr. G. Ashmead; Certificate, Mr. John Green. *Physiology:* Medals, Mr. T. H. Ravenhill and Mr. W. H. Lambert (equal); Certificate, Mr. J. Green. *Chemistry:* Medal, Mr. E. Smith; Certificate, Mr. E. B. Wood. *Materia Medica:* Medal, Mr. E. B. Wood; Certificate, Mr. W. H. Lambert. *Midwifery:* Medal, Mr. W. F. M. Jackson; Certificates, Mr. J. E. Brooks and Mr. W. H. Lambert. *Botany:* Medal, Mr. John Tunley; Certificate, Mr. John Martin. *Forensic Medicine:* Medal, Mr. A. J. G. Waters; Certificate, Mr. G. England. *Practical Chemistry:* Medals, Mr. E. Smith and Mr. E. B. Wood (equal); Certificate, Mr. J. E. Brookes.

THE election for a Coroner to the borough of Liverpool, which took place on Thursday, the 29th ult., issued in the appointment of Mr. Clarke Aspinall. So strong and unanimous, however, was the expression of opinion in favour of a Medical Coroner, made by the Medical men of the town, that it is found impossible quite to disregard it. It is advised, therefore, that a part of the duty of a special committee, about to be appointed, shall be to investigate the claims of the Medical and legal professions respectively, so as by their determination to guide the Town Council in any future election. The present Coroner, who is brother to the Recorder of Liverpool, was for six years a leading member of the Town Council, and is universally and most justly esteemed. By profession he is a solicitor, and on his entering for the first time on the duties of his office, on the Saturday after the election, a very large number of gentlemen, representing both the common law and equity branches of the legal profession, together with other influential men, were present in the Court to offer him congratulations.

DAVY AND FARADAY.—"The greatest discovery you ever made," said President Gilbert to Sir Humphry Davy, "was the discovery of Faraday."

SUNDERLAND INFIRMARY.—At the annual meeting of Governors of this institution in July last it was resolved, on the motion of one of the Surgeons, G. B. Morgan, Esq., that the election of House-Surgeon should, for the future, rest with the Committee of Management, of which the Medical officers form a part, and not, as heretofore, with the large body of Governors.

CHARGE AGAINST A UNION MEDICAL OFFICER.—IMPORTANT TO THE PROFESSION.—At a weekly meeting of the Worcester Board of Guardians, held on Thursday morning, August 29, Dr. Woodward, one of the Union Medical officers, was charged with neglecting one of his pauper patients. It would appear that a woman named Elizabeth Rea took her child a short time since to him, as it was suffering from some complaint. She alleges that Dr. Woodward looked at the child, and told her that he could do nothing for it, as it was past Medical aid. The woman took the child home, gave it some brandy, and it got better, and it was afterwards taken to another Medical man, and is now quite recovered. Dr. Woodward, in reply to the charge, said that he had acted in a straightforward manner, and that he gave the case every attention, but that in his opinion the child was past Medical aid, and near death. The Board thought it was a case for further inquiry, and have referred it to the Poor-law Board.

CHOLERA. — Though the Registrar-General reports twenty-two cases of cholera and choleraic diarrhœa, we think there is no reason to believe that these are any but "sporadic" cases. There appears nothing to support the idea that the epidemic which has passed over Italy has reached this country. On the Continent, too, though still serious, it has ceased to exhibit the virulence which characterised its outbreak. From the *Italie*, a Florence journal, we learn that the disease is dying out. In Leghorn, on the 29th ult., there were only twenty-five cases and eleven deaths; in Genoa, on the 28th, thirty-one cases and eleven deaths; in Milan, twenty-five cases and fifteen deaths; in Brescia, twenty-eight cases and three deaths. The *Italia*, a Naples paper, endeavours to calm the fears of its readers by comparing the mortality during the last

with that during the present epidemic, and remarks that "ninety-seven cases during a month in a city with 650,000 inhabitants, cannot be regarded as an epidemic." It was asserted in some of the journals that cholera was raging at Toulon, but it is pleasant to find that the Mayor of Toulon has written to the *Moniteur* to give the statement a decided and unequivocal denial. In some parts of America the cholera shows itself to be most malignant; in others the mortality is comparatively small. Thus, while Texas suffers severely, in New Iberia, in Louisiana, with a population of 4000, there are only four deaths per day. In India cholera still prevails in the north-west provinces of the Punjaub.

Deaths from Chloroform.—In the August number of the *New York Medical Journal*, Dr. Dubois reports a case of death from chloroform of a very interesting character. A patient, aged 35, had twice been submitted to it for operations on the testicle. Somewhat more difficulty than usual was found in bringing him under its influence. In the second operation the cord had been included in ligatures, and as one of these had not come away about three weeks after the operation it was resolved to put him under chloroform again and remove it. About a drachm of quite pure chloroform was applied on a small towel in the form of a cone, having its apex well opened. He breathed well, and seemed to be rapidly becoming affected. "The second stage coming on, he threw his arms about so that it required an assistant to hold him, though not to the extent that one frequently sees. The breathing suddenly becoming stertorous, the chloroform was discontinued, it having been renewed once to the extent of one drachm. The stertorous breathing was followed by a spasm, causing the body to assume the condition of opisthotonos and to slide down in the bed, the face at the same time assuming a peculiar expression which it is impossible to describe, but, alarming me, caused me to throw water on the face and abdomen. The limbs now became perfectly relaxed, the spasm having ceased, having lasted about half a minute." Galvanism was tried without avail, and the patient died in from five to seven minutes after he was reading a newspaper before inhalation commenced. At the autopsy, there was found a slight accumulation of fat over the pericardium and heart. The structure of the heart was firm, the left ventricle being contracted and nearly empty, the right containing a moderate quantity of blood, and the auricle largely distended. The kidneys much resembled the large red kidney described by Bright.—In the same number of the *Journal*, Dr. Gouley refers to a case he met with at the Belle Vue Hospital in 1860. A stout Irishwoman, about 40, was brought in for an injury to the elbow, and about two drachms of pure chloroform were carefully administered in order that it might be examined. Before this could be done, the patient ceased breathing and died. The heart was found somewhat fatty, as were also the liver and kidneys, and the lungs were hypostatic.

Cases of Fatal Poisoning from Eating the Roe of the Torpedo. — In June, 1864, a man, aged 22, was carried to the Shanghai Hospital, and placed under the care of the late Dr. James Henderson, by a number of friends, at 7 a.m. When examined he was quite dead, though the body was warm. His friends stated that at 6 o'clock that morning he had eaten largely of the roe of the torpedo or electric fish, and half an hour afterwards, on attempting to walk, he staggered and fell, but never spoke. At half-past eight the same morning a woman was carried in, in a comatose state; the face and hands were much swollen, and when roused she complained of great oppression about the heart and stomach. She was treated with powerful emetics—sulphate of zinc, mustard, etc.; with cataplasms all over the body; she vomited freely, but continued in a half senseless dreamy state for twenty-four hours. She left on the third day after admission, quite well; no rash appeared on the body. On inquiry, the friends who brought this woman stated that eight persons had breakfasted off the fish, but thought that only four or five had partaken of the roe. Men were instantly despatched to bring all these to the Hospital; two men, however, died on the way, and the bodies were carried home again. One more was brought in exactly in the same state as the woman, with the addition of swollen face and hands; the whole body appeared puffy, the breathing much oppressed, and the mouth very dry. He was treated with emetics, sinapisms, and stimulants, and recovered. As these fish are sold as an article of food in many towns frequented by English sailors, it is strange that the poisonous properties of the roe have not been placed on record, so far as we know, by any writer on toxicology. Amongst the Chinese the fact that the roe is poisonous, while the rest of the fish appears to be wholesome, is almost universally known.—From *Memorials of James Henderson, M.D.*, 1867, p. 162.

A Remarkable Affection of the Skin.—Geh. Med.-Rath Heusinger relates the particulars of a remarkable case he has had under his inspection at intervals at Marburg since 1863. A peasant lad then 16 years of age applied on account of epistaxis, to which he was and has continued liable, there being nothing else of note about him excepting that he was of a much more delicate appearance than the other rough peasants among whom he lived. He was soon found, however, to exhibit the remarkable phenomenon that whatever part of his skin was pressed, from his head to his feet, weals immediately arose. Figures of all kinds traced on his arms, chest, back, etc., immediately arose in the most beautiful relief. It sufficed to trace the figure or writing with the end of the finger, and especially with some suitable instrument, as the end of a key. A letter or word so traced, in about half a minute the skin became red and smoothly raised, to be soon raised on white elevations, so that in two or three minutes the tracing had all the appearance of having been hewn out of the finest marble. The tracings continued apparent for from thirty to forty minutes, when, the elevations subsiding, the skin exhibited no longer the slightest vestige of the appearance, the spots in question not being distinguishable from any other parts of the surface. As in urticaria, a needle point could always draw a drop of serum from the elevations; and the production of these was attended with a rise of temperature in the part sensible both to the patient and the thermometer (1½° to 2½° C.). The man had been seen by every Practitioner in Marburg, and was a standing subject for amusement with the students. The last report of him refers to March, 1866, when the circumstances were as above.—*Virchow's Archiv*, June.

Monetary Comparison of the Os Uteri.—Professor v. Siebold, commenting upon the singular custom everywhere prevalent among obstetricians of comparing the degrees of expansion of the os uteri to pieces of money, observes that it is sometimes rather a puzzling matter when coins of foreign countries are alluded to in books. As to Germany, the comparison is made with every coin of the Confederation, groschens and kreuzers of various kinds, thalers, etc., *ad infinitum*; so that an accoucheur, much given to reading, would have to furnish himself with a numismatic collection. However, an amusing anecdote hangs on this practice. A midwife of Berlin, greatly sought for in the houses both of rich and poor, when she had occasion to call a Doctor in consultation, of course employed the monetary comparison in describing the progress of the labour to him, but always with this difference. When the patient was a rich person, she always designated it by means of gold pieces. "When I first saw her," she would say, "the os was open to the size of a ducat, and now it is as large as a double *frédéric d'or*." But amongst the common patients the comparisons always commenced with the *pfenning* or double *pfenning*, sometimes rising as high as a silver piece.—*Siebold's Lettres Obstétricales*.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. MacCormac.—Want of space has prevented the appearance of the paper.

A Constant Reader.—The fees can only be paid to the man that earns them and signs the receipt for them. Whether he would be justified in retaining them or in handing them over to his superior would depend on the terms of their agreement. If the assistant has agreed to give up his whole time and services to his superior for a certain consideration, the latter would be legally entitled to receive every farthing the assistant makes. The propriety of so doing is a different question, and is one which must be left to the discretion of the parties concerned.

A Student.—The College Registration will close on Tuesday, October 15, before which day it is desirable you should return.

Dr. Mayssor.—A correspondent begs to thank you for the interesting notice respecting the Sergeant-Surgeons published in this journal in reply to his inquiry.

Mr. Mackenzie.—Mr. Hilton delivered the last Hunterian oration. It was Dr. Denman who described William Hunter as a man of order, and John Hunter as a man of genius.

Aeronaut, Glasgow.—Dr. Bell Pettigrew has written and lectured on flight. One of the first persons who ventured to ascend in a balloon was John Jefferies, M.D. There is a portrait of him painted by J. Russell, and engraved by Caroline Watson.

A Collector.—The engraving is considered scarce. Roger Grant practised as an oculist in London; his name was removed from the plate and that of John Kerr substituted. Although only a private soldier, he was, on retiring from the army, appointed oculist to George I.

LAUDANUM.—POISONING BY MISADVENTURE IN SALFORD.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A paragraph of the above melancholy case having gone the round of the papers, which is calculated to mislead the public and seriously injure my business, I feel called upon to inform my friends and the public that I am not the only Mr. Robinson, Chemist, Salford; that the unfortunate mistake did not take place at my shop, but at the shop of another chemist of the same name, who is in no way related or connected with the writer. Trusting you will do me the favour to give this publicitity, as the only means of correcting a very erroneous impression, I am, &c.

BENJAMIN ROBINSON, Pharmaceutical Chemist.

Cross-lane, Salford, Sept. 3.

THE LATE DR. COSTELLO.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your notice of the death of this once well-known and excellent Surgeon contains an error in regard to his "Cyclopædia of Surgery." For many years the twelve parts you refer to did constitute all that was published, for it did not succeed as a pecuniary speculation, and Costello's means did not allow of his continuing the great expense of its production. It was a work, however, he was justly proud of, and when his affairs became in a more flourishing state he resolved on its completion, some twenty years after the publication of the first volume. After immense labour and the expenditure of no little money, he succeeded in completing the work, which now exists in the form of four large volumes, which should certainly be in every library of reference. Without going so far as its sanguine editor in the appreciation of its value or anticipation of its success, I may observe that, although falling far short of the first volume, the three last volumes contain much valuable matter, chiefly contributed by French Surgeons. I am, &c. J. C.

ANTEVERSION OF THE UTERUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In Dr. Meadows's "Manual of Midwifery" he speaks of anteversion as being of very rare occurrence, and thinking the following case would be interesting, I send it to you for publication:—

I was called to Mrs. — a few days ago, and found her suffering severely from labour pains. She had gone to her full time, but had been subject to difficult micturition for the last two months of pregnancy, with irregularity of bowels. On examination per vaginam, I came upon a large hard round mass, but was surprised to find no os. After searching about for some time, I found it pressing back in the hollow of the sacrum, so naturally concluded it was the fundus that I had at first felt. She had been in labour many hours, and appeared exhausted, so I gave her a dose of laudanum to lull the pains, and applied a bandage tightly round the abdomen, at the same time requesting her to lie on her back. At each interval between the pains I tried to press the fundus back and bring down the os, but I soon found nature did more than I could, and in less than an hour the child was born.

I do not think this a very rare case, but it bears out the opinion of, I think, Dr. Tyler Smith, who says, "In anteversion patients often go over their usual time of pregnancy." This woman expected to be confined at least three weeks before—that is, allowing 280 days from the appearance of her last menstrual discharge. I am, &c.

Grantham, August 27. ROBERT VACY ASH.

COMMUNICATIONS have been received from—

A CONSTANT READER; Mr. HEATON; A CONSTANT READER (Moffat); Mr. D. MACKENZIE; Dr. STICKLING; Dr. MACLAGAN; Dr. MACCORMAC; Dr. DOBELL; Mr. J. BAXTER LANGLEY; Rev. Prof. HAUGHTON, M.D.; Dr. SANSOM; Dr. HIRSCH; Mr. KITTS; Mr. CRAVEN; Dr. CUTHBERTSON; Mr. AMYOT; Dr. CHURCHILL; Dr. BALTHAZAR FOSTER; Mr. PARTRIDGE (Calcutta); Mr. F. J. GANT; Dr. DICKSON; Dr. CORFE; Mr. J. CHATTO; Dr. W. DOMETT STONE; Dr. BARNES; Dr. A. OGSTON.

BOOKS RECEIVED—

The British Journal of Dental Science—Medical Mirror—Glasgow Medical Journal—Faria's Address to Students—La Maladie dans le Plan de la Creation, par le Dr. Cotting—Pharmaceutical Journal—Edinburgh Medical Journal—Fletcher on Railways in their Medical Aspects—New York Medical Journal—Moore on Masked Malarious Fever.

PERIODICALS AND NEWSPAPERS RECEIVED—

Medical Press and Circular—Gazette des Hôpitaux—L'Union Médicale—Laboratory—Le Mouvement Médical—Gazette Hebdomadaire.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 31, 1867.

BIRTHS.

Births of Boys, 1034; Girls, 1051; Total, 2085.
Average of 10 corresponding weeks, 1857-66, 1761·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	671	617	1288
Average of the ten years 1857-66	594·6	583·5	1178·1
Average corrected to increased population ..	..	..	1269
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	5	3	1	4	5	38	3
North ..	618,210	7	2	9	..	2	11	58	5
Central	378,058	4	2	3	1	2	6	24	2
East ..	571,188	5	2	6	3	4	7	40	8
South ..	773,175	7	2	5	6	10	9	66	4
Total ..	2,803,989	24	13	26	11	22	38	226	22

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·894 in.
Mean temperature	61·7
Highest point of thermometer	77·6
Lowest point of thermometer	46·3
Mean dew-point temperature	55·8
General direction of wind	S.W.
Whole amount of rain in the week	0·20

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 31, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Aug. 31.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Aug. 31.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tens per Acre.
London (Metropolis)	3082372	39·5	2085	1421	1288	77·6	46·3	61·7	0·20	20
Bristol (City) . .	165572	35·3	96	74	164	76·0	48·4	60·6	0·55	56
Birmingham (Boro')	343948	43·9	248	167	209	73·5	47·1	57·4	0·10	10
Liverpool (Borough)	492439	99·4	340	285	287	72·6	50·1	62·1	0·40	40
Manchester (City) .	362823	89·9	264	205	†223	76·5	45·0	59·7	0·27	27
Salford (Borough) .	113613	22·9	121	58	63	71·9	43·7	59·1	0·29	29
Sheffield (Borough) .	225199	9·9	156	119	123	72·5	43·5	59·1	0·10	10
Leeds (Borough) .	232428	10·8	187	118	116	75·5	42·5	60·5	0·29	29
Hull (Borough) .	106740	30·0	70	49	51	77·0	44·0	61·4	0·21	21
Nwesti-on-Tyne, do.	124950	23·4	84	66	95	69·0	51·0	60·1	0·00	0
Edinburgh (City) .	176081	39·8	104	85	73	67·7	48·0	58·7	0·50	51
Glasgow (City) .	443979	87·1	305	257	185	68·7	47·4	58·5	1·78	180
Dublin (City and some suburbs) .	319210	32·8	164	‡157	126	73·7	44·6	60·5	1·13	114
Total of 13 large Towns . .	6187764	34·8	4224	3061	2903 Week ending Aug. 24.	77·6	42·5	60·2	0·45	45
Vienna (City) .	560000 (1863)	..	..	..	294	..	..	§73·6	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·894 in. The barometrical reading decreased from 30·4 in. on Wednesday, August 28, to 30·01 in. by 3 p.m on the same day; increased to 30·04 in. on Thursday, August 29, and decreased to 29·70 in. on Saturday, August 31.

The general dire ction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 63·7°.

APPOINTMENTS FOR THE WEEK.

September 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

9. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

11. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

13. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

CHOCOLAT-MENIER.

(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

The healthiest, best, and most delicious Aliment for Breakfast known since 1825; defies all honest competition, unadulterated, highly nutritious, and pure.

Sold in Half-pound Packets.

Wholesale, MENIER, 23, Henrietta-street, Strand, London.

Retail by all respectable Houses.

LIEBIG'S FOOD FOR INFANTS & INVALIDS.

Prepared strictly from the Formula of Baron Liebig, by

HOOPER,

OPERATIVE CHEMIST,

Sold in Tins, 1 lb., 1*s.*; 3 lb., 2*s.* 6*d.*; 6 lb., 5*s.*, by all Chemists and Druggists, and direct from Mr. HOOPER'S Establishments,

7, PALL MALL EAST, And 55, GROSVENOR STREET.

Wholesale of Barclay, Edwards, Newbery, all Patent Medicine Warehouses, and Wholesale Druggists.

INVALID TURTLE.

As the best restorative for strength, used and recommended by all Physicians in cases of WEAKNESS and PROSTRATION. Kept ready for use in Half-pints, Pints, and Quarts, by Mr. DONALD, St. James's Hall, Regent-street, W.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, PULLNA, FRIEDRICHSHALL, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

The Mineral Water of Geilnau (Nassau), an Acidulous and slightly Alkaline and Chalybeate Water, of very agreeable and refreshing taste, owing to its large proportion of carbonic acid; a valuable Dietetic Beverage in many morbid tendencies through its antacid, diuretic, and tonic qualities.

Specimen and analysis of the Water may be obtained from Messrs. BECKER and JUNG (Ems), the appointed Agents, 9, Rood-lane, Fenchurch-street, E.C., London, who supply also the other German Mineral Waters.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.

VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.

VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

The Syrup of the Superphosphate of Iron, Quinine, and Strychnine,

Has been pronounced by the highest Medical authority to possess tonic powers far exceeding all other preparations. It is always uniform in character, and has never been known to produce any unpleasant symptoms, due to its careful mode of preparation. This Syrup has been prescribed both at home and abroad for more than ten years. Its composition is as follows:—*Two grains of Iron, one grain of Quinine, and the thirty-second part of a grain of Strychnine to each fluid drachm.*

Prepared only by CURTIS & CO., Pharmaceutists, 48, Baker-street, London, W.

TOWLE'S CHLORODYNE.

In Bottles, 2 oz., 2*s.* 9*d.*; 4 oz., 4*s.* 6*d.*; 10 oz., 11*s.*, stoppered.

LIQ. CHLOROFORMI CO. (VEL) CHLORODYNE SINE OL. MENTH. PIP.

2 oz., 2*s.* 6*d.*; 4 oz., 4*s.* 4*d.*; 8 oz., 8*s.*, stopped.

The Medical Profession will find in the above Preparations all that can be desired. A good Chlorodyne of uniform strength, and miscible with water.

Proportions—Morph. Mur., half a grain, } In One Fluid
Tinct. Cannab. Ind., min. v., } Drachm.

PREPARED BY THE PROPRIETOR,

A. P. TOWLE, CHEMIST, MANCHESTER.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN ENGLAND.

SESSION 1867—68.

REGISTRATION OF MEDICAL STUDENTS.

THE following Regulations have been adopted by the General Medical Council, in reference to the registration of students of Medicine:—

1. Every Medical student shall be registered in the manner prescribed by the General Medical Council.

2. No Medical student shall be registered until he has passed a Preliminary Examination, as required by the General Medical Council.

3. The commencement of the course of Professional study recognised by any of the Qualifying Bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.

4. The registration of Medical students shall be placed under the charge of the Branch Registrars.

5. Every person desirous of being registered as a Medical student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to a form, which may be had on application to the several Qualifying Bodies, Medical Schools, and Hospitals; and shall produce or forward to the Branch Registrar a Certificate of his having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical Study.

6. Each of the Branch Registrars shall supply to the several Qualifying Bodies, Medical Schools, and Hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of Medical students.

7. The several Qualifying Bodies are recommended not to admit, after October, 1870, to the final Examination for a Qualification under the Medical Acts, any Candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least four years previously.

In the case of Candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

PRELIMINARY EXAMINATIONS IN ARTS RECOGNISED BY THE GENERAL MEDICAL COUNCIL.

1. A Degree in Arts of any University of the United Kingdom or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council.

2. Oxford Responsions or Moderations.

3. Cambridge Previous Examinations

4. Matriculation Examination of the University of London.

5. Oxford Middle Class Examinations (Senior).

6. Cambridge Middle Class Examinations (Senior).

7. Durham Middle Class Examinations (Senior).

8. Durham Examinations for Students in Arts in their second and first years.

9. Durham Registration Examination for Medical students.

10. Dublin University Entrance Examination.

11. Queen's University, Ireland, two years' Arts Course for the Diploma of Licentiate in Arts.

12. Preliminary Examinations at the end of A.B. Course.

13. Middle Class Examinations.

14. Matriculation Examinations.

15. First Class Certificate of the College of Preceptors.

16. "Testamur" granted by Codrington College, Barbadoes.

17. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the student has been examined in Latin and Mathematics.

18. Matriculation examination of McGill University, Montreal.

19. Resolved,—"That students who cannot produce any of the testimonials referred to in the first recommendation [as above] be required to pass an Examination in Arts, established by any of the Bodies named in Schedule (A) to the Medical Act, and approved by the General Medical Council."

Students who shall have commenced their Professional studies more than fifteen days before the 2nd October, 1865, are not required to be registered by any Branch Registrar.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

No one may be admitted a Student in Medicine until he has passed all the Examinations required for the degree of B.A.

1. Candidates for the degree of B.M. are required to pass two Examinations, each of which is held yearly in full Michaelmas Term, usually in November, the first by the Regius Professor of Medicine and three persons who have been admitted to Regency either as Masters of Arts or as Doctors, and who are nominated yearly by the Vice-Chancellor subject to the approval of Convocation, the second by the Regius Professor and two Doctors of Medicine nominated in like manner. Each Examination is conducted partly in writing, partly *viva voce*, and part of each is practical. The subjects of the first Examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the second Examination are the Theory and Practice of Medicine (including diseases of women and children), the Materia Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every Candidate at this second Examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus, or in one of those four, and in some modern author approved by the Regius Professor.(a)

Before a Candidate is admitted to the first of these two Examinations, he must have completed eight terms from the date of his *Testamur* in the Classical School at the Second Public Examination for the degree of B.A., unless he was placed in the First or Second Class in the School of Natural Science, in which case, if he received from the Public Examiners a special Certificate of his attainments in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this Examination at once, and need not then be examined again in any Science specified in such Certificate. Before a Candidate is admitted to the Second Examination, he must have completed sixteen Terms from the date of the same *Testamur* and two years from the date of his *Testamur* in the first Medical Examination, and must deliver to the Regius Professor satisfactory Certificates of his attendance at some Hospital of good repute. Every one intending to be a Candidate at either Examination is required to give the Professor notice of his intention a fortnight at least before the week in which the Examination is to be held.

No one from another University can be incorporated as a Graduate in Medicine without passing these two Examinations.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly within the precinct of the Schools, in the presence of the Regius Professor, a Dissertation composed by himself on some Medical subject approved by the Professor, and to deliver to him a copy of it.

UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.—Before a Student can become a Bachelor of Medicine he must have resided nine terms (three academical years).

Five years of Medical Study are required, of which time six terms (two academical years) shall be spent in the University after the Student has passed the Previous Examination. In the case of those who have graduated with Honours as Bachelor of Arts, four years of Medical Study are deemed sufficient, four terms only being spent in Medical Study in the University after passing the previous Examination.

The Previous Examination may be passed in the Lent term (at the latter end of March) by those who declare themselves as Medical Students, and are at least in their second term of residence—*i.e.*, have commenced residence in the University in the previous October. In addition to passing the previous Examination, the Student is required to pass an Examination in Algebra, in his second term of residence, or in any subsequent term.

There are three Examinations.(b)

The First Examination is in—1. Mechanics and Hydrostatics; 2. Chemistry, with Heat and Electricity; 3. Botany;

(a) Such modern authors are Morgagni, Sydenham, Boerhaave.

(b) The Regulations for the First and Second Examinations came into force in Michaelmas Term, 1866. The Regulations for the last Examination, in Michaelmas Term, 1867. For the Regulations in force for the last Examination during the present year, see *Medical Times and Gazette*, September 16, 1865.

and before presenting himself for it the Student must have passed the Previous Examination, as well as the Examination in Algebra, and have attended Lectures on Chemistry, including manipulations, and Botany.

The Second Examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacology; and previously to it the Student must have passed the First Examination and have completed two years of Medical study, the time of Medical Study required to be spent in the University being included in these two years. He must also produce Certificates of attendance on Lectures on the Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, and Pathology; one year's Hospital Practice and one season's Dissections.

Exemptions.—Students who have obtained honours in the Natural Sciences Tripos, and have passed with credit the Examination in Chemistry, Botany, or Comparative Anatomy, are not required to be again examined in them. Students who have obtained honours in any Tripos or have passed the general B.A. Examination, shall not be examined in Mechanics and Hydrostatics, and students who have passed the special Examination in Botany for the B.A. degree shall not be again examined in that subject.

The Third Examination is in—1. Pathology and Practice of Physic (two papers); 2. Clinical Medicine in the wards of the Hospital; 3. Medical Jurisprudence. Previous to this the Candidate must have passed the Second Examination, and have completed the Course of Medical Study. He must produce Certificates of attendance on one Course of Lectures on each of the following subjects:—Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery; and of having attended Hospital Practice during three years.

The Examinations are partly in writing, partly *viva voce*, and take place twice annually—in the Michaelmas term, and in the Easter term—an interval of two days being allowed to intervene between the First and Second Examinations.

After the third Examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* Examination on the subject of the thesis, as well as on other subjects of the Faculty.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept with *viva voce* Examination. A Master of Arts of four years' standing can proceed to M.D., but is required to produce the same certificates and pass the same Examinations as for M.B.

Degree of Master in Surgery.—Previous to the Examination for this Degree, the Candidate must have passed all the Examinations for the Degree of M.B., and must produce certificates of having attended a second course of lectures on Human Anatomy, one course of lectures on the Principles and Practice of Surgery, one year's Clinical Surgical Lectures, ten cases of Midwifery, a second season of Dissections, three years the Surgical Practice of a recognised Hospital, and of having been House-Surgeon or Dresser at such Hospital for six months. The subjects of the Examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery; and 4. Midwifery.

Attendance at the Hospital and Lectures in Cambridge is recognised by the Universities of Cambridge and London, and (for one year) by the College of Surgeons and the Society of Apotheearies.

UNIVERSITY OF LONDON.

BURLINGTON HOUSE, W.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine are required—

1. To have passed the Matriculation Examination of their University, or to have taken a Degree in Arts in one of the Universities of the United Kingdom.

2. To have been engaged in their Professional studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University; one year at least of the four to have been spent in one or more of the recognised Institutions or Schools in the United Kingdom.

3. To pass the Preliminary Scientific Examination,(a) and two Examinations in Medicine.

(a) Candidates who matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

PRELIMINARY SCIENTIFIC EXAMINATION.

The Preliminary Scientific Examination takes place once in each year, and commences on the third Monday in July.

No candidate is admitted to this Examination until he has completed his seventeenth year, and has either passed the Matriculation Examination or taken a Degree in Arts in one of the Universities of the United Kingdom; nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the Examination.

The fee for this Examination is Five Pounds.

Candidates are examined in the following subjects:(b)—Mechanical and Natural Philosophy; Inorganic Chemistry; Botany and Vegetable Physiology; Zoology and Comparative Anatomy.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the Preliminary Scientific Examination may be examined for Honours in (1) Chemistry and Natural Philosophy, (2) Biology. If, in the opinion of the Examiners, any Candidate of not more than twenty-two years of age who has passed either the Preliminary Scientific M.B. Examination or the First B.Sc. Examination possesses sufficient merit, the Candidate who distinguishes himself the most of all the Candidates who have passed either of the said Examinations, and who are not more than twenty-two years of age, in Chemistry and Natural Philosophy, and the Candidate who distinguishes himself the most of all the Candidates who have passed either of said examinations, and who are not more than twenty-two years of age, in Biology, shall each receive an Exhibition of Forty Pounds per annum for the next Two Years, payable in quarterly instalments (it being intended that one Exhibition only shall be given in each case among all the Candidates, although some of such Candidates may have passed the Preliminary Scientific M.B. Examination, and others the First B.Sc. Examination); provided that on receiving each instalment he declares his intention of presenting himself at the first M.B. Examination within three years from the time of his passing the Preliminary Scientific Examination, or at the second B.Sc. Examination within two years from the time of his passing the First B.Sc. Examination, as the case may be.

FIRST M.B. EXAMINATION.

The First M.B. Examination takes place once in each year, and commences on the last Monday in July. No Candidate is admitted to this examination unless he have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having passed the Preliminary Scientific Examination at least one year previously. (c) 3. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University, and of having attended a Course of Lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Midwifery and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, dissected during two Winter Sessions. 5. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, attended a Course of Practical Chemistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, etc. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the Preparation of Medicines.

These Certificates must be transmitted to the Registrar at least fourteen days before the commencement of the Examination.

The fee for this Examination is Five Pounds.

Candidates are examined in the following subjects:—

(b) Candidates who pass in all the subjects of the Preliminary Scientific Examination, and also in the Mathematics of the First B.Sc. Examination, are considered as having passed both the Preliminary Scientific Examination and also the First Bachelor of Science Examination, without the payment of any additional fee.

(c) See note (a).

Anatomy, Physiology, (d) Materia Medica and Pharmaceutical Chemistry and Organic Chemistry.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the First M.B. Examination may be examined for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry.

The Candidates who distinguish themselves most in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, (3) Materia Medica, and Pharmaceutical Chemistry and Organic Chemistry, respectively, each receive an Exhibition of forty pounds per annum for the next two years; provided that on receiving each instalment he declares his intention of presenting himself at the Second M.B. Examination within three years from the time of his passing the First M.B. Examination.

Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

SECOND M.B. EXAMINATION.(e)

The Second M.B. Examination takes place once in each year, and commences on the first Monday in November.

No Candidate is admitted to this Examination within two academical years of the time of his passing the First Examination, nor unless he have produced Certificates to the following effect:—

1. Of having passed the First M.B. Examination.

2. Of having, subsequently to having passed the First M.B. Examination, attended a Course of Lectures on each of two of the subjects comprehended in the foregoing list, and for which the Candidate had not presented Certificates at the First M.B. Examination.

3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally qualified Practitioner in Medicine.

4. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery.

5. Of having attended the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Medicine. N.B.—The Student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5 may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with Clinical Instruction, may be substituted for a like period of attendance on Medical Hospital Practice.

6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine, Surgery, or Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months.

The Candidate must also produce a Certificate of Moral Character from a teacher in the last School or Institution at which he has studied, as far as the Teacher's opportunity of knowledge has extended.

These Certificates must be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The fee for this examination is £5.

Candidates are examined in the following subjects:—General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine; Midwifery; Forensic Medicine.

Such Candidates only as are placed in the First Division are admissible to the Examination for Honours.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

(d) Any Candidate is allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for Examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such Candidate is not admitted to compete for Honours on either occasion; and is not admitted as a Candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his Examination in Physiology.

(e) Any Candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former Regulations will be required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present Regulations; at which Examination he is not allowed to compete for Honours.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the Second M.B. Examination may be examined for Honours in (1) Medicine, (2) Midwifery, and (3) Forensic Medicine. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine. Under the same circumstances the Candidate who distinguishes himself the most in Midwifery shall receive £30 per annum for the next two years, with the style of University Scholar in Midwifery. Under the same circumstances, the Candidate who distinguishes himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine. Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

BACHELOR OF SURGERY.

The examination for the Degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the fourth Monday in November.

No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended a Course of Instruction in Operative Surgery, and of having operated on the dead subject.

These Certificates must be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The Fee for this Examination is £5.

The Examinations comprise—Surgical Anatomy and Surgical Operations, by printed papers; Examination and Report of Cases of Surgical Patients; Performance of Surgical Operations upon the Dead Subject; Application of Surgical Apparatus; *viva voce* Interrogation.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the B.S. Examination may be examined for Honours in Surgery. The Examination is conducted by means of printed papers.

The Candidate who distinguishes himself the most receives £50 per annum for the next two years, with the style of University Scholar in Surgery.

Under the same circumstances, the first and second Candidates each receive a gold medal of the value of £5.

MASTER IN SURGERY.

The Examination for the Degree of Master in Surgery takes place once in each year, and commences on the fourth Monday in November.

No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Surgery(f) in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Surgery in this University—*a*. To Clinical or Practical Surgery during two years in a Hospital or Medical Institution recognised by this University; *b*. Or to Clinical or Practical Surgery during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession; *c*. Or of having been engaged during five years in the practice of his Profession, either before or after taking the degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those Candidates who at the B.S. Examination have been placed in the First Division. 3. Of Moral Character, signed by two persons of respectability.

These Certificates must be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for the Degree of Master in Surgery is £5.

The Examination shall be conducted by means of printed papers and *viva voce* interrogation.

Candidates are examined in the following subjects:—Surgery. Logic and Moral Philosophy: Names, Notions, and Propositions; Syllogisms; Induction and subsidiary operations; the Senses; the Intellect; the Will, including the Theory of Moral Obligation. (Candidates who have taken the Degree of Doctor of Medicine in this University, or

(f) Candidates who have obtained the Degree of Bachelor of Medicine previously to 1866 will be admitted to the Examination for the Degree of Master in Surgery without having taken the Degree of Bachelor of Surgery; and in the case of such Candidates, the attendance on Surgical Practice required by Regulation 2 may commence from the date of the M.B. Degree

a Degree in Arts or in Science either in this University or in a University the Degrees granted by which are recognised by the Senate of this University, shall be exempted from this part of the Examination.(g))

The Candidate who distinguishes himself most at the Examination for the Degree of Master in Surgery receives a gold medal of the value of £20.

DOCTOR OF MEDICINE.

The Examination for the Degree of Doctor of Medicine takes place once in each year, and commences on the fourth Monday in November. No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Medicine in this University—*a*. To Clinical or Practical Medicine during two years in a Hospital or Medical Institution recognised by this University; *b*. Or, to Clinical or Practical Medicine during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession; *c*. Or, of having been engaged during five years in the practice of his Profession, either before or after taking the Degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine, or two years of Practice, will be dispensed with in the case of those Candidates who at the Second Examination have been placed in the First Division. 3. Of moral character, signed by two persons of respectability.

These Certificates must be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for the Degree of Doctor of Medicine is £5.

Candidates are examined in the following subjects:—1. Logic and Moral Philosophy. (Candidates who have taken a Degree in Arts or in Science in this University, or in a University the Degrees granted by which are recognised by the Senate of this University, are exempted from this part of the Examination.) 2. Medicine (including Examination and Report on Cases, etc.). 3. A commentary on a case of Medicine or Midwifery, at the option of the Candidate.

The Candidate who distinguishes himself the most at the Examination for the Degree of Doctor of Medicine shall receive a gold medal of the value of £20.

REGULATIONS RELATING TO CANDIDATES WHO COMMENCED THEIR MEDICAL STUDIES IN OR BEFORE JANUARY, 1839.

Bachelor of Medicine.—Candidates who commenced their Professional Studies in or before January, 1839, shall be required to pass the Preliminary Scientific Examination in Chemistry and Botany only, and shall be admitted to the First Examination for this Degree on producing certificates to the following effect:—1. Of having been engaged during two years in their Professional Studies. 2. Of having attended a Course of Lectures on each of four of the subjects comprehended in the list, § 3, First M.B. Ex. 3. Of having Dissected during nine months. 4. Of having attended to Practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the preparation of Medicines.

Candidates who commenced their Professional Studies in or before January, 1839, shall be admitted to the Second Examination for the Degree of Bachelor of Medicine on producing Certificates to the following effect:—1. Of having been engaged during four years in their Professional Studies. 2. Of having passed the First M.B. Examination. 3. Of having attended a Course of Lectures on each of two of the subjects comprehended in the list, § 3, First M.B. Ex. 4. Of having Dissected during twelve months. 5. Of having attended to Practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the preparation of Medicines. 6. Of having conducted at least six labours. 7. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during twelve months. 8. Of having attended the Medical Practice of a recognised Hospital or Hospitals during other twelve months. 9. Of Moral Character from a Teacher in the last School or Institution at which they have studied, as far as the Teacher's opportunity of knowledge has extended. Candidates who have not taken a Degree in Arts or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

REGULATIONS RELATING TO PRACTITIONERS IN MEDICINE OR SURGERY DESIROUS OF OBTAINING DEGREES IN MEDICINE.

Bachelor of Medicine.—Candidates shall be admitted to the two Examinations for this Degree on producing certificates to the following effect:—1. Of having been admitted prior to the year 1840 members of one of the legally constituted bodies in the United Kingdom for licensing Practitioners in Medicine or Surgery; or, of having served previously to 1840 as Surgeons or Assistant-Surgeons in her Majesty's Army, Ordnance, or Navy, or in the service of the Honourable the East India Company. 2. Of having received a part of their education at a recognised Institution or School, as required by the Charter of the University. 3. Of moral character, signed by two persons of respectability.

Candidates who have not taken a Degree in Arts or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

Doctor of Medicine.—Candidates who have been engaged during five years in the practice of their Profession shall be admitted to the Examination for this Degree on producing certificates to the following effect:—1. Of having been engaged during five years in the practice of their Profession. 2. Of having taken the Degree of Bachelor of Medicine in this University.

Candidates who have not taken a Degree in Arts or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

(g) The Degrees in Arts of all Universities in the United Kingdom are recognised by the Senate for this purpose.

UNIVERSITY OF DURHAM.

REGULATIONS RELATING TO MEDICAL STUDENTS.

1. No one shall be held to be a Student in Medicine who has not been registered in a register kept for that purpose. No one shall be so registered unless he has passed the Registration Examination or such other examination as the Warden and Senate shall deem equivalent. The Registration Examination shall be directed to the Rudiments of Religion, Literature, and Science; and shall be conducted by two or more Examiners nominated by the Warden.

2. No Grace for a Licence in Medicine shall be granted, unless the petitioner is of the age of 21 years, has spent four years in Medical study since his registration at one or more of the schools recognised by the licensing bodies named in Schedule A of the Medical Act, 1858. No Grace for a Licence in Medicine shall be granted unless the petitioner has passed two public examinations. No one shall be admissible to the first of these examinations unless he has spent two years at least in Medical study as above prescribed. No one shall be admissible to the second of these examinations unless he has spent four years at least in Medical study as above prescribed, and has passed the first examination. No one shall be admissible to either of these examinations unless he has produced satisfactory testimonials of conduct, and such certificates of attendance on Lectures and Hospital Practice as the Warden and Senate shall require. Each of these examinations shall be conducted by three or more Examiners, nominated by the Warden and approved by Convocation, and shall be directed to such subjects of Medical science and practice as shall have been fixed on by the Warden and Senate.

3. No Grace for the Degree of Bachelor in Medicine shall be granted unless the petitioner is a Licentiate in Medicine, and is of the standing of eighteen terms (six years) at least from the date of his registration or matriculation. No one who is not a Bachelor of Arts shall be admissible to the Degree of Bachelor of Medicine unless he has kept three terms by residence at Durham, and has passed both the final examination for the Degree of Bachelor of Arts, or an equivalent to it and also the examination for the Degree of Bachelor of Medicine. The examination for the Degree of Bachelor of Medicine shall be directed chiefly to the practice of Medicine. The details shall be arranged by the Warden and Senate. The Warden and Senate shall have authority to arrange for Medical Students an examination equivalent to that for the Degree of Bachelor of Arts, by substituting for the theological part of it an examination in Hippocrates, Galen, or such other ancient Medical author or authors as they may think fit.

4. No Grace for the Degree of Doctor of Medicine shall be granted unless the petitioner is a Bachelor of Medicine of twenty-one terms at least (seven years) standing from his registration or matriculation, or unless he has performed such exercises as the Warden and Senate require.

5. No Grace for the Degree of Master in Surgery shall be granted unless the petitioner is of the age of 21 years, and has spent four years in Medical and Surgical study since his registration as a student in Medicine, in some one or more of

the schools recognised by the Licensing Bodies named in Schedule A of the Medical Act, 1858. No Grace for the Degree of Master in Surgery shall be granted unless the petitioner has passed two public examinations. The first of these examinations shall be the first examination appointed for students in Medicine. No one shall be admissible to it who has not spent two years in Medical and Surgical study, as above prescribed. The second of these examinations shall be partly the same as that appointed for students in Medicine, and shall be partly in Surgical subjects. No one shall be admissible to it who has not spent four years at least in Medical and Surgical study as above prescribed, and passed the first examination. No one shall be admissible to either of these examinations unless he has produced satisfactory testimonials of conduct, and such certificates of attendance on Lectures and Hospital Practice as the Warden and Senate shall require. Each of these examinations shall be conducted by three or more Examiners nominated by the Warden, and approved by Convocation, and shall be directed to such subjects as shall have been fixed on by the Warden and Senate. The second examination for the Degree of Master in Surgery may or may not be passed at the same time with the second examination for a Licence in Medicine. Any student in Medicine who commenced his studies before the year 1861 shall be entitled to be admitted to the Degree of Master in Surgery on the same conditions as those which are required for a Licence in Medicine, provided that he passes also the special examination appointed for the Degree of Master in Surgery.

Order of Senate relating to the Registration of students in Medicine:—

1. The name of every student in Medicine shall be placed on a Register kept by the Registrar of the University of Durham.

2. No one shall be registered unless he has produced to the Warden the requisite certificates of examination and character.

The requisite Certificate of Examination shall be a Certificate of his having passed either the Registration Examination appointed by the University of Durham, or any one of the examinations named in the Minutes of the Medical Council for England.

The last Registration Examination for 1867 commences on September 17. The Registration Examinations for 1868 commence on April 21 and September 22. The subjects are:—Sacred and English History, English Grammar, Arithmetic, Algebra, Euclid, Geography, Latin, Greek, French, German, Elementary Mechanics (the last four at the option of the candidate).

The Examination Fee, £1, with a testimonial of character, is to be sent to A. Beanlands, Esq., Durham, one month before the Examination.

One of the University Medical Scholarships, value £25 per annum, tenable for four years, will be filled up after an Examination commencing on Tuesday, October 8, 1867.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

The By-laws and Regulations for the Admission of Members are now under revision, and, it is understood, will be materially altered. They will not, however, be published until October.

LICENTIATES.

The College will, under its Charter, grant Licences (which are not to extend to make the Licentiates Members of the Corporation) to persons who shall conform to the following By-laws:—

Every Candidate for the College Licence (except when otherwise provided by the By-laws) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of 21 years. 2. Of moral character. 3. Of having passed, before the commencement of Professional study, an Examination in the subjects of General Education recognised by the College. 4. Of having been registered as a Medical Student in the manner prescribed by the General Medical Council. 5. Of having been engaged in Professional studies during four years, of which at least three Winter Sessions and two Summer Sessions shall have been passed at a recognised Medical School or Schools, and one Winter Session and two Summer Sessions in one or other of the following ways:—(1) Attending the Practice of a Hospital or other Institution recognised by the College for that purpose. (2) Receiving instruction as the pupil of a legally qualified Practitioner, holding any public appointment which affords opportunities, satisfactory to the Examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery. (3) Attending Lectures on any of the required subjects of Professional study at a recognised place of instruction. Professional studies commenced *before* the Candidate shall have passed an Examination in the subjects of General Education will not be recognised by the College. 6. *Of having attended, during three Winter Sessions and Two Summer Sessions, the Medical and Surgical Practice at a recognised Hospital or Hospitals*; and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. 7. Of having studied the following subjects:—Anatomy (with Dissections) during two Winter Sessions;(a) Physiology during two Winter Sessions; Chemistry during Six Months; Practical Chemistry during Three Months; Materia Medica during Three Months; Practical Pharmacy during Three Months. By Practical Pharmacy is meant instruction in the Laboratory of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain, or of a Public Hospital or Dispensary recognised by the College. Botany during Three Months. This Course of Lectures may be attended prior to the commencement of Professional studies, and any Candidate producing satisfactory evidence that Botany formed one of the subjects of his Preliminary Examination, will be exempt from attendance on this Course. Morbid Anatomy during Six Months. This includes attendance and instruction in the Post-mortem Room during the period of Clinical study. Principles and Practice of Medicine during two Winter Sessions. It is required that the Principles of Public Health should be comprised in this Course of Lectures, or in the Course of Lectures on Forensic Medicine. The attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School. Principles and Practice of Surgery during *two Winter Sessions*. The attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School. Clinical Medicine during *two Winter Sessions and two Summer Sessions*.(a) The attendance on these Lectures must not commence until after the first Winter Session at a recognised Medical School. Clinical Surgery during *two Winter Sessions and two Summer Sessions*. The attendance on these Lectures must not commence until after first Winter Session at a recognised Medical School. By Clinical Medicine and Clinical Surgery are meant special Study and Instruction at the Bedside, with Lectures on Cases. Midwifery and the Diseases peculiar to Women during Three Months. Certificates must also be produced of attendance on not less than Twenty Labours, and of Instruction and Proficiency in Vaccination. Forensic Medicine during Three Months. 8. Of having passed the Professional Examinations. (The requirements printed in italics apply to Candidates who commenced their Professional Education in the United Kingdom on or after October 1, 1867, and to Candidates who commenced their Professional Education at a recognised Foreign or Colonial School on or after October 1, 1868.)

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

The fee to be paid for the Licence to practise Physic as a Licentiate of the College shall be fifteen guineas.

BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE LICENCE.

Every Candidate for the College Licence, before he is admitted to examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—First day: Evening, from 7 to 10, by written questions. Second day: Evening, commencing at 7 o'clock, *viva voce*, on Dissections and Preparations. The Second or Pass Examination will be conducted on successive days, as follows:—First day: Evening, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Second day: Morning, when the Candidate's practical knowledge will be tested, either at the College, or in the Surgical Wards of an Hospital. Afternoon, from 1 to 4, on Materia Medica and on Chemistry, in its applications to Pathology, Pharmacy, and

(a) The Winter Session comprises a period of six months, and the Summer Session a period of three months.

Toxicology.(b) This Examination will be conducted partly by written questions and partly in a practical manner. Evening, commencing at 7 o'clock, by written questions on Midwifery and the Diseases peculiar to Women. Third day: Evening, from 7 to 10, by written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. Fourth day: Morning, when the Candidate's Practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. Evening, commencing at 7 o'clock, *viva voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second or Pass Examination until after the termination of four years of Professional Study.

After October, 1870, the College will not admit to the Pass Examination any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.

Any Candidate who shall be rejected at the First Examination will not be readmitted to Examination until after the lapse of three months, and will be required to produce a Certificate of the performance of Dissections, or other Professional Study satisfactory to the Examiners, during that time.

Any Candidate who shall be rejected at the Second or Pass Examination will not be readmitted to Examination until after the lapse of six months, and will be required to produce a Certificate of Attendance on the Practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures.

Every Candidate intending to present himself for Examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following Certificates:—For the First Examination: Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the Second Winter Session of Professional Study at a recognised Medical School. For the Second or Pass Examination: Evidence of having completed four years of Professional Study; of having attained the age of 21 years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every Candidate.

Blank Forms of the required Certificates of attendance on Hospital Practice and on Lectures may be obtained on application at the College.(c)

Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an Examination satisfactory to the College, will be exempt from re-examination on the subjects of the First Examination.

Any Candidate who shall have obtained a Degree in Surgery at a University in the United Kingdom, after a course of study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery.

Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a course of study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery.

Any "Registered Medical Practitioner," whose Qualification or Qualifications shall have been obtained before the 1st day of January, 1861, having been, with the consent of the College, admitted a Candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his Qualifications may seem to the Examiners to render in his case unnecessary.(d)

The Fee for the College Licence is fifteen guineas,(e) of which five guineas are to be paid on admission to the First Examination, which Fee will not be returned to any Candidate rejected at this Examination, but will be allowed in the Fee for the Licence, and he will be admitted to one subsequent First Examination without the payment of an additional Fee.

Any Candidate who shall be rejected at the Second or Pass Examination will have the Fee paid on admission to this Examination returned to him, less three guineas.

(b) Candidates who shall have passed the First Examination for the Licence at this College before October 1, 1867, are exempted from re-examination on Materia Medica, and on Chemistry and its application to Pharmacy.

Examinations of Candidates for the College Licence will take place, commencing as follows:—

1867.

First Examination.			Second or Pass Examination.		
Tuesday	.. ..	October 1	Tuesday	.. ..	October 8
Tuesday	.. ..	December 3	Tuesday	.. ..	December 10
1868.					
Tuesday	.. ..	February 4	Tuesday	.. ..	February 11
Tuesday	.. ..	April 1	Tuesday	.. ..	April 8
Tuesday	.. ..	July 1	Tuesday	.. ..	July 8
Tuesday	.. ..	October 7	Tuesday	.. ..	October 14
Tuesday	.. ..	December 2	Tuesday	.. ..	December 9

(c) Hours of attendance, from 11 a.m. to 4 p.m.; Saturday, from 11 a.m. to 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RELATING TO THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF FELLOW.

Preliminary Examination.—Candidates will be required to produce one or other of the following Certificates or Testamurs, viz.:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz:—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews; Calcutta, Madras, and Bombay; Canada—McGill's College, Montreal, and Queen's College, Kingston. A Certificate or Testamur of Graduation in Arts at a Foreign University, on the special recommendation of the Court of Examiners, approved by the Council. 2. Of having passed such Examinations in Arts as shall from time to time be required for graduation in Medicine by a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, Durham. 3. Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of the College.

The following are the subjects of the Examination (No. 3) during the year 1867, viz.: Part I.—Compulsory Subjects.—1. Reading aloud a passage from some English author:—2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition; such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the Sovereigns, and the leading events of each reign. 8. Euclid, Book I. 9. Translation of a passage from the second book of Cæsar's Commentaries "De Bello Gallico." 10. Translation of a passage from the first book of the Anabasis of Xenophon. 11. Translation of a passage from Voltaire's "Histoire de Charles XII." 12. Mathematics. Algebra to Simple Equations inclusive. Part II.—Papers will also be set on the following four subjects; and each Candidate will be required to offer himself for examination on one subject, at his option, viz:—1. Translation of a passage from the first two books of Schiller's "Geschichte des dreissigjahrigen Krieges." Besides these Translations into English, the Candidate will be required to answer questions on the Grammar of each subject, whether compulsory or selected. 2. Mechanics. The questions will be chiefly of an elementary character. 3. Chemistry. The questions will be on the elementary facts of Chemistry. 4. Botany and Zoology. The questions will be on the classification of Plants and Animals. The quality of the handwriting and spelling will be taken into account.

N.B.—Each Candidate, prior to his admission to the above Examination, is required to pay the Fee of £2. The Examination is at present held in June and in December.

NOTE.—*Candidates who have passed an Examination recognised as equivalent to the Preliminary Examination for the*

(d) Forms of application may be obtained of the Registrar of the College.

(e) The Fee must be paid within three days prior to the day on which the Examination commences

Diploma of Member will be required, in order to qualify for the Fellowship, to pass in the subjects numbered 10, 11, *and* 12 *in Part I., and in one, at their option, of the four subjects included in Part II. of the foregoing examination* (No. 3).

P.S.—In the subjects for the above examination during the year 1868, X. B. Saintine's "Picciola" and Schiller's "Wilhelm Tell" will be substituted respectively for Voltaire's "Histoire de Charles XII" and Schiller's "Geschichte des dreissigjährigen Krieges."

Professional Education.—I. Except in the cases and instances hereinafter provided for to the contrary, every Candidate for admission to the First or Anatomical and Physiological Examination for the Fellowship is required to produce the following Certificates, viz. :—1. Of having passed the Preliminary Examination appointed by the Council, or such other Examination as the Council may from time to time determine to be equivalent thereto. 2. Of having studied Practical Pharmacy during three months. 3. Of having studied Anatomy and Physiology by attendance on Lectures and Demonstrations, and by dissections during three winter sessions of not less than six months each, at a recognised School or Schools. 4. Of having attended one course of lectures on Comparative Anatomy, one course of lectures on Chemistry, and a three months' course of Practical Chemistry at a recognised School or Schools.

II. Except in the cases and instances hereinafter provided for to the contrary, every Candidate, before his admission to the second Professional Examination, is required to produce the following certificates, viz. :—1. Of being 25 years of age. 2. Of having been engaged for six years in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose; or, if the Candidate be already a Member of the College, he shall produce certificates of having been engaged for two years in the acquirement of Professional knowledge in recognised Hospitals and Schools, in addition to the certificates required for the Diploma of Member. 3. Of having attended Lectures on the Theory and Practice of Surgery, during two sessions of not less than six months each, at one or more recognised School or Schools. 4. Of having attended one course of Lectures on each of the following subjects—viz., Theory and Practice of Medicine, Materia Medica, Midwifery, with attendance on cases, and Medical Jurisprudence, at one or more recognised School or Schools. 5. Of having attended a course of Lectures on the Operations of Surgery by a recognised Lecturer. 6. Of having performed operations on the dead body under the superintendence of a recognised teacher. 7. Of instruction and proficiency in the practice of Vaccination. 8. Of having attended the Surgical Practice, with Clinical Lectures on Surgery, of a recognised Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical Practice with Clinical Lectures on Medicine of a recognised Hospital or Hospitals during one Winter and one Summer Session. 9. Of having, subsequently to the completion of two years' Professional study, served the office of House-Surgeon or Dresser, for not less than six months, in a recognised Hospital in the United Kingdom.

III. In the case of a Candidate who shall have taken by Examination the Degree of Bachelor or Master of Arts in any University in the United Kingdom recognised by the Council for this purpose, it shall be sufficient for him to produce a certificate or certificates that he has been engaged for five years (instead of six years) in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose.

IV. Any Member of the College shall, after the expiration of eight years from the date of his Diploma, be entitled to be admitted to the Professional Examination for the Fellowship upon the production of a certificate, signed by three Fellows, that he has been for eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if, upon examination, he shall be found qualified.

Professional Examinations.—1. The Examinations are held twice in the year, in the months of May and November, and at such other times as the Council may appoint. 2. The Examinations occupy not less than two days, either successive or at such intervals as the Court of Examiners may appoint. 3. The First Examination, on Anatomy and Physiology, is partly written and partly *viva voce*, on the recently dissected subject, and on prepared parts of the human body; the Second Examination, on Pathology, Therapeutics, and Surgery, is partly written, partly *viva voce*, and partly on the practical use of Surgical apparatus, and includes the examination of patients, and operations on the dead body. 4. Prior to his admission to the First or Anatomical and Physiological Examination, the Candidate is required to pay—*a*. A fee of five guineas, to be allowed on the fee for the Diploma of Fellow, but to be retained in case of rejection. 5. Prior to his admission to the Second Professional Examination, the Candidate is required to pay—*a*(a) A fee of five guineas (if a Member) over and above all charges for stamps, to be retained in case of rejection. *b*(a) A fee of twenty-five guineas (if not a Member) over and above all charges for stamps, of which five guineas will be retained in case of rejection. 6. A Candidate whose qualifications shall be found insufficient on his Anatomical and Physiological Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of six months from the date of his reference. 7. A Candidate whose qualifications shall be found insufficient upon his Pathological and Surgical Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of one year from the date of his reference, unless the Court of Examiners shall otherwise determine.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THIS COLLEGE.

I. *Preliminary General Education and Examination.*—Candidates who commenced their Professional education on or after January 1, 1861, will be required to produce one or other of the following Certificates :—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised—viz. : Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews, Calcutta, Madras, and Bombay. Canada : McGill College, Montreal; and Queen's College, Kingston. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause (No. 2), viz. :—Oxford : Responsions or Moderations; Middle-Class Examinations, Senior. Cambridge : Previous Examination; Middle-Class Examinations, Senior. Dublin : Entrance Examination. London : Matriculation Examination. Durham : Examination of students in Arts in the second and first years; Middle-Class Examinations, Senior; Registration Examination for Medical Students. Queen's University in Ireland : Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Middle-Class Examinations; Matriculation Examinations. Queen's College, Belfast : Preliminary Examination for non-Matriculated Students. Edinburgh : Extra Professional Examination for Graduation in Medicine. Aberdeen, Glasgow, and St. Andrews : Preliminary or Extra Professional Examinations for Graduation in Medicine. Calcutta, Madras, and Bombay : Matriculation Examinations. McGill's College, Montreal : Preliminary Examination in General Literature. Queen's College, Kingston, Canada : Matriculation Examination; Preliminary Examination of Students in Medicine. University College, Toronto, Canada : Matriculation Examination. Victoria College, Toronto, Canada : Matriculation Examination. University of Melbourne : Matriculation Examination, with a Certificate that the Student has passed an Examination in Latin. 3. Of having passed the Preliminary Examination for the Fellowship of this College. 4. Of having passed the Preliminary Examination of the Royal College of Surgeons in Ireland. 5. Of having passed the Preliminary Examination of the Royal College of Surgeons of Edinburgh. 6. Of having passed the Preliminary Examination of the Faculty of Physicians and Surgeons of Glasgow. 7. Of having passed the Examination in Arts of the Society of Apothecaries of London. 8. Of having passed the Examination in Arts of the Apothecaries' Hall of Ireland. 9. Of having passed the First-class Examination of the Royal College of Preceptors. 10. Testamur of the Codrington College, Barbadoes. 11. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the Student has been examined in Latin and

(a) The sum of £2 paid on the Preliminary Examination will be allowed against these amounts.

Mathematics. 12. Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.

The following are the subjects of the Examination (No. 12) during the present year—viz., Part I.—Compulsory: The subjects marked 1 to 9 inclusive in the Preliminary Examination for the Fellowship Part I. Part II.—Papers will also be set on the following seven subjects; and each Candidate will be required to offer himself for Examination on one subject at least, at the option of the Candidate; but no Candidate will be allowed to offer himself for Examination on more than four subjects:—1. Translation of a passage from the first Book of the Anabasis of Xenophon. 2. Translation of a passage from Voltaire's "Histoire de Charles XII." 3. Translation of a passage from the first two books of Schiller's "Geschichte des dreissigjährigen Krieges." Besides these translations into English, the Candidate will be required to answer questions on the Grammar of each subject, whether compulsory or selected. 4. Mathematics; Algebra to Simple Equations inclusive. 5. Mechanics; the questions will be chiefly of an elementary character. 6. Chemistry; the questions will be on the elementary facts of chemistry. 7. Botany and Zoology; the questions will be on the classification of plants and animals. The quality of the handwriting and the spelling will be taken into account.

N.B.—Each Candidate, prior to his admission to the above Examination, is required to pay the Fee of £2. The Examition is at present held in June and December.

NOTE.—A Candidate, in order to qualify for the Fellowship, is required to pass in the subjects numbered 1, 2, and 4, and in one, at his option, of the subjects numbered 3, 5, 6, and 7, Part II., in addition to the compulsory subjects contained in Part I.

In the subjects for the above Examination during the year 1868, *X. B. Saintine's "Picciola" and Schiller's "Wilhelm Tell" will be substituted respectively for Voltaire's "Histoire de Charles XII," and Schiller's "Geschichte des dreissigjährigen Krieges."*

II. *Professional Education.*—1. Professional Studies prior to the date at which the Candidate shall have passed an Examination in General Knowledge in conformity with the Regulations in the preceding Section are not recognised.(b)

II. The following will be considered as the commencement of Professional Education:—1. Attendance on the Practice of a Hospital or other Public Institution recognised by this College for that purpose. 2. Instruction as the Pupil of a legally qualified Surgeon, *holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.* 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by Lecturers recognised by this College. *The commencement of Professional Study otherwise than by attendance on Lectures in recognised Medical Schools, or by attendance on the Practice of recognised Hospitals, will not be admitted until a Certificate thereof shall be furnished to the Secretary for registration at the College, by the Practitioner whose Pupil the Candidate shall have become, or by the Medical Superintendent of the Hospital or other Institution to the practice of which he shall have entered, and will, consequently, date only from the reception of such Certificate by the Secretary; the Certificate to be accompanied by proof of having passed the necessary Preliminary Examination in General Knowledge.*

III. Candidates will be required to produce the following other Certificates, viz.:—1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of Professional knowledge. 3. Of having studied Practical Pharmacy during three months. 4. Of having attended Lectures on Anatomy, delivered not less frequently than four times in each week, during two Winter Sessions. 5. Of having performed Dissections during not less than two Winter Sessions. 6. Of having attended Lectures on Physiology, delivered not less frequently than twice in each week, during two Winter Sessions. 7. Of having attended Lectures on Surgery during two Winter Sessions, *of which one Course must not be earlier than the third Winter Session, at a recognised Medical School.* 8. Of having attended one Course of Lectures on each of the following subjects, viz., Chemistry, Materia Medica, Medicine, and Midwifery. 9. Of Instruction and Proficiency in the practice of Vaccination. 10. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Surgery during three Winter (c) and two Summer (d) Sessions; and of having, subsequently to the first Winter Session of the foregoing attendance, attended, at a recognised Hospital or Hospitals, Clinical Lectures on Surgery, during two Winter and two Summer Sessions. 11. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Medicine, and Clinical Lectures on Medicine, during one Winter and one Summer Session. 12. *Of having, subsequently to the completion of two years' Professional education, taken charge of Patients under the superintendence of a Surgeon during not less than Six months, at a Hospital, General Dispensary, or Parochial or Union Infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.* N.B.—Blank Forms of the required Certificates may be obtained on application to the Secretary, and all necessary Certificates will be retained at the College.

III.—1. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science.

2. Certificates will not be recognised from any Hospital in the United Kingdom unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the teachers in such School be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

3. No metropolitan Hospital will be recognised by this College which contains less than 150, and no provincial or colonial Hospital which contains less than 100 patients.

4. The recognition of colonial Hospitals and Schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial Hospitals and Schools in England.

5. Certificates of attendance upon the practice of a recognised provincial or colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital attendance required by the regulations of this College; and in such cases Clinical Lectures will not be necessary, *but a certificate of having acted as Dresser for the period of at least six months will be required.*

6. Certificates will not be received from Candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on lectures and Hospital Practice within fifteen days from the commencement of the Session; nor from Candidates who have studied in the provincial Schools in England, unless their names shall be duly returned from their respective Schools.

N.B.—At the registration in October, Candidates who shall have commenced their Professional Education subsequently to October 1, 1862, will be required to produce a certificate of having passed one or other of the Preliminary Examinations in General Knowledge recognised by this College.

NOTE.—*The regulations in italics in Sections* II. *and* III. *apply to Candidates in the United Kingdom who commenced their Professional Education on or after October* 1, 1863; *and to Candidates who commenced their Professional Education in the colonies on or after October* 1, 1864.

7. Those Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several Certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from Candidates for their Diploma, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four entire

(b) This Regulation applies to Candidates who commenced their Professional Education on or after October 1, 1862.

(c) The Winter Session comprises a period of six months, and, in England, commences on the 1st of October, and terminates on the 31st of March.

(d) The Summer Session comprises a period of three months, and, in England, commences on the 1st of May, and terminates on the 31st of July.

years in the acquirement of Professional knowledge; and in the case of Candidates who shall have pursued the whole of their studies at recognised Foreign or Colonial Universities, upon the production of the several Certificates required for their Degree by the Authorities of such Universities, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four entire years in the acquirement of Professional knowledge.

8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their Diploma, Licence, or Degree, together with proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four entire years in the acquirement of Professional knowledge.

9. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to examination on adducing, together with their Diploma or Degree, proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four entire years in the acquirement of Professional knowledge.

IV. *Professional Examination.*—This Examination is divided into two parts—1. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. 2. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery, is partly written, partly oral, and partly on the practical use of Surgical apparatus. 3. The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary, or Anatomical and Physiological Examination, until after the termination of the second Winter Session of their attendance at a recognised School or Schools; nor to the Pass, or Surgical Examination, until after the termination of the fourth year of their Professional Education. 5. The fee of five guineas paid by each Candidate prior to his Primary Examination will not be returned, but will be allowed in the fee on his admission as a Member. 6. A Candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. 7. A Candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a certificate of the performance of dissections during not less than three months, subsequently to the date of his reference. 8. A Candidate referred on the Pass Examination is required, prior to his admission to re-examination, to produce a certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference.

THE SOCIETY OF APOTHECARIES,

BLACKFRIARS, E.C.

REGULATIONS, ETC.

Every Candidate for a Certificate of Qualification to practise as an Apothecary will be required to produce Testimonials—

1. Of having passed a Preliminary Examination in Arts as a test of General Education.

This Examination must be passed before the commencement of Professional Studies, which is defined by the Medical Council "to be the time of commencing Studies at a Medical School."

2. Of having served an Apprenticeship or Pupilage of not less than five years to a Practitioner qualified by the Act of 1815. This period may include the time spent in attending Lectures and Hospital Practice.

3. Of having attained the full age of twenty-one years, of which satisfactory evidence will be required.

4. Of good moral conduct.

5. And of having pursued a course of Medical study in conformity with the Regulations of the Court.

COURSE OF STUDY.

Every Candidate whose attendance on Lectures shall commence on or after October 1, 1863, must attend the following Lectures and Medical Practice during not less than three winter and three summer sessions: each winter session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each summer session to extend from the 1st of May to the 31st of July.

First Year.—Winter Session.—Chemistry; Anatomy and Physiology; Dissections. Summer Session.—Botany; Materia Medica and Therapeutics; Practical Chemistry.(a)

Second Year.—Winter Session.—Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session.—Midwifery and Diseases of Women and Children;(b) Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session.—Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice. Summer Session.— Practical Midwifery and Vaccination (b); Morbid Anatomy; Clinical Medical Practice.

No Certificates of Lectures, or of Anatomical Instructions delivered in private to particular Students apart from the ordinary classes of recognised public Medical Schools, can be received by the Court of Examiners.

All Certificates must be given on a printed Schedule, and signed by the respective Lecturers. Students will be supplied with Schedules at the time of their first Registration: in London at this Hall, and in the Provincial Towns by the Registrars of the Medical Schools.

All Students are required personally to Register the several Tickets of admission to Lectures and Medical Practice within the first fifteen days of the months of October and May.

Examination in Arts.—An Examination in Arts will take place at the Hall three times in the year—viz., on the last Friday and Saturday in the months of January, April, and September. N.B. By order of the Medical Council an Examination in Arts is compulsory on all Gentlemen commencing their studies on or after October 1, 1861, and must be passed previous to registration. Testimonials of proficiency in General Education will be received as exempting from the Examination in Arts at the Hall from the Educational Bodies recognised by the General Council, and also from any of the Licensing Bodies under the Medical Act of 1858.

Syllabus of Subjects for Examination, 1868 (c)—English History. The English Language: Its Structure and Grammar. Proficiency in Composition will be judged of by the style of the answers generally. Mathematics: The Ordinary Rules of Arithmetic; Vulgar and Decimal Fractions; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations; the First Book of Euclid. Natural Philosophy: Explain the Composition and Resolution of Statical Forces; describe the Mechanical Powers, and state the ratio of the Power to the Weight in each; define the Centre of Gravity; give the general Laws of Motion; state the Law of the Motion of Falling Bodies; define Specific Gravity, and show how it may be ascertained; describe and explain the Barometer, the Siphon, the Common Pump and Forcing Pump, and the Air Pump. The Latin Language: January Examination—Cæsar, De Bello Civili, Books I. and II.; April Examination—Virgil, Æneid, Books V. and VI.; September Examination—Cicero, Pro Lege Manilia. Easy Grammatical Questions will be introduced into the Latin Paper, and each Candidate will be expected to give satisfactory answers to these.

Voluntary Examination.(c)—The Greek Language, Xenophon, Anabasis, Books I. and II.; Grammatical Questions.

(a) By Practical Chemistry is intended a *specific* course of instruction in the Laboratory, with an opportunity of personal manipulation in the ordinary processes of Chemistry, and of acquiring a knowledge of the various re-agents for poisons.

(b) A Certificate of attendance, on not less than twenty cases, will be received from a legally qualified Practitioner.

(c) On October 1, 1868, the following regulations of the General Medical Council will come into operation, and the Preliminary Examination at the Hall will thenceforth be modified in accordance therewith. "The following subjects shall constitute a minimum to be required of Candidates for Preliminary Examination, viz.:—Compulsory Subjects—1. English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; 3. Geometry—First Two Books of Euclid; 4. Latin, including Translation and Grammar; and 5. One of the following Optional Subjects—1. Greek (after the year 1869, Greek shall be one of the compulsory subjects); 2. French; 3. German; 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

Logic: Whately's Elements of Logic, the Introduction, First Book, and Second Book to the end of Chapter III.

Professional Examinations.—The Court of Examiners meet in the Hall every Thursday, where Candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of Examination, and must at the same time deposit all the required testimonials (as before specified), with the fee, at the office of the Beadle, where attendance is given every day, except Sunday, from ten to four o'clock, and Saturdays from ten to two. The examination of Candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

First Examination, which may be passed after the second Winter Session, embraces the following subjects:—Latin, of the Pharmacopœia and Physicians' Prescriptions. Anatomy and Physiology. General and Practical Chemistry. Botany, Materia Medica, and Therapeutics.

Second or Pass Examination, after the third Summer Session (the five years' pupilage being completed):—Principles and Practice of Medicine, Pathology, and Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

All Graduates in Medicine of British Universities will be admitted to a Practical Examination in Medicine and Midwifery only.

Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland: of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a *viva voce* Examination in Medicine, Midwifery, Forensic Medicine, and Toxicology.

Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland, possessing a Surgical qualification only, will be admitted to a first and second Examination on one evening; which Examination will be conducted partly *viva voce*, and partly in writing; the latter in the subjects of Medicine, with Therapeutics. Midwifery, Forensic Medicine, and Toxicological Chemistry.

Any Candidate who has passed his first Examination for the Licence of the Royal College of Physicians, London; the Licence of the King and Queen's College of Physicians, Ireland; the joint Licence of the Royal Colleges of Physicians and Surgeons, Edinburgh; or for the single Licence of the College of Physicians, Edinburgh; the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first Professional Examination for the Degree of M.B. or Master in Surgery in the Universities of Oxford, Cambridge, or London; or the second part of the Professional Examination for the Degree of M.B. or Master in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrew's, and Glasgow; or the first Examination for Medical and Surgical Degrees in the Irish Universities; or the first Examination for the Licence of the Apothecaries' Company, Dublin, will be admitted to a single Examination in Materia Medica, Therapeutics, Medicine, Pathology, Midwifery, and Toxicology, part of which Examination will be conducted in writing.

The examination of Candidates for certificates of qualification to act as Assistant, in compounding and dispensing medicines, will be as follows:—In translating Physicians' Prescriptions, and the Pharmacopœia Londinensis. In Pharmacy and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected Candidate can be re-examined until the expiration of six months from his former examination. A Candidate rejected on his first Professional Examination can be admitted for re-examination after the expiration of three months.

Fees.—For a Certificate of Qualification to Practise, Six Guineas; for an Assistant's Certificate, Two Guineas.

Students' Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and also two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry.

The prizes consist of a Gold Medal awarded to the Candidate who distinguishes himself the most in the examination; and of a Silver Medal and a Book to the Candidate who does so in the next degree.

ARMY MEDICAL DEPARTMENT.

WHITEHALL-YARD.

QUALIFICATIONS AND EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE ARMY MEDICAL SERVICE.

1. Every Candidate desirous of presenting himself for admission to the Competitive Examination required for the Army Medical Service must be unmarried. He must produce a birth certificate from the District Registrar, or a certificate of baptism in which the date of birth is stated; or if neither of these can be obtained, an affidavit from one of the parents, or from some other near relative who can attest the date of birth, will be accepted. The certificate or affidavit must show that the Candidate is not above 28 nor under 21 years of age. He must also produce certificates of moral conduct and character, one of them from the parochial minister if possible.

2. The Candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer in any climate. He must also attest his readiness to engage for general service immediately on being gazetted.

3. The Candidate must possess a Diploma in Surgery, or a licence to practise it, as well as a Degree in Medicine, or a licence to practise it, in Great Britain or Ireland.

4. Certificate of registration in accordance with the Medical Act of 1858, and of age and character, must be lodged at the Army Medical Department, for examination and registry, at least one week before the Candidate appears for examination.

5. On producing the foregoing qualifications, the Candidate will be examined by the Examining Board in the following subjects:—Anatomy and Physiology, Surgery, Medicine, including Therapeutics, the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical Apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Candidates *who desire* it will be examined in Comparative Anatomy, Zoology, and Botany, with special reference to Materia Medica, and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of Science.

6. The names of Candidates who pass the Preliminary Examination of the Examining Board will be sent to the Director-General and communicated to the Professors of the Army Medical School. The names will be arranged in the order of merit.

7. After passing his Preliminary Examination, every Candidate will be required to attend one entire course of Practical Instruction at the Army Medical School before being admitted to his examination for a Commission. These courses to be of not less than four months' duration.

8. At their conclusion the Candidate will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any Medical officer deputed by him, may be present and take part in the examination. If the Candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical officer, he will be eligible for a Commission as Assistant-Surgeon.

9. During the period of his residence at the Army Medical School each Candidate will receive an allowance of 5s. per diem, with quarters, or 7s. per diem without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the regulation undress uniform of an Assistant-Surgeon, but without the sword).

10. All Candidates will be required to conform to such rules of discipline as the Senate may from time to time enact. The Assistant-Surgeon is subjected to three separate Examinations within the first ten years of his service, each Examination having a definite object. The first, to ascertain, previous to his admission into the Service as a Candidate, his scientific and Professional education, and to test his acquirements in the various branches of Professional knowledge; the second, after having passed through a course of special instruction in the Army Medical School, to test his knowledge of the special duties of an Army Medical Officer; and the third,

previous to his promotion, to ascertain that he has kept pace with the progress of Medical Science.

11. The Competitive Examinations for Commissions in the Army Medical Service are held at Chelsea on the second Monday of February and August in each year.

ARMY MEDICAL SCHOOL.

President of the Senate.—T. G. Logan, C.B., M.D., Director-General of the Army Medical Department.

Members of the Senate.—Sir Ranald Martin, C.B., Physician to the Indian Council; Inspector-General W. M. Muir, C.B., M.D., Principal Medical Officer, Royal Victoria Hospital; Deputy-Inspector-General T. Longmore, C.B., Professor of Military Surgery; Deputy-Inspector-General W. C. Maclean, Professor of Military Medicine; William Aitken, M.D., Professor of Pathology; E. A. Parkes, M.D., F.R.S., Professor of Military Hygiene.

Assistant Professors.—Staff-Surgeon Major W. A. Mackinnon, C.B.; Staff-Surgeon W. J. Fyffe, F. François de Chaumont, and Staff-Assistant-Surgeon V. Wearne.

Candidates for Commissions in the Army, and in the Queen's Indian Service, proceed to Netley after passing the Competitive Examination at Chelsea. At Netley they attend the Medical and Surgical Practice of the Royal Victoria Hospital, and learn the system and arrangements of Military Hospitals. During four months they attend the Lectures given by the Professors and Assistant-Professors, and go through a course of Practical Instruction in the Hygienic Laboratory and Microscopical Room. The Lectures and Practical instruction are intended to explain the specialties of Military Medical Practice, attention being directed to gunshot and other wounds, Surgical arrangements in the field during action and sieges, means of transport, field Hospitals; tropical diseases and their means of investigation, service in India and in the various colonies, the sanitary arrangements in peace and war, and the means of carrying out the sanitary regulations. Every opportunity is taken of practising operations on the dead body and practical points of a like kind. See Nos. 9 and 10 above.

NAVY MEDICAL DEPARTMENT.

REGULATIONS RELATIVE TO THE EXAMINATION OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

1. That a Candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty, on the receipt of which application he will be furnished with the regulations, and a printed form, to be filled up by him, to show if he possesses the required qualification.

2. As vacancies occur, the number of Candidates required will be ordered to attend at the Admiralty Office on the first Tuesday in alternate months, commencing with Tuesday, July 2, 1867; but it is to be observed, that no person can be admitted as an Assistant-Surgeon in the Royal Navy unless he can produce satisfactory evidence that his name has been placed on the Medical Register as legally qualified to practise both Medicine and Surgery according to the Regulations established by the Medical Act. And further, he will be required to make a declaration that he is free from any mental or bodily disease, defect, or infirmity which could interfere with the efficient discharge of his duties as a Medical Officer in the Navy.(a)

3. Each Candidate will be required to produce a Certificate of good moral character, signed by the clergyman of the parish, or by the magistrate of the district.

4. A Certificate that he is not less than 20 nor more than 28 years of age.

5. That he has received a preliminary Classical Education.

6. That subsequently to the age of 18 he has actually attended a recognised Hospital for eighteen months, in which the average number of patients is not less than 100.

7. That he has been engaged in actual dissection for twelve months, and that he has performed the principal capital and minor operations on the dead body under a qualified teacher. The Certificates of Practical Anatomy must state the number of subjects or parts dissected by the Candidate.

8. On producing the above Certificates he will be examined before a Board of Naval Medical Officers, specially summoned by their Lordships, on the following subjects, viz.:—Anatomy, Surgery, Physiology, or Institutes of Medicine, Practice of Medicine, Chemistry, Materia Medica, Midwifery, Botany.

9. Although the above are the only qualifications which are absolutely required in Candidates for the appointment of Assistant-Surgeon, a favourable consideration will be given to those who have obtained the Degree of M.D. from any University in the United Kingdom, or who, by possessing a knowledge of the diseases of the eye, or of any branch of science connected with the Profession, such as Medical Jurisprudence, Natural History, and Natural Philosophy, appear to be more peculiarly eligible for admission into the service, observing, however, that lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the regulations.

10. Such Candidates as shall have been found in all respects competent for the appointment of Assistant-Surgeon will be forthwith nominated to one of Her Majesty's Ships, or to a Naval Hospital at home; or, should their services not be immediately required, their names will be duly registered for early appointments as vacancies may occur. But it is distinctly to be observed, that Candidates admitted into the Naval Medical Service must serve in whatever ship they may be appointed to; and that in the event of their being unable to do so from sea-sickness, their names cannot be continued on the Naval Medical List, nor can they, of course, be allowed half-pay.

11. By the rules of the service no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea, after which he will be required to pass an examination before a Board of Naval Medical Officers, assembled at the department of the Medical Director-General of the Navy.

12. Assistant-Surgeons at home, after completing the stipulated five years' service, may, if the public service will admit, be granted two months' leave of absence on full pay on condition of their resuming their studies at a Medical School or Hospital.

13. Their Lordships have been pleased further to direct that a limited number of those Candidates, who pass the best examination on entering the service, shall be promoted annually to the rank of Surgeon at an earlier period than would occur under ordinary circumstances; and that these promotions shall be awarded as follows:—The Candidate who passes the best examination of his year—after five years' service. The Candidate who passes the second best examination of his year—after six years' service. The Candidate who passes the third best examination of his year—after seven years' service. Provided, however, that their second examinations are passed in an equally creditable manner, and that their conduct during the whole time they have been in the service has in all respects been satisfactory.

(a) His physical fitness will be determined by the Board of Medical Officers, who will be required to certify that his vision is sufficiently good to enable him to perform any Surgical operation without the aid of glasses, and that he is free from organic disease, constitutional weakness, or other disability likely to unfit him for the Naval Service in any climate.

RULES AND REGULATIONS
OF THE
EXAMINING MEDICAL BODIES IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

GRADUATION IN MEDICINE.—STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO GRADUATION IN MEDICINE AND SURGERY.

THREE Medical Degrees are conferred by the University of Edinburgh, viz.—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

I. The preliminary branches of extra-Professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by Examination, prior to the commencement of their Medical Study.

II. No Candidate is admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the Examination on these latter subjects also takes place before the Candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland,

or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all Preliminary Examination; and an Examination in Arts by any Corporate Body, whose Examination has been recognised as qualifying for entrance on Medical Study by Resolution of the General Medical Council of the United Kingdom, provided the said Examination by the said Corporate Body shall be also approved by the University Court, shall exempt from Preliminary Examination in Arts, or all subjects comprised in the said Examination of the said Corporate Body.

IV. No one is admitted to the Degree of Bachelor of Medicine or Master in Surgery who has not been engaged in Medical and Surgical Study for four years – the Medical Session of each year, or *Annus Medicus*, being constituted by at least two courses of not less than one hundred Lectures each, or by one such course, and two courses of not less than fifty Lectures each; with the exception of the Clinical Courses, in which Lectures are to be given at least twice a week during the prescribed periods.

V. Every Candidate for the Degree of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of Medical Science, during Courses including not less than 100 Lectures, viz.:—Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children (Two Courses of Midwifery, of Three Months each, being reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses), General Pathology (or in Schools where there is no such Course, a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine, or Clinical Medicine), Practical Anatomy; Practical Chemistry, Three Months; Practical Midwifery (Three Months at a Midwifery Hospital, or a Certificate of Attendance on Six Cases from a Registered Medical Practitioner); Clinical Medicine and Clinical Surgery (Courses of not less than 100 Lectures, or Two Courses of Three Months, Lectures being given at least twice a week); Medical Jurisprudence, Botany, and Natural History, including Zoology (during Courses including not less than Fifty Lectures).

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has been engaged, for at least three months, by Apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a member of the Pharmaceutical Society of Great Britain.

4. That he has attended, for at least six months, by Apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or member of the London or Dublin Society of Apothecaries.

VI. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of Medical and Surgical Study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical Study must be either in the University of Edinburgh or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital, which accommodates at least eighty patients, and, during the same period, on a Course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures, as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures, as above prescribed.

5. Candidates may, to the extent of four of the Departments of Medical Study required by Section V., Sub-section 1, attend in such year or years of their Medical and Surgical Studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

6. All Candidates, not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

VII. Every Candidate must deliver, before March 31 of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, and that he will not be, on the day of graduation, under articles of apprenticeship to any Surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

VIII. Each Candidate is examined, both in writing and *viva voce*—First, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, Materia Medica, and Pathology; thirdly, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; fourthly, Clinically on Medicine and on Surgery in an Hospital The Examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by demonstrations of objects placed before the Candidates.

IX. Students who profess themselves ready to submit to an Examination on the first division of these subjects at the end of their second year, may be admitted to Examination at that time.

X. Students who have passed their Examination on the first division of these subjects, may be admitted to Examination on the second division at the end of their third year.

XI. The Examination on the third and fourth divisions cannot take place until the Candidate has completed his fourth *Annus Medicus*.

XII. Candidates may, if they choose, be admitted to Examination on the first two of these divisions at the end of their third year, or to the four Examinations at the end of their fourth year.

XIII. If any Candidate, at these Examinations, be found unqualified, he cannot be again admitted to Examination unless he has studied during another year two of the prescribed subjects, either in the University, or in some other School of Medicine.

XIV. The degree of Doctor of Medicine may be conferred on any Candidate who has obtained the degree of Bachelor of Medicine, and is of the age of 24 years, and has been engaged subsequently to his having received the degree of Bachelor of Medicine, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice: Provided always that the degree of Doctor of Medicine shall not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, Higher Mathematics, and Natural Philosophy. And provided also that the Candidate for the degree of Doctor of Medicine shall submit to the Medical Faculty a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.

XV. The Medical Examiners for all Candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition, three persons appointed annually by the University Court.

XVI. The provisions of these Statutes came into operation on February 4, 1861.

XVII. Persons who began their Medical studies before February 4, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

Notice to Candidates for Graduation in Medicine.—Candidates who commenced their Medical studies by attendance on Qualifying Classes before the 4th day of February, 1861, are entitled to appear for Examination for the Degree of Doctor of Medicine, after four years' study, on completing their twenty-first year, and without having taken the Degree of Bachelor of Medicine. They are also exempted from the Preliminary Examinations mentioned in Sections I. and II., and require only to undergo an Examination in Latin. They are also exempted from attendance on Practical Chemistry and Practical Midwifery, and require only three months of Clinical Surgery, and eighteen months of Hospital attendance.

In provincial schools a candidate can make *one Annus Medicus only*, and this is constituted by attendance on a qualified Hospital, along with a course of Practical Anatomy.

In the Hospital Schools of London, in the Extra-Academical School of Edinburgh, and in the School of the College of Surgeons of Dublin, a candidate may make two *Anni Medici*—one of which must be constituted by Hospital attendance and Practical Anatomy, and the other by at least two six-months' courses, or one six-months' course, and two three-months' courses. The classes at these schools only qualify to the extent of four.

The Edinburgh Extra-Academical Classes only qualify if the fee paid at the commencement of the Session is the same as that paid to the Professors in the University.

In London the Classes at University College and King's College are reckoned equivalent to those of Universities. But the three months' courses of Materia Medica and Midwifery do not qualify. Preliminary Examinations in Arts, 22nd and 23rd October, 1867; 24th and 25th March, 1868. First Professional Examination, 26th October, 1867; 1st April, 1868. Second Professional Examination, 9th and 10th July, 1867; 8th and 9th April, 1868. Final Professional Examination, 4th, 5th, and 6th June, 1868. Degree of Theology, 31st July. Graduation, 1st August. Candidates who appear for examination must produce certificates of complete courses of the subjects on which they are to be examined. A degree in Arts of any University of the United Kingdom or of the Colonies, or of such other Universities as may be specially recognised by the University Court, exempts from Preliminary Examination. (a)

The Preliminary Examinations in Arts accepted by the General Medical Council are recognised *pro tanto*, that is to say, they exempt from Examination in Arts on the subjects comprised in them, so far as the Examinations are of the same extent as those required by this University. Any subjects required by the Statutes, and not included in these examinations, or not carried out to the requisite extent, must be passed at the University.

The Fee for Examination must be deposited with the Clerk before the day of Examination. In the event of the candidate not passing, the fee is not returned, but he may appear at future Examinations without paying an extra fee. The Fees are:—For the Degree of M.B., three Examinations, £5 5s. each. £15 15s. For the Degree of C.M., £5 5s additional. For the Degree of M.D., £5 5s additional to that for M.B., exclusive of £10 Government Stamp. Total Fees and Stamp for graduating as M.D. only, by Regulations for Students commencing before February, 1861, £25. Students are recommended to commence their Medical studies by attending a Summer Session.

MEDICAL DEGREES.—PRELIMINARY EDUCATION IN ARTS.
PROGRAMME FOR 1867-68.

I. In conformity with Section I. of the Statutes, Examinations on the Preliminary Branches of Extra-Professional Education will take place on Tuesday and Wednesday, 22nd and 23rd October, 1867; and on Tuesday and Wednesday, 24th and 25th March, 1868, at 10 o'clock a.m. Examination on Tuesday—English, Arithmetic, Mechanics, Greek, Higher Mathematics, and German. Examination on Wednesday—Latin, Elements of Mathematics, Natural Philosophy, French, Logic, and Moral Philosophy. 1. English.—Writing out a narrative, with strict attention to correct spelling, the proper selection of words, the form of the sentences, and punctuation. 2. Latin.—Ninth Æneid of Virgil, an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be translated into Latin—the more difficult Latin words being given. 3. Arithmetic.—The Common Rules, including Decimals. 4. Elements of Mathematics.—Euclid, Books i., ii., and iii., and the Rudiments of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. Elements of Mechanics.—Elementary Mechanics and Hydrostatics.

II. At the same dates, Examinations will take place in conformity with Section II. of the said Statutes, which enacts that no candidate shall be admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects (in addition to the subjects mentioned above):—1. Greek.—Fourth Book of Xenophon's Anabasis. 2. French.—La Fontaine's Fables. 3. German.—Schiller's Wallenstein. 4. Higher Mathematics.—Euclid, Books i. to vi.—Algebra, Trigonometry, and Conic Sections. 5. Natural Philosophy.—A general knowledge of the Elements of Natural Philosophy, as in Ganot's Physics, translated by Atkinson. 6. Logic.—Whately's Elements of Logic, Introduction and Book i., along with "Introduction" and "Intellectual Powers of Man" (Part I. in Stewart's "Outlines," will form the basis of the Examination. 7. Moral Philosophy.—Springs of Action—Duties—Ethical Theories, as, *e.g.*, in Stewart's "Outlines," Part II., will form the basis of the Examination.

III. In Section XVII. of the said Statutes it is enacted, That the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination on three of the subjects mentioned in Section II. Two of these must be Greek and Logic or Moral Philosophy, and the third may be any one of the following subjects—namely, French, German, Higher Mathematics, Natural Philosophy.

(a) The Degrees in Arts of the following Universities were recognised as exempting from Preliminary Examination previous to 11th October, 1866:—Calcutta, Melbourne, New Brunswick, Malta, and Kingston Canada. On 11th October, 1866, the University Court recognised the Degrees of all other Colonial Universities.

Examinations of the same extent, and on the same subjects at other British Universities granting the Degree of M.D., will exempt from these Preliminary Examinations. Certificates of having passed such examinations must be produced, with an official notice of the subjects on which the Candidate has passed an Examination.

Students who come under the Old Statutes, in consequence of having commenced their Medical Curriculum by attendance on Classes before February 4, 1861, will be examined in Latin on Wednesday, October 23, 1867, and Wednesday, March 25, 1868, at 10 A.M. For nature of Examination, see page 10 (2 Latin).

The Medical Faculty have resolved that the Written and Oral Examinations on Chemistry, Botany, and Natural History, in October 1867 and April 1868, shall be restricted in the following manner:—

1. *Chemistry.*—A knowledge of the General Laws of Affinity and Equivalents will be required. There must be a general acquaintance with the Chief Chemical Properties of the more common Elementary Bodies and their Compounds, especially those relating to Air and Water, and those commonly used in Medicine. In Organic Chemistry, the leading Laws must be known, and the Chief Families of Compounds, such as Ethers and Alcohols, must be familiar to the Candidate. But special knowledge will be required of the Chemistry of the Nutritive and Digestive Fluids, the Excretions, and the Chemistry of Food.

2. *Botany.*—The Structure and Functions of Plants, the Principles of Classification, Classes, Sub Classes, and Sections of the Natural System—(see Balfour's "Class Book," or his "Manual of Botany.") Botanical characters to be demonstrated on conspicuous Specimens of the following Natural Orders:—Ranunculaceæ, Papaveraceæ, Cruciferæ, Caryophyllaceæ, Malvaceæ, Leguminosæ, Rosaceæ, Onagraceæ, Umbelliferæ, Dipsaceæ, Compositæ, Boraginaceæ, Labiatæ, Scrophulariaceæ, Primulaceæ, Euphorbiaceæ, Amentiferæ Coniferæ, Orchidaceæ, Amaryllidaceæ, Liliaceæ, Palmæ, Filices. The Student will be examined practically on the Microscopical Structure of Plants, and he will be required to describe the Organs of Fresh Plants put into his hands.

3. *Natural History.*—The general principles of Zoological Classification. Characters depending on specialisation of organs, and on Morphological type. The general Morphology of the Primary Groups of the Animal Kingdom. The general Morphology of the Classes of the Vertebrata, and of the orders of Amphibia, Reptilia, and Mammalia. The principal Morphological and Physiological characters of the following groups:—Insecta, Crustacea, Echinodermata, Cephalopoda, Gasteropoda, Lamellibranchiata, Actinozoa, Hydrozoa, Rhizopoda.

Candidates who mean to appear at any of these Examinations must inscribe their names, with the number of their Matriculation Ticket and their address, ten days at least before the date of the Examination, in a Book which is kept at the Secretary's Office, College. Those who claim to be under the old Statutes must produce evidence of having attended qualifying Classes before February 4, 1861.

UNIVERSITY OF ABERDEEN.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, dated March 16, 1861, and approved by Her Majesty in Council.

The following are the Degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examination for the Degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities' Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of Medical and Surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the Degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each Candidate for the Degree of M.B. shall pay a fee of five guineas in respect of each of the three Professional Examinations.

2. If the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas.

3. And every Candidate for the Degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their Medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the Degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

Further information may be obtained from the Dean of the Medical Faculty, Professor Macrobin, M.D.

UNIVERSITY OF ST. ANDREWS.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners; they therefore generally correspond with those of the Universities of Edinburgh, Aberdeen, and Glasgow.

The Degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examinations for these Degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for Candidates for the Degrees of Bachelor of Medicine and Master of Surgery present some difference:—

No one shall be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of Medical and Surgical Study shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of Medical and Surgical Study, other than those for which provision is made by the Ninth Section, may be either in one or more of the Universities and Colleges above specified, or in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of Medicine as may from time to time receive recognition from the University Court.

Attendance on the Lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen, shall not be reckoned for graduation in St. Andrews, if the fee for such Lectures be of less amount than is charged for the like Course of Lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Every Candidate for the Degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first, on Chemistry, Botany, Elementary Anatomy, and Materia Medica; secondly, on advanced Anatomy, Zoology, with Comparative Anatomy, Physiology, and Surgery, and, thirdly, on Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

FEES FOR GRADUATION.

For the Degree of Bachelor of Medicine five guineas in respect of each of the three divisions of the Examination on Professional subjects; and if the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but, if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas; and every Candidate for the Degree of Doctor of Medicine, who has previously obtained the Degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a Candidate for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—The Degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of forty years, whose Professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his Professional knowledge; provided always, that Degrees shall not be conferred under this Section to a greater number than ten in any one year. Fee £52 10s.

REGULATIONS AS REGARDS THE EXAMINATION OF REGISTERED MEDICAL PRACTITIONERS ABOVE THE AGE OF FORTY YEARS.

On or before the 25th day of March in each year, Candidates shall lodge with the Registrar of the University the following certificates and deposits:—

I. A Certificate of Age.

II. Certificates from three Medical Men, of such acknowledged reputation in the Profession, or of such standing in the Medical Schools, as shall satisfy the Senatus of the Professional Position and Experience of the Candidate.

III. A certain portion (viz., £10 10s.) of the Graduation Fees; which sum shall be forfeited should the Candidate fail to appear at the time appointed for examination, or should he fail to pass the prescribed examination.

IV. The Examination shall be conducted both in writing and *viva voce*, and shall include the following subjects:—1. Materia Medica and General Therapeutics. 2. Medical Jurisprudence. 3. Practice of Medicine and Pathology. 4. Surgery. 5. Midwifery.

As regards the last two subjects—viz., Surgery and Midwifery—a minute knowledge shall not be required from those who do not practise these branches of the Profession.

Further information may be obtained on application to the Registrar of the University.

UNIVERSITY OF GLASGOW.

Three Degrees in Medicine are granted—viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). [The Preliminary Examination, Curriculum, and Professional Examinations for these Degrees, being in conformity with the Ordinance of the Scottish University Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the Curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or some other University entitled to give Degrees in Medicine.

These Statutes apply to all Candidates who commenced their Medical studies on or after October 1, 1861. Candidates who began their Medical studies before that date are entitled to obtain their Degrees according to the regulations existing at the time when they commenced their studies.

The annual term for conferring Medical and Surgical Degrees is the third Thursday in May.

The fees for the Degrees are as follows:—For the Degree of M.B. (for each of three examinations, £5 5s.), £15 15s.; for that of C.M. (in addition to the fee for M.B.), £5 5s.; for the Degree of M.D. (in addition to the fee for M.B.), £5 5s.; and the Government stamp for the Diploma, &c., £10 3s.

The Preliminary Examinations of Medical Students in branches of General Education take place at the beginning and at the end of the Winter Session.

The regulations under which the above Degrees are granted, and the notices of the subjects of Examination, will be obtained by application to the Registrar of the University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE, 1867-68.

These are the same as those for the Double Qualification in Medicine and Surgery conferred by the Colleges of Physicians and Surgeons (see below), with the following exceptions in Professional education:—Anatomy, 1 Course, six months; Practical Anatomy, 1 Course, six months, or 2 Courses, three months each; Physiology or Institutes of Medicine, 1 Course, three months; no third Course of Medicine; Clinical Surgery, 1 Course, three months; no third Course of Surgery; Pathological Anatomy, 1 Course, three months; or General Pathology, 1 Course, three months; Practical Pharmacy, 1 Course, three months.

Candidates for the Licence of the College who already possess a qualification from a recognised Licensing Body, or who have passed the First Professional Examination before a Qualifying Body, will not be required to be re-examined on Anatomy, Physiology, and Chemistry, but will be at once admitted to the Second Part of the Examination.

No Candidate is admissible to Examination who has been rejected by any other Licensing Board within three months previous to his Examination.

The fee payable by a Licentiate is Ten Guineas. In the event of a Candidate being unsuccessful at his Examination, the sum of Two Guineas will be retained to defray expenses.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

These are the same as those given below for the conjoined qualification in Medicine and Surgery conferred by the Colleges of Physicians and Surgeons, with the following exceptions in Professional education:—

No third course of Medicine and no course of Pathological Anatomy are required.

A certificate of three months' instruction in Pathological Anatomy at the post-mortem room of a recognised Hospital will be required from Candidates commencing Professional study after October 1, 1861.

The following order of study is recommended as a guide to the Student, though not enjoined:—First Year: Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Hospital. Second Year: Anatomy, Practical Anatomy, Physiology, Surgery, Materia Medica (the last either in this or the Third Year), Hospital. Third Year: Practice of Physic, Clinical Surgery, Practical Anatomy, Practical Pharmacy, Pathological Anatomy, Hospital. Fourth Year: Surgery, or Clinical Surgery, Midwifery and the Diseases of Women and Children, Clinical Medicine, Medical Jurisprudence, Practical Midwifery, Hospital.

It is strongly recommended to Students to avail themselves of any opportunities which they may possess of attending Lectures on Ophthalmic and Mental Diseases; also on Botany, Zoology, Comparative Anatomy, and the use of the Microscope, in addition to the Courses of Lectures which are absolutely prescribed.

The Regulations for the Preliminary Examination in General Education generally correspond with those to be observed by Candidates for the joint qualifications of the Royal Colleges of Physicians and Surgeons, Edinburgh.

PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

The Regulations are generally the same as those for the Professional Examinations for the joint Diploma of the two Colleges, with the following exceptions:—

The sum of £4 must be paid to the Treasurer of the College for the First Examination, not later than 10 a.m. of the day preceding it. This sum will be considered as paid to account of the entire fee of £10 payable for the Diploma.

In the case of a Candidate being unsuccessful at this Examination, £2 will be returned to him, the remaining £2 being retained to meet the expense of the Examination.

Registered Medical Practitioners whose Degree or Licence in Medicine is dated prior to October 1, 1861, are exempt from the first Professional Examination. The Examinations under this regulation may take place on the first and third Tuesdays of each month.

The Second Examination embraces Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of Study.

Applications for Examination must be made to the Secretary not later than the Monday previous to the day of the first examination.

Every Candidate must produce to the Secretary — (1) Satisfactory evidence of his having attained the age of twenty-one years; (2) the tickets and the Certificates of his classes; (3) the Certificate of his having passed the first Professional Examination; (4) a tabular statement (for which a printed form will be furnished by the Officer) exhibiting the full amount of his Professional education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each session of his studies. If he have been an Apprentice, he must also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature, and will be preserved by the College as a record.

If the Candidate have been an Apprentice to a Fellow of the College, he must also produce his discharged indenture.

The remaining fee payable to the College (being £6), together with the receipt for the fee paid for the first Professional Examination, must be lodged not later than 10 a.m. of the day preceding the examination day in the hands of the Treasurer, who will certify this upon the Inspector's letter. The sum of £4 will be returned to unsuccessful Candidates.

After November 11, 1867, all Candidates will be subjected to a practical Clinical Examination in the Surgical Hospital, which examination will include Surgical apparatus, bandages, etc.

FEES.

1. For the Diploma of the College, £10. 2. For a Certificate of Qualification to act as Assistant-Surgeon in the Navy, when no previous qualification has been received from the College, £5 5s.

NOTE.—The Fee payable for the Diploma by Apprentices of those who were Fellows of the College prior to the Charter of 1851 is £5.

The following will be the periods of Examination for the Diploma of the Royal College of Surgeons of Edinburgh, for the year 1867-68;—

I. Preliminary Examinations in General Education, on Saturday, Oct. 26, 1867; on Saturday, Nov. 9, 1867; on Saturday, April 25, 1868: on Saturday, July 25, 1868.

II. First Professional Examinations, on Tuesday, Oct. 22, 1867; on Tuesday, Jan. 21, 1868; on Tuesday, March 31, 1868; on Tuesday, April 28, 1868; on Tuesday, July 7, 1868; on Tuesday, July 21, 1868; on Tuesday, October 20, 1868.

III. The Second Professional Examinations will take place immediately after the conclusion of the first Professional Examinations, at each of the above-mentioned periods. They will generally be begun on the Thursday succeeding to the day of the first Examination, and in no case on any earlier day.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the Student may obtain the Diplomas of both Colleges.

Students passing the joint Examination successfully will be enabled to register two qualifications under the Medical Act—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

PROFESSIONAL EDUCATION.

Candidates commencing Professional Study after October 1, 1865, must have been engaged in Professional Study during four years after the Examination in General Education, which shall include not less than four Winter Sessions', or three Winter and two Summer Sessions' attendance at a recognised Medical School. (a)

The Candidate must have attended the following separate and distinct courses of lectures:—

Anatomy: Two Courses, Six Months each. (b) Practical Anatomy: Twelve Months; or, at the option of the Candidate, Anatomy: One Course, Six Months; Practical Anatomy: Eighteen Months. Chemistry: One Course, Six Months. Practical or Analytical Chemistry: One Course, Three Months. Materia Medica: One Course, Three Months. Physiology: Not less than Fifty Lectures. (c) Practice of Medicine: One Course, Six Months. Clinical Medicine, Six Months. (d) A Third Course of Medicine, which may be either Practice of Medicine or Clinical Medicine, at the option of the Student: One Course, Six Months. Principles and Practice of Surgery: One Course, Six Months. Clinical Surgery: One Course, Six Months. A Third Course of Surgery, which may either be Principles and Practice of Surgery or Clinical Surgery, at the option of the student: One Course, Six Months (d) Midwifery and the Diseases of Women and Children: One Course, Three Months. Medical Jurisprudence: One Course, Three Months. Pathological Anatomy: Three Months (e)

Besides the above-mentioned Courses of Lectures the Candidate must have attended at least six cases of labour under the superintendence of a qualified Medical Practitioner, either in a recognised maternity Hospital, or a Dispensary where Midwifery Cases are admitted, or in private practice; and must produce a certificate to that effect from the Practitioner under whom he attended. He must also have attended for three months a course of instruction in Practical Pharmacy at the Laboratory of an Apothecary, or of a Member of the Pharmaceutical Society of Great Britain, or of a Chemist and Druggist recognised by either College on special application, or of a public Hospital or Dispensary, or as Assistant to a registered Practitioner who dispenses medicines to his own patients.

The Candidate must also have attended for twenty-four months a public general Hospital containing, on an average, at least eighty patients. He must also have attended, for six months, the practice of a public Dispensary specially recog-

(a) Candidates commencing study prior to the above date will be admitted to examination after four Winter Sessions' or three Winter and two Summer Sessions' attendance on classes at a regular Medical school.

(b) The two Courses must not be simultaneous.

(c) In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these Courses will be received as a Course of Anatomy, and the other as a Course of Physiology.

(d) Two Courses of Clinical Medicine, of three months each, if not simultaneous, will be held as equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules will apply to Clinical Surgery.

(e) A Certificate of attendance on the post-mortem examinations at a general Hospital will be accepted in lieu of this Course.

nised by either College; or have been engaged for six months as visiting Assistant to a registered Practitioner.

A Certificate of Proficiency in Vaccination, signed by a registered Practitioner, will be required of every Candidate.(f)

The six months' Courses delivered in Scotland must consist of not fewer than 100 Lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' Courses must consist of not fewer than 50 Lectures.

The following order of study is recommended as a guide to the Student, though not enjoined:—First Year: Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Hospital. Second Year: Anatomy, Practical Anatomy, Physiology, Surgery, Materia Medica (the last either in this or the third year), Hospital. Third Year: Practice of Medicine, Clinical Surgery, Practical Anatomy, Practical Pharmacy, Clinical Medicine, Pathological Anatomy, Hospital. Fourth Year: Surgery or Clinical Surgery, Midwifery and the Diseases of Women and Children, Practice of Medicine or Clinical Medicine, Medical Jurisprudence, Practical Midwifery, Hospital.

PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

1. All Students who intend becoming Candidates for the Diplomas of the Colleges must have passed the complete Examination in General Education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council at the commencement of their Professional Studies.

2. The subjects of the Preliminary Examination in General Education during the year 1867-68 shall be as follows, namely:—1. English Grammar and Composition, including Meanings and Derivation of Words. 2. Latin: The Fifth Book of Cæsar's Commentaries De Bello Gallico—Horace De Arte Poetica—Exercises in Parsing, and in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic: The Common Rules—Vulgar and Decimal Fractions. 4 and 5. Any two of the following, at the option of the Candidate:—(1) Algebra: To Simple Equations, inclusive; (2) Geometry: Euclid, Books I., II., and III.; (3) Natural Philosophy: Mechanics and Hydrostatics; (4) Greek: Anabasis of Xenophon, Book I.—Lucian, Dialogues of the Dead; (5) French: Voltaire, Histoire de Charles XII; (6) German: The Third Book of Schiller's "Geschichte des dreissigjahrigen Kriegs;" (7) Botany: Vegetable Morphology, Organography, and Physiology—Natural Orders Ranunculaceæ, Papaveraceæ, Caryophyllaceæ, Rosaceæ, and Orchidaceæ; (8) Zoology: General Classification of the Animal Kingdom—Characters and Subdivisions of the Vertebrata—Characters of the Insecta, Crustacea, Cephalopoda, and Gasteropoda. N.B. In Greek, French, and German, parsing of the words in the passages given to be translated will be required.

3. Testimonials of proficiency granted by the national educational bodies recognised by the General Council will be accepted as sufficient evidence of general education, and will exempt from the Preliminary Examination.

4. The Preliminary Examinations shall take place at stated periods, and shall be conducted by a special Board of Examiners in Arts.

5. Candidates, the commencement of whose Professional studies was prior to October 1, 1865, may pass the Preliminary Examination in General Education at any of the periods previous to the first Professional Examination, but are recommended to do so at the earliest possible period. Candidates under this regulation, who have not passed a Preliminary Examination in General Education, will be required to undergo that Examination on the day before the first Professional Examination, and shall pay a fee of £1.

6. Students who intend to undergo the Preliminary Examination shall give in their names, addresses, and places of birth to the officer of either College, not later than three days before the day of examination, and shall pay a fee of 10s., not to be returned in case of rejection, but will be admissible to re-examination without paying another fee.

PROFESSIONAL EXAMINATIONS.

1. Candidates for the double qualification shall be subjected to two Professional Examinations, to be conducted at separate times, partly in writing and partly orally.

2. The first Examination shall embrace Anatomy, Physiology, and Chemistry, and take place not sooner than the end of the Second Winter Session.

3. Opportunities for both Examinations will be presented six times in each year. On each of those occasions the Candidates shall assemble for the purpose of writing answers to the questions proposed. The Oral Examinations will be conducted on the days immediately succeeding.

4. Candidates who desire to pass the first Professional Examination must apply to the Inspector of Certificates on or before the Saturday preceding the day of examination, and must produce tickets, and also certificates of attendance in regard to all those courses of study which have reference to the subjects of that examination. They must also produce a certificate of having passed the Preliminary Examination.

5. The sum of £6 must be paid to the Inspector of Certificates for this examination, not later than 10 A.M. of the day preceding it. This sum will be considered as paid to account of the entire fee of £16 payable for the two Diplomas.

6. In the case of a Candidate being unsuccessful at this examination, £4 will be returned to him; the remaining £2 being retained to meet the expense of examination.

7. The second Examination shall embrace Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of study.

8. Applications for examination must be made to the Inspector of Certificates not later than the Saturday previous to the day of examination.

9. Every Candidate must produce to the Inspector—1st, satisfactory evidence of his having attained the age of 21 years; 2nd, tickets and certificates of his classes; 3rd, a certificate of having passed the first Professional Examination; and 4th, a tabular statement (for which a printed form will be furnished by the Inspector), exhibiting the full amount of his Professional Education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each Session of his Studies. The tabular statement, accurately filled up, must be attested by his signature, and will be preserved by the Colleges as a record.

10. The fee payable for this examination, which shall be £10, must be lodged with the Inspector not later than 10 a.m. of the day preceding the examination day.

11. Unsuccessful Candidates at either the first or second Examination shall be remitted to their studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months.

12. In case of a Candidate being unsuccessful at the second Examination, £8 will be returned to him, the remaining £2 being retained to meet the expense of the Examination.

13. Candidates who have passed the first Professional Examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second Professional Examination on producing certificates of the whole course of study prescribed, and of having passed the Preliminary Examination. If any of the three subjects of the first Examination have been omitted, such Candidates will have to undergo an Examination on the omitted subjects, and none of the subjects set down in section 7 will be omitted at the second Examination, even if some of them should have formed part of the first Examination by another Board. The Fee payable by such Candidates is £16, and unsuccessful Candidates will receive back £14.

14. After November 11, 1867, all Candidates shall be subjected to a Practical Clinical Examination in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the use of the Microscope, Surgical Appliances, Bandages, etc.

15. Candidates desirous of a Special Examination on other days than those fixed by the Colleges must state some sufficient reason for their applications; and, as some days may be inconvenient and even unprofitable days for the Colleges, it is necessary that they should give as early notice and as large a selection of days as possible. Such Candidates will pay an extra Fee of £5, which will not be returned, whatever may be the result of the Examination.

16. No Candidate shall be admissible to Examination who has been rejected by any other Licensing Board within the three months preceding his Examination.

The following will be the periods of examination for the double qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh, for the year 1867-68:—1. Prelimi-

(f) By a regulation of the Privy Council, of date December 1, 1858, no one can be appointed as a contractor for Vaccination under the English Poor law who does not produce a Certificate of Proficiency in Vaccination from a person authorised by the Privy Council to grant the same. A Certificator in Vaccination has been appointed in Edinburgh by the Privy Council.

nary Examinations in General Education: On Saturday, October 26, 1867; on Saturday, November 9, 1867; on Saturday, April 25, 1868; on Saturday, July 25, 1868. II. First Professional Examinations: On Tuesday, October 29, 1867; on Tuesday, January 25, 1868; on Tuesday, April 7, 1868; on Tuesday, May 5, 1868; on Tuesday, July 14, 1868; on Tuesday, July 28, 1868; on Tuesday, October 27, 1868. III. The second Professional Examinations will take place immediately after the conclusion of the first Professional Examinations at each of the above-mentioned periods.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS RELATING TO ADMISSION TO THE FELLOWSHIP.

The Faculty embraces in its Fellowship both Physicians and Surgeons, and Candidates for admission may apply in either capacity, according to their qualifications. The proposal of a Candidate requires to be made at an ordinary meeting by two Fellows, and it shall state the Medical or Surgical qualification (as the case may be) on which he desires admission.

The Fee to be paid by a Fellow is £50. In case of a non-resident, in consideration of his inability to participate in all the privileges of the Fellowship, the Fee is £25, subject to the condition that the full Fee shall be payable should he at any subsequent time come to reside within five miles of the Faculty Hall.

ABSTRACT OF REGULATIONS FOR THE LICENCE, 1865-66.

Course of Study.—(1). Anatomy, two courses, six months each. (2). Practical Anatomy, twelve months. (3). Chemistry, one course, six months. (4). Practical or Analytical Chemistry, one course, three months. (5). Physiology, not less than fifty Lectures. (6). Practice of Medicine, one course, six months. (7). Clinical Medicine, one course, six months. (8). Principles and Practice of Surgery, one course, six months. (9). Clinical Surgery, one course, six months. (10). In addition to the above courses of Surgery and Clinical Surgery, one six months' course of either of these at the option of the student; Materia Medica, one course, three months. (11). Midwifery and the Diseases of Women and Children, one course, three months. (12). Medical Jurisprudence, one course, three months. (13). Practical Midwifery, attendance on at least six cases of labour. (14). Pathological Anatomy, three months' instruction in the post-mortem room of a recognised Hospital. (15). Practical Pharmacy, three months' practical instruction. (16). Hospital and Dispensary Practice, twenty-four months' attendance on the practice of a public General Hospital, containing on the average at least eighty patients.

A Certificate of Proficiency in Vaccination, signed by a Registered Practitioner, will be required of every Candidate. Candidates commencing Professional study after October 1, 1865, must have been engaged in Professional study during four years, which shall include not less than four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School.

(Candidates commencing Professional Study prior to the above date are admitted to Examination after four Winter Sessions' or three Winter and two Summer Sessions' attendance at a regular Medical School.)

Candidates are subjected to two Professional Examinations. The First Examination embraces Anatomy, Physiology, and Chemistry, and cannot be undergone before the end of the Second Winter Session of Study.

The Second Examination embraces all the other subjects of the Curriculum, and cannot be undergone before the termination of the full period of Study.

Intending Candidates for the Second Examination must produce evidence—1st, of being 21 years of age; and 2nd, of having passed the First Examination. They will also present to the Secretary for inspection their Class and Hospital Certificates, and write out a tabulated statement of their whole course of Study, for which the Secretary, on application, will supply Candidates with printed forms.

The Fee for the Diploma is £10—£1 for the First and £6 for the Second Examination.

First Examinations will be held on the second Tuesday of every month. Second Examinations will take place immediately on the termination of the First Examinations. A Candidate, on showing a sufficient reason, may be admitted to Examination, on a day specially arranged, by paying an extra fee of £3.

All applicants for the Licence must have passed a Preliminary Examination before commencing Professional Study, and those commencing Study on or after October 1, 1866, must have their names enrolled in the Students' Register. The Examination shall embrace the following subjects:—1, English; 2, Latin; 3, Arithmetic; 4 and 5, any two of the following, at the option of the Candidate:—(1 Algebra, (2) Geometry, (3) Natural Philosophy, (4) Greek, (5) French, (6) German, (7) Botany, (8) Zoology. Testimonial of proficiency granted by the Bodies specified in the Recommendations of the General Medical Council will exempt from the Preliminary Examination.

DOUBLE QUALIFICATION.

The Faculty of Physicians and Surgeons of Glasgow and the Royal College of Physicians of Edinburgh conjointly grant their Diplomas to Candidates after one series of Examinations before a Board of Examiners in which each Body is represented. The fee for the two Diplomas granted conjointly is £16—£6 for the First and £10 for the Second Examination.

For further information application may be made to the Secretary of the Faculty.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following Bodies grant one or more Degrees or Licences to practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the Degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.C. or Master of Surgery; also Licences in Medicine (L.M.) and Surgery (L.S.). The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway; this University confers the Degrees of M.D. and M.Ch. The King and Queen's College of Physicians in Ireland, granting a Licence and Fellowship. This Institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland, which grants Letters Testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may obtain from their respective Colleges a Diploma in Midwifery. The Rotunda and Coombe Lying-in Hospitals grant Diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland also confer a Diploma.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

SCHOOL OF PHYSIC.

The School of Physic in the University of Dublin is under the joint control of the Board of Trinity College and of the President and Fellows of the College of Physicians.

MATRICULATION.

All students of the School of Physic must be matriculated by the Senior Lecturer of Trinity College, for which a fee of five shillings is payable. No student can be admitted for the Winter Courses after November 25.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The Act 21 and 22 Vict. c. 99, recognises, as qualifications for Medical and Surgical Practitioners, the Degrees and Licences in Medicine and Surgery granted by the University. The Degrees are—1. Bachelor of Medicine. 2. Doctor of Medicine. 3. Master in Surgery.

UNIVERSITY DEGREES.

1. *Bachelor in Medicine.*—A Candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same Commencement as that at which he receives his Degree of B.A., or at any subsequent Commencement, provided the requisite Medical education shall have been completed. The Medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following Courses of Lectures, viz.:—Courses of six months' duration (November to April)—Anatomy, Practical Anatomy, with Dissections, Surgery, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine Practice of Medicine, Midwifery. Courses of three months' duration (April to June)—Botany, Practical Chemistry, Medical Jurisprudence.

Hospital Attendance.—1. Nine months' attendance on the Clinical Lectures of Sir Patrick Dun's Hospital. 2. Nine

months' additional attendance on the Clinical Lectures of any Hospital recognised by the Board. 3. Instruction in Practical Midwifery, including not less than six deliveries.

Any of the above-named six or three months' Courses may be attended at any Medical School in Dublin, recognised by the Provost and Senior Fellows (and three of them, at the discretion of the Candidate, may be attended in the University of Edinburgh), provided the Candidate have kept an *Annus Medicus* in the School of Physic.

The Schools recognised are—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichael School. 3. The School of Dr. Steeven's Hospital. 4. The St. Peter-street School. 5. The School of the Catholic University. The recognition of these Schools is conditional on their students being furnished with *bona fide* certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of Lectures in each Course.

An *Annus Medicus*, or a year's attendance in the School of Physic, may be kept in three ways—1. By attending at least two, or not more than three, of the foregoing Courses, which are of six months' duration. 2. By attending one course of six months' and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital and Clinical Lectures; together with one course of six months, or, in lieu thereof, two courses of three months' duration.

The Fee for nine months' attendance at Sir Patrick Dun's Hospital is twelve guineas. The Fee for each Course of Lectures is three guineas. The Fee for the *Liceat ad Examinandum* is £5. The Fee for the Degree of M.B. is £11.

2. *Doctor in Medicine.*—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the Degree of M.B. for three years, and must perform exercises for the Degree before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of Fees for this Degree, £13.

3. *Master in Surgery.*—The Degree of Master in Surgery can only be obtained by Students who are Bachelors of Arts, and who have completed the Professional Curriculum and passed the Examinations required. The Curriculum extends over a period of four years, and comprises attendance upon the following Courses of Lectures—viz.: Anatomy, one Course; Demonstrations, three Courses; Dissections, three Courses; Theory and Practice of Surgery, two Courses; Practice of Medicine, one Course; Chemistry, one Course; Materia Medica, one Course; Midwifery, one Course; Practical Chemistry, one Course; Botany, one Course; Medical Jurisprudence, one Course.

Hospital Attendance.—Three Sessions, each of nine consecutive months' duration, in any recognised Hospital, together with attendance on the Clinical Lectures on Medicine and Surgery there delivered. Any of the above-named Courses may be attended at any of the Medical Schools of Dublin recognised by the Board, provided the Candidate has kept an *Annus Medicus* in the School of Physic. The following Hospitals are recognised by the Board:—1. Sir Patrick Dun's School of Physic Hospital; 2, Meath Hospital; 3, Richmond, Whitworth, and Hardwicke Hospitals; 4, Dr. Steeven's Hospital; 5, Jervis-street Infirmary; 6, City of Dublin Hospital; 7, Mercer's Hospital; 8, St. Vincent's Hospital; 9, Adelaide Hospital; 10, Mater Misericordiæ Hospital. Of the Courses of Lectures which are of six months' duration, not more than three can be attended during any one Session. Candidates will also be required to perform Surgical operations on the dead subject. Candidates for the Degree of Master in Surgery, who have already passed the Examination for the Degree of Bachelor in Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5. Fee for the Degree of M.Ch., £11.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed four years in Medical Studies. Candidates for the Licences in Medicine or Surgery must pass the following Examination in Arts, unless they be Students in the Senior Freshman or some higher class:—Homer's Iliad, Books I., II. (omitting Catalogue of ships), III.; Lucian's Dialogues (Walker's edition); Xenophon's Anabasis, Books I., II., III.; Virgil, Æneid, Books I., II, III.; Sallust; Horace, Satires; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III. In case the Student should wish to continue the Undergraduate Course in Arts, with a view to the Degree of B.A., his answering in the above will be reckoned as equivalent to the Entrance Examination, and the Hilary Examination of the Junior Freshman year. Students who have passed the foregoing Examination will be required to pay the admission fee of £15.

1 *Licentiate in Medicine.*—The Medical Course and Examination necessary for the Licence in Medicine is the same as for the Degree of M.B, with the exception that any general Hospital approved by the Board of Trinity College may be substituted for Sir Patrick Dun's. Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, on passing the foregoing Arts Examination, will be admitted to Examination for the Licence in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Medicine, £5.

2. *Licentiate in Surgery.*—The Surgical Course and Examination necessary for the Licence in Surgery is the same as for the Degree of Master in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Surgery, £5.

PREVIOUS MEDICAL EXAMINATION.

Candidates for Degrees and Licences in Medicine and Surgery are expected to pass two Examinations, the first of which will be held at the close of the second year of Medical Study, and the other, as heretofore, after the full Curriculum has been completed. The subjects required at the Previous Examination are the following:—Descriptive Anatomy, Botany, Materia Medica and Pharmacy, Chemistry, Theoretical and Practical, with Chemical Physics.

At a Board meeting, held 17th June, 1863, it was resolved:—"Students who shall have passed the Previous Examination, and whose answering in any of the following subjects, viz., Botany, Chemistry, Descriptive Anatomy, and Materia Medica, shall have satisfied the respective Examiners, shall be exempted from answering in such subject or subjects at the final Examination for Medical Degrees and Licences."

MEDICAL SCHOLARSHIPS.

Two Medical Scholarships will be given annually, tenable for two years, with a salary of £20 per annum, on the condition of the successful Candidates proceeding regularly for two years with the Medical Course in the University.

MEDICAL SCHOOL EXHIBITIONS.

The Professors of the School of Physic give three Exhibitions annually—two Senior Exhibitions, value respectively £15 and £10, to be competed for by Students who have attended the School of Physic for three years; and a Junior Exhibition, value £15, to Students who have attended two years.

Total Expense of obtaining the Degrees of Bachelor in Medicine and Master in Surgery.—I. Lectures: 1. Anatomy (one Course), £3 3s. 2. Practical Anatomy (three Courses), £9 9s. 3. Dissections (three Courses), £12 12s. 4. Surgery (two Courses), £4 4s. 5. Practice of Medicine, £3 3s. 6. Chemistry (two Courses), £4 4s. 7. Materia Medica and Pharmacy, £3 3s. 8. Midwifery, £3 3s. 9. Botany. 10. Medical Jurisprudence, £3 3s. 11. Institutes of Medicine, £3 3s.—II. Hospitals: 1. Sir P. Dun's (first year), £12 12s. 2. Second and third years' attendance, £15 15s.—III. Degrees: 1. *Liceat ad Examinandum in Medicina*, £5. 2. *Liceat ad Examinandum in Chirurgia*, £5. 3. M.B. Degree, £11. 4. M. Ch. Degree, £11.—Total expenses: 1. Lectures, £49 7s. 2. Hospitals, £28 7s. 3. Degrees, £32. 4. Private Tuition, £20. Total, £129 14s. N.B.—As no Degrees in Medicine or Surgery are conferred except upon Graduates in Arts, the expense of the Degree of Bachelor in Arts, amounting altogether to £82 4s., should be added to the foregoing, making the total cost something over £200.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the Degrees of Doctor in Medicine and Master in Surgery, includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway, each of which possesses a Faculty of Medicine. The curriculum of Medical Study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above Courses of Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option

of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the Colleges of the Queen's University Lectures on Experimental Physics, and on one Modern Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the Practice during six months of a recognised Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein; during the second period at a recognised Midwifery Hospital, with the Clinical Lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour, under the superintendence of the Medical officer of any Hospital or Dispensary where cases of labour are treated; and eighteen months' Practice of a recognised Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. There are two University Examinations: one comprising the subjects of study in the first period, the other the subjects of the second period. The University Examinations are held twice in each year, in June and September. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RESPECTING THE EDUCATION, EXAMINATION, AND ADMISSION OF CANDIDATES FOR THE LICENTIATESHIP IN MEDICINE.

Candidates for the Licentiateship in Medicine are required to give proof of their having attained the age of 21 years, of having been engaged during a period of four years in the study of Medicine at a School or Schools recognised by the College, and shall also produce evidence of having studied the following subjects, viz.:—Anatomy, Physiology, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica, and Botany, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery, and of having attended a Medico-Chirurgical Hospital, in which regular Courses of Clinical Lectures are delivered, together with Clinical Instruction for twenty-seven months, or such Hospital for eighteen months, with nine months' attendance on a Medical Hospital, and similar Courses of Clinical Lectures and Clinical Instruction, the attendance in each case being for not more than nine months in any year—namely, for six winter and three summer months, and the attendance on a Medico-Chirurgical Hospital and Medical Hospital not being taken out in the same year, and of having attended Practical Midwifery.

Candidates who are not personally known to any Fellow of the College are required to transmit testimonials of character from registered Physicians or Surgeons.

The Examination is divided into two parts:—

First Part.—Anatomy, Physiology, Botany, and Chemistry.

Second Part.—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery.

Students may be examined in the subjects of the first part at the termination of the first period of study, or in all the subjects of their education on the completion of their Medical studies.

Candidates are required to have passed an Examination in General Education held by some of the Qualifying Bodies, or by some one of the National Education Bodies approved by the College.

Students in Arts of one year's standing, of any University in the United Kingdom, requiring Examinations in the first year; Graduates or Licentiates in Medicine or Surgery of any University or College of Great Britain or Ireland, will be exempted from the Preliminary Examination.

The above regulations respecting Preliminary Examination will not apply to Candidates who commenced their Professional education previously to January 1, 1861.

Candidates qualified as follows are required to undergo the second part of the Professional Examination only—viz.:—1. Graduates in Medicine of a University in the United Kingdom, or of any foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal Colleges of Physicians of London or Edinburgh. 3. Graduates or Licentiates in Surgery.

Licence in Midwifery. Members of the College who may desire to obtain the Licence in Midwifery will be required to undergo a special Examination.

Candidates for the Licence in Midwifery, who are not Members of the College, will be admitted to examination for such Licence in Midwifery, on the following qualifications:—The Degree or Licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom, together with a certificate of having attended a six months' Course of Lectures on Midwifery, with the attendance for six months at a recognised Lying-in-Hospital, or of having attended Practical Midwifery for six months.

Fees for Licence and examinations.—The fee for the Licence is £15 15s., which may be divided as follows, viz.:—For Examination at the termination of the first period of study, £5 5s. The Final Examination for the Licence, £10 10s. Fee for the Midwifery Diploma, £3 3s. Fee for the Licences in Medicine and Midwifery, if taken out at the same time, £16.

The Admission fee, with the exception of two guineas deducted to meet the expense of Examination, will be returned to any Candidate who may be rejected.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

I.—REGISTRATION OF PUPILS.

A Fee of £5 5s. is required to be paid before registration.

II.—QUALIFICATIONS OF CANDIDATES FOR LETTERS TESTIMONIAL (AS LICENTIATES).

Every Registered Pupil shall be admitted to an Examination for Letters Testimonial if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged a sum of Twenty Guineas in the Bank of Ireland to the credit of the President, and for the use of the College.

b. A Certificate that he has passed an Examination as to his acquaintance with the Greek and Latin languages.

c. Certificates showing that he has been engaged in the study of his Profession for not less than four years.

d. Certificates of attendance on an Hospital recognised by the Council, where Clinical Instruction is given, during three years.

e. Certificates of attendance on three Courses of Lectures on Anatomy and Physiology, three Courses of Lectures on the Theory and Practice of Surgery, and of the performance of three Courses of Dissections accompanied by Demonstrations; also Certificates of attendance on two Courses of Lectures on Chemistry, or one Course of Lectures on General and one on Practical Chemistry; one Course of Lectures on Materia Medica, one Course of Lectures on the Practice of Medicine, one Course of Lectures on Midwifery, one Course of Lectures on Medical Jurisprudence, and one Course of Lectures on Botany.

QUARTERLY EXAMINATIONS.

Examinations are held quarterly, on the second Tuesday in February, May, August, and November, at which Candidates shall be divided into two Classes—Junior and Senior.

The Junior Class is examined in Anatomy, Physiology, and Materia Medica. The Fee for this Examination is Five Guineas.

The Senior Class is examined in Surgery, Operative Surgery, the Practice of Medicine, and form of Prescription. Fee £15 15s.; total £26 15s.

Every Candidate rejected at the Quarterly Examinations shall be required to pay to the College the sum of Two Guineas on applying for re-examination, so as to recompense the College for the necessary expense.

III.—QUALIFICATIONS OF CANDIDATES FOR THE FELLOWSHIP.

Every registered Pupil or Licentiate shall be admitted to Examination for the Fellowship if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged in the Bank of Ireland, for the use of the College, if he be a Licentiate, the sum of Ten Guineas, or Twenty-five in case he be a Registered Pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he shall lodge, if he is a Licentiate, twenty guineas; or if he is a Registered Pupil, thirty-five guineas. Fellows entering on the country list, who may subsequently settle as Practitioners in Dublin, or within ten miles thereof, shall pay ten guineas to the College.

b. A certificate that he is twenty-five years of age.

c. A certificate that he is a Bachelor of Arts of some University, or that he has been examined in such manner as the Council may from time to time direct, with a view to ascertain that he has obtained a liberal preliminary education.

d. A certificate, signed by two or more Fellows of the College, of good general conduct during his Professional education.

e. Certificates that he has been engaged in the acquisition of Professional knowledge for a period of not less than six years, during three of which he must have studied in one or more of the Schools and Hospitals recognised by the Council. He may have studied for the other three years in any School or Schools of the United Kingdom which shall be approved by the Council, or in any foreign school of repute. It is also required that the Candidate shall have had opportunities of practical instruction as House-Surgeon or Dresser in a recognised Hospital.

f. Certificates of attendance on the several courses of Lectures required to be attended by candidates for Letters Testimonial, together with one course of Lectures on Comparative Anatomy, one course of Lectures on Botany, and one on Natural Philosophy.

g. A thesis on some Medical subject or Clinical reports, with observations of six or more Medical or Surgical cases taken by himself.

h. Candidates of the required age, who shall have taken the degree of Bachelor of Arts in a British or Irish University, and have complied with the foregoing regulations in other respects, will be admitted to examination at the end of five years of Professional study, of which three years must have been passed in one or more of the recognised Schools or Hospitals.

i. Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their diploma, be admitted to the examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practice of their profession.

The College also gives a special Examination and Diploma in Midwifery. Fellows and Licentiates are admitted to this Examination.

Besides the Quarterly Examinations, Examinations of Candidates both for Letters Testimonial and for the Fellowship are held from time to time, as the Council may direct.

PRELIMINARY EXAMINATION, REGISTRATION, AND MATRICULATION.

Registered Pupils are admitted to answer the Preliminary Examination at any period previous to the final Examination for Letters Testimonial.

Students who are not Registered Pupils are also admitted to answer the Preliminary Examination upon payment of a Matriculation Fee of Ten Shillings. Candidates may select one Greek and one Latin work from the following Course:—"In Greek: The Gospel of St. John, the Menippus of Lucian, or the First Book of Xenophon's Anabasis. In Latin: The First and Second Books of the Æneid of Virgil, the Jugurthine War of Sallust, or the Third Book of Livy. Candidates will also be required to write English correctly from Dictation, and to give evidence of proficiency in Arithmetic."

THE APOTHECARIES' HALL OF IRELAND.

BY-LAWS AND REGULATIONS REGARDING THE LICENCE TO PRACTISE AS AN APOTHECARY.

Every Candidate is required to undergo a Preliminary and a Professional Examination.

THE PRELIMINARY EDUCATION AND EXAMINATION include—1. English; 2 Mathematics; 3. French; 4. Latin; 5. Greek; 6. Natural Philosophy; 7. Natural History.

A Preliminary Examination will be held at the Hall four times in the year, viz., on the third Friday in the months of January, April, July, and October, at the hour of 2 p.m.

Unsuccessful Candidates will not be re-admitted to Examination until after the lapse of six months

THE PROFESSIONAL EDUCATION AND EXAMINATION.

Every Candidate for the Licence to practise must produce Certificates to the following effect:—

1. Of having passed an Examination in Arts previously to entering on Professional study.

2. Of being registered as a Student in Medicine by one of the Bodies named in Schedule (A) of the Medical Act.

3. Of being at least twenty-one years of age, and of good moral character.

4. Of Apprenticeship to a qualified Apothecary, or of having been engaged at Practical Pharmacy with an Apothecary for a period of three years subsequent to having passed the Examination in Arts.

5. Of having spent four years in Professional study.

6. Of having attended the following Courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during two winter sessions; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Materia Medica and Therapeutics, during one summer session; Practical Chemistry (in a recognised Laboratory), during three months; Principles and Practice of Medicine, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (attendance upon twenty cases); Surgery, during one winter session; Medical Jurisprudence, during one summer session; Instruction in the Practice of Vaccination.

7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session.

The Examination for the Licence to practise is divided into two parts.

The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy.

The second—Medicine, Surgery (Principles of), Pathology, Midwifery, Forensic Medicine, and Hygiene.

The First Part may be undergone at the close of the second winter session, and after the Candidate has attended the Courses upon the several subjects named for this Examination, and the second not before the completion of the fourth winter session.

The Professional Examination will be held upon the first two Fridays in each month, with the exception of the month of August.

Candidates for the Licence must lodge their testimonials and enrol their names and address with the Clerk at the Hall, in Dublin, a week prior to the day of Examination.

A rejected Candidate cannot be re-admitted to Examination until after the expiration of six months.

Candidates for the Certificate of Assistant to an Apothecary, in Compounding and Dispensing Medicine, must have completed at least three years of his Apprenticeship with an Apothecary, or have a Certificate from an Apothecary of having been engaged at Practical Pharmacy for a period of three years, together with a Certificate of good moral character.

The Examination of the intended Assistant will be restricted to the British Pharmacopœia and to Pharmacy, scientific and practical, including the history and character of Medicines, their preparation, combination, and doses, and the translation of Latin Prescriptions.

An Examination of Apprentices is held at the Hall in the first week in May annually, upon some subject of Medical Chemistry, which is announced by the Council of the Hall at the commencement of the previous Winter Session, and a Prize of Five Guineas is awarded to the successful competitor.

In reference to the foregoing Education and Examinations it is required by the Council of the Hall that every Candidate for the Preliminary Examination, or Certificate of Apprentice, shall have read all the Books in the prescribed Course, and shall pass such Examination as will satisfactorily test his grammatical Knowledge of the Languages, his acquaintance with the working of the several problems and calculations, and his familiarity with the leading events of English History, and with the elements of Physical and Natural Science.

In each department numerical values will be attached to the answers, and only Candidates who attain a certain proficiency will obtain "the Certificate in Arts" or "Certificate of Apprentice."

This Examination will be conducted by printed papers, and the answers will be required in writing.

THE HOSPITAL FOR SICK CHILDREN, 48 AND 49, GREAT ORMOND-STREET, W.C.—Physicians, Dr. West and Dr. Hillier. Assistant Physicians, Dr. Buchanan, Dr. Hutchinson, Dr. Sidney Ringer, Dr. Samuel Gee. Surgeon, Mr. Timothy Holmes. Assistant-surgeon, Mr. Thomas Smith. Surgeon-Dentist, Mr. Samuel Cartwright. 75 beds. In-patients—1866, 786; Out-patients—attending, 11,58 . Clinical Lectures on cases attending or in the Hospital are delivered by the Medical Officers before their visit to the patients during the Winter and Summer Sessions. The Lectures are free to Practitioners on presenting their cards, and to Students after their first year by tickets, to be obtained on application on, by letter, to the Secretary, at the Hospital. The Practice of the Hospital, in both In- and Out-patient Departments, is open at 9 every morning. Fee for Six Months' Attendance, £3 3s.; Perpetual, £5 5s.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

In order to confine the whole of this week's Number to information specially important to Students, we are compelled to defer answers to several Correspondents, together with all notices of passing events, until next week.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 14, 1867.

ADDRESS TO STUDENTS.

It is again our privilege to offer a few words of welcome and counsel to those who, at this season, are about to enrol themselves in the ranks of the Medical Profession. We shall have nothing that is new or striking to say. The good advice that we have to give may have been given over and over again, and may have been over and over again disregarded. The secret of success, too, in any walk of life is no novelty, but is as old as the world itself, and in pointing it out we shall be simply stating a well-known and admitted fact, almost approaching the certainty of a law.

Yet there is a duty which experience owes to inexperience—the duty of counselling, warning, and directing. It is a kind of pilot's work. We who have sounded the bottom, who know the rocks and shallows and places of danger, undertake to make a chart for those who have to follow the tract over which we have already journeyed, so that the young and inexperienced, having the dangerous places pointed out to them, may avoid them, and not make fatal shipwreck. And there is a duty which inexperience owes to experience. It is to listen carefully and thoughtfully to the advice that the latter can always afford the former.

The choice of a profession, which you have had to make, is no light matter. It will give a character and colour to the whole of your after-life. It will do much towards forming your life's history, it will impress on it a distinct individuality, and will impart to it the degree and amount of influence which it is to exercise over the lives of others. Neither is it a light matter, when the choice of a profession is made, to determine the best mode of giving effect to that choice and of entering upon the work which it involves.

You have chosen the Profession of Medicine—a profession which is, perhaps, of all others, the most distinctive and characteristic, and which requires for its successful pursuit personal qualifications of a high order—energy, patience, self-command, acuteness of intellect, accuracy of observation, steadiness of purpose, and an unswerving honesty of intention. And if you have selected the Profession of Medicine from a *love* of it, you have done well. In no other calling is a real *love* of the work so necessary to complete success as it is in ours.

To you then, the young Students in Medicine, who, having chosen this Profession because your natural inclination draws you towards it, have determined to do your very best to qualify yourself for the work which belongs to it, we give a hearty welcome. There is room, abundance of room for you. In any part of the world you may find work, remunerative work. It is only necessary that you should possess a respectable knowledge of your Profession, and preserve a decent character, and you may always be sure of obtaining a competency.

Having decided to adopt the Medical Profession as your calling in life, your first step will be to select a Medical School, where you may follow the course of study prescribed for you by the Examining Boards.

Perhaps you have already done this. If not, we must confess that, under the existing system, it is difficult for us to offer you any advice in this matter. We regret even that the adoption of a Medical School should be at all a matter of choice. We had much rather that there were but two or three authoritative centralised schools, amongst which the Students in Medicine might be conveniently divided. But, as it is, you have to make a selection from amongst a number of different schools. As long as this system of rivalry and competition in Medical education exists, it would be an invidious task for us to assume the responsibility of recommending any particular school or schools. Yet there can be no doubt that the choice of a school does, in many instances, influence in a remarkable degree the after-career of the Medical Student and it can scarcely be referred to the influence of mere chance that we find the pupils of certain schools becoming, in after-life, distinguished in much larger proportion than those of other schools.

We would therefore say to those whose only wish is to enter hereafter the mere rank and file of our Profession—to those who merely wish to get through the curriculum set down for them in the cheapest and most expeditious manner—to you it is of no great importance what Medical School you enter. But to those who have higher aims and a more ambitious purpose, we say, avoid inferior Schools; select a School which has indicated its power of educating men for the foremost ranks of the Profession—a School where you may find models amongst your teachers, upon which you may strive to form your own Professional character. The force of imitation is strong in youthful minds; it is therefore a most desirable thing that those who have the training of such minds should be worthy of imitation.

Especially select a School where teaching is carried on in earnest, where no slovenly method of lecturing or of attending lectures is tolerated, but where the work of Medical education is made a serious business, and where regular and punctual attendance in all the classes is insisted upon. There are Schools in which such a system is steadily enforced, and we regret to say there are others where matters are conducted in a far different manner. Above all things, we say, seek a School where the system of *demonstrative* and *tutorial* instruction is fully developed, in addition to the mere formal professorial courses, and where frequent class examinations are in use to test the progress of the Students.

Having made choice of your Medical School, the next thing for you to do is to get, at once, well into your work. Not with that demonstrative spurt which leads you, for the first ten days of the Session, to crowd the front benches of the lecture room, to cram your note-book with notes taken with the most remarkable energy and indiscriminateness, to weary the Professor with the wildest and most mal-apropos questions, and then suddenly to collapse. The front benches of the lecture-room know you no more. The note-book too rapidly filled is never replaced. The lecturer misses the shower of questions which used to follow every lecture. The spurt is over, and a languid inattentiveness succeeds a too demonstrative attention. What lecturer is not familiar with this type of student? We beg you, then, to avoid this system of making all the running at starting; it is always the sign of a sudden and ignominious breakdown. But settle down into work leisurely and with a steady purpose. Get a sound idea of the work you have to do, and a broad view of the country you have to become familiar with.

There is no single thing of such paramount importance to the Medical Student of the present day as that he should make good use of his *first* year. The first year lost is never thoroughly retrieved. Each succeeding year brings additional and fresh subjects of study, which presume a well-spent first year; and the student who has, too late, discovered

this necessity of working, after an idle first year, might as well begin again, enrol himself again in the list of freshmen, so useless is it to attempt, under such circumstances, to grapple with the accumulated difficulties which surround him.

Examinations, too, are not now what they used to be, and Examining Boards are not now so indulgent as in days gone by. The mere crammer's office and method are rapidly becoming of little use, and as the art of examining becomes better understood they will become altogether obsolete. No hasty superficial cram made up of stereotyped answers to anticipated questions, and instructions in the crotchets of particular examiners, will now stand the idle student in good stead. With combined written and *viva voce* examinations it is next to impossible to conceal from the expert examiner the ignorance resulting from misspent time. The style of the written answer shows the weak point, and the skilful probing of the subsequent *viva voce* lays open the real defect.

If, therefore, you would pass the required examinations in the order laid down for you, you must guard yourselves against that great and prevailing evil—the very plague of Medical students—an idle *first* year. Doubtless one cause of the idleness of the first year is the discouragement which many men of only moderate ability find in the amount of work they are expected to get through. They find three such subjects as Anatomy, Physiology, and Chemistry, combined with Dissection and Hospital Practice, more than their limited powers will enable them to follow at one and the same time. The lecturers get rapidly ahead of them, and they find themselves in a hopeless whirl of useless and unfruitful attempts to follow and understand. To such we say do not be discouraged. This is not your fault, but the fault of our system of teaching. Betake yourself to your College Tutor; get him to set down some system of work for you. Don't trouble yourself about keeping pace with your lecturers, but learn steadily a little something every day, and you will be agreeably surprised at the end of the Session to find how much you have acquired. Indeed, to all students, dull or clever, we would say don't *hurry*; don't be betrayed into the too common temptation of modern times—to be *in a hurry*, to get knowledge rapidly. Rapid learning is absolutely incompatible with *thoroughness*, and if there is one thing more than another to be learnt from the histories of the lives of learned and successful men, it is that they have always carried into their work the principle of *thoroughness*. A little knowledge daily acquired *thoroughly*, made your own for ever, is the true and only principle of successful labour. To work in this way may take you thrice the amount of time it may cost another man to acquire *apparently* the same amount of information. But yours is the true economy. Facts or principles, to become the lasting property of the mind, must be worked in and in by repeated kneading and pressing. They then become a part of yourselves.

It may seem strange that we should take so much pains to inculcate two such obvious recommendations as (1) that you should not waste your *first* year, and (2) that you should adopt the principle of *thoroughness* in your work; and yet we have learnt, from a considerable experience of Medical Students, that these are the two things that bring most men to grief. An idle first year has been the ruin of many otherwise promising young men. Want of *thoroughness* in their work is the bane of all but a very few. The great fault of the prize system—while we admit that there is much to be said in its favour—is that it leads to hasty work. The subject is, in almost every instance, too large to be worked at in the *thorough* way which we have already stated to be the only true principle of success, and the would-be prizeman is almost sure to be broad and shallow rather than deep. He reads for the purpose of display, not for the single motive of gaining knowledge.

With regard to examinations, it will occasionally happen that, after all your steady work and honest application, you will find yourselves unsuccessful. We have had several painful examples of this during the past year. But do not let this discourage you. There is this consolation for you—it has not been your fault. In many cases, Examiners have yet to learn the art of examining. We have had much experience lately of the fallibility of Examiners. Time will mend all this. Examiners should remember, when they have to deal with subjects so extensive as those which the Students in Medicine have to learn in so limited a period, that it is not their duty to search out a point here and there of which the candidate may be ignorant, but rather to get a general idea of what he *has* learnt and *does* know. They will often find that some of the best and most earnest workers may be quite ignorant of one or two subjects which they have not had time to work at in their style of working. An Examiner who knows his work, who has had experience of Students, will not overlook this.

It is a very excellent plan to limit and define accurately the amount of work that you may fairly be expected to do, the amount of information you may reasonably be expected to acquire in your first year. In short, it is a good thing to have your work cut out for you. With this object in view, we proceed to point out the task that you should set yourselves in your first winter. In Anatomy confine yourselves to the study of the bones, muscles, ligaments, and the principal viscera of the abdomen and thorax. In Physiology the anatomy of the tissues, the functions of locomotion, digestion, absorption, and circulation will be enough for your first year. Reserve the remainder of this subject for the second winter. In Chemistry the study of the non-metallic elements and the common principles of chemical philosophy is as much as can be expected of the student who has not previously had any introduction to the study of this science.

This, then, is the work you should set yourself for the first year. Do this well, and you will find the work of succeeding years immensely lightened.

As to Hospital work, we are inclined to discourage it altogether in the first winter. It is absurd to suppose that the mere beginner can follow with advantage the teaching of the Physicians and Surgeons of the Hospitals. He must undergo a preparation. He must be, in a certain limited sense, an anatomist, a physiologist, and a chemist, before he can read, with intelligence, the signs of disease, or understand the language in which disease is described. Hospital attendance is too often put forward as an excuse for idleness. The steps and lobby of the Hospital form frequently the rendezvous of the idle, and to them the Hospital becomes but a gossiping, time-killing place. If you follow properly the studies set down for your first winter, you will have but little time for Hospital work. If, however, you come to your Medical School, as some do, with a certain amount of preparation, and you find you have some time to devote to practical work, go to the out-patient department, and don't wander from room to room, as is too much the custom of young students, but remain in one room; and, although the first half-dozen cases that you see may be uninteresting and uninstructive, the next case may be one that is well worth waiting for, whereas, if you ramble from room to room, you will most probably miss the best cases, and learn nothing.

As to the studies of the following years, we are quite satisfied that after a well-spent first year you will not be found wanting in effort and application in your second, third, and fourth years. One piece of advice we earnestly press on you, and that is, do not be induced by any apparent temporary advantage to cut short your period of study. *Four* years is, indeed, little enough to learn a profession like that of Medicine, and it will not bear curtailing. The last two or three years should be spent chiefly in the wards of your Hospital. We would urge you also not to be apathetic in the matter of clinical teaching. Do not neglect opportunities which may

never be yours again. In some Schools an early morning clinical visit and lecture are given. We advise you to attend regularly these visits and lectures. The morning is an excellent time for this kind of work, much to be preferred to the mid-day lesson, when the pupils are often tired and the teacher is hurried.

We would venture in this place to say a few words in favour of the study of therapeutics—the study of the influence of medicines on the human body in health and disease. It is a study that has been greatly neglected in this country of late years; it is a study which is practically of the very highest importance, and we earnestly counsel you to follow, by preference, the practice of those Physicians who you find make some attempt to teach therapeutics at the bedside. Just one or two remarks with regard to work in the dissecting-room. As a rule, we think dissections are generally too much hurried. This is doubtless partly due to the difficulty of keeping the subjects for a sufficiently long time in a state fit for dissection. But reports reach us from the Continent of discoveries by means of which dead bodies may be prepared for dissection so as to keep free from decomposition for an indefinite period. We earnestly hope that this may be true, and that something may be done in our own dissecting-rooms to make the work of dissection more agreeable and more wholesome, and that with this every effort will be made to put down hurried and slovenly dissecting. We would recommend you to endeavour to dissect *well* rather than *much*. See, handle, observe. Invite a fellow-student to work with you, and do you work with him. You will each of you, in this case, need only half the number of parts you would otherwise require, and you will learn them better, provided always you have selected your colleague wisely.

Touching reading and note-taking, don't delude yourselves into calculating the amount of work you are doing by the number of hours or the number of pages you read. You may read for many hours a day, you may read many pages daily, and yet you may not be really working. Set yourselves each day a subject or portion of a subject to learn and master; and, however small that portion may be, if, when the day is done, you have really learnt thoroughly the task you set yourselves to perform, you have done better, much better, than those students who are only anxious to get over a great number of pages, or to say that they have been reading for a great many hours.

We have often been asked—how many hours a day ought a Medical student to be expected to work? We think that the man who works for *four* hours daily as an average, in addition to the time he is attending lectures or dissections, works to the best purpose. It may be necessary to work longer when the end of a session or an examination is in view; but for regular steady reading we think four hours a day enough. In addition to this, a few hours a week should be devoted to general reading—we mean, reading that is not strictly Professional. This is a more important point than may at first sight be apparent; but it is too often charged against our Profession that its members are uncultivated in polite literature. It is your duty to endeavour to prove that this charge is not true.

With regard to note-taking, the only lectures of which you may profitably take notes, in your first year, are those on Physiology. This is a science which is constantly shifting its ground, and constantly receiving elucidation from new discoveries and new experiments; it will be well, therefore, that you should take careful notes of the lectures of your Professor of Physiology, whose business it will be to keep you *au courant* with the latest discoveries in physiological science. In anatomy and chemistry profuse note-taking will be of little use.

A very important element in successful study is a methodical arrangement of your time. The greatest of German poets has very truly said—

"Method teaches time to win."

Let every hour have its previously allotted task. It has often been remarked that those men who do the greatest amount of work always appear to have the most leisure, and that those who appear always busy—always in a hurry—are never remarkable for the labour they get through. This is doubtless due to method. Let it then be one of your first efforts to work methodically.

In your reading you will find it well to *write* much. Make careful abstracts of the chief points which have to be remembered. Make them as much as possible in your own words. This practice, besides giving precision to your knowledge, will train you to a concise method of answering questions, which will be of infinite value to you when the day of examination draws nigh.

The choice of text-books will depend upon the School to which you belong. One book, however, we may be permitted to recommend to you as to our mind the type of what an elementary book on a scientific subject ought to be; we allude to "Huxley's Lessons in Elementary Physiology." You will be surprised at the amount of sound physiological teaching which has been compressed into a neat little volume of 300 pages.

A word or two as to your general demeanour, and we have done. Whatever degrees, qualifications, or honours you may desire or aim at, strive, above all other things, to deserve the title of *gentlemen*. Avoid snobbishness in your dress, your manners, your language. We often hear complaints of the social position occupied by Medical men. If we have anything to complain of on this score, it is in almost every case our own fault. The public may not be able to judge correctly of our scientific attainments or of our practical skill, but it is very quick-sighted in distinguishing a gentleman from a snob. It is for you Medical Students to show the world that our ranks are recruited from gentlemen. Unhappily, soon after the opening of the last Medical year scenes and events occurred which brought down much public censure and odium on the class of Medical Students. Some of these censures may have been undeserved, but there is too much reason to believe that a great part of them were well merited. Let us hope that the past year has seen the last of these unseemly manifestations, so damaging to our common Profession, so injurious to the character of the whole body of Medical Students. Let us bury for ever in the past the traditional Medical Student, with his slang talk, his vulgar dress, his boisterous manners, and disorderly conduct. We say again, strive to be, and appear, *gentlemen*. Have some self-respect; guard the honour of the Profession which you have voluntarily adopted.

"This above all—To thine own self be true;
And it must follow, as the night the day,
Thou canst not then be false to any man."

TABLE OF FEES CHARGED IN THE MEDICAL SCHOOLS OF ENGLAND

FOR ALL LECTURES AND HOSPITAL PRACTICE REQUIRED FOR THE LICENTIATE EXAMINATIONS OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE LONDON SOCIETY OF APOTHECARIES, AND FOR THE MEMBERSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

London.	
St. Bartholomew's	£99 15 0
Charing-cross Hospital	72 9 0
St. George's Hospital	94 10 0
Guy's Hospital	90 0 0
King's College	99 6 6
London Hospital	84 4 0
St. Mary's Hospital (in one sum)	84 4 0
,, ,, or (in instalments)	89 5 0
Middlesex Hospital	90 0 0
St. Thomas's Hospital	90 0 0
University College	93 3 0
Westminster Hospital	78 15 0
The Provinces.	
Birmingham—Queen's College and Hospital	£63 0 0
Birmingham—Sydenham College and General Hospital	80 17 0
Birmingham—Sydenham College and Queen's Hospital	63 0 0
Bristol Medical School and Bristol Royal Infirmary	93 10 0
Bristol Medical School and Bristol General Hospital	87 5 0
Hull Medical School and Hospital	64 1 0
Leeds Medical School and Infirmary	86 2 0
Liverpool Royal Infirmary and School	78 15 0
Liverpool Royal Infirmary School and Northern Hospital	73 10 0
Manchester Medical School (Lectures only)	42 0 0
Newcastle School and Infirmary (in one payment)	64 1 0
Sheffield Medical School and Infirmary	76 15 0

TABLES

GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

LECTURES.	ST. BARTHOLOMEW'S.				CHARING CROSS.				ST. GEORGE'S.			
	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses
			£ s.	£ s.			£ s.	£ s.			£ s.	£ s.
WINTER SESSION.												
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Black	M Tu and Th 3.30	5 5	.. 7 7	Dr. H. Salter	M W F 2.30	4 4	6 6 7 7	Dr. Barclay	M W F 9	6 6	.. 7 7
SURGERY	Mr. Paget Mr. Coote	M 2.30 W S 9	5 5	.. 7 7	Mr. Canton	Tu Th S 9	3 3	5 5 6 6	Mr. Holmes	Tu Th S 9	6 6	.. 7 7
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Holden Mr. Callender	Tu W Th F 2.30	7 7	.. 10 10	Mr Barwell	M W F 9 Tu 4.30	4 4	6 6 7 7	Mr. Rouse	M W F 3	6 6	.. 7 7
ANATOMICAL DEMONSTRATIONS.	Mr. M. Baker Mr. Langton	Daily 10.15 till 2	3 3	5 5 ..	Mr. Bellamy	Daily, 10 to 1	2 2	4 4 4 4	Mr. Pick Mr. McConnell Mr. Christian Mr. Bright	..	3 3	.. ..
GENERAL ANATOMY AND PHYSIOLOGY	Mr. Savory	M Tu Th F 9	7 7	.. 10 10	Dr. Morris Tonge	M Tu Th F 3.30	4 4	6 6 7 7	Dr. W. Ogle	Tu Th S 10	6 6	.. 7 7
CHEMISTRY	Dr. Odling	M F 10.30 W 10.15	5 5	.. 7 7	Mr. Heaton	M W F 10	5 5	6 6 7 7	Dr. Noad	Tu Th S 11.30	6 6	.. 8 8
NATURAL PHILOSOPHY ..	..	..	..	.. ..	Dr. Diver	W Th F 11.30	3 3	.. ..	..	..	..	.. ..
HOSPITAL PRACTICE—												
Physicians	Dr. Farre Dr. Black Dr. Martin Dr. Edwards	Tu 12 Th S 1 M Tu Th 1 M Tu Th F S 1.30 M W S 8.30 Th S 1.30	12 12 18 18 6 2 mths yrs.	26 5	Dr. Chowne Dr. H. Salter	Daily 1	10 10 6 6 mths	15 15 21 0 12 mths	Dr. Page Dr. Fuller Dr. Barclay Dr. J. Ogle	M F 1 Tu S 1 M F 1 F S 1	8 8 16 16 6 1 mths year	25 4
Assistant-Physicians ..	Dr. Harris Dr. Andrew Dr. Southey Dr. Church	W S 11 M Th 11 Tu 11 F 11	.. ..	..	Dr. Headland Dr. Pollock	..	.. ..	.. ..	Dr. Wadham Dr. Dickinson	Tu S 12 M F 12	.. ..	..
Surgeons	Mr. Paget Mr. Coote Mr. Holden Mr. Savory	M Tu Th F S 1.30 M W F S 1.30 Tu F S 1.30 M Th W Th F S 1.30	15 15 6 mths	21 0 1 year	Mr. Hancock Mr. Canton	Daily 1	10 10 6 mths	15 15 21 0 12 mths	Mr. Tatum Mr. P. Hewett Mr. Pollock Mr. H. Lee	M F 1 M F 1 Tu S 1 Tu S 1	15 15 6 mths	21 0 42 0 1 year
Assistant Surgeons ..	Mr. Callender Mr. T. Smith Mr. Willett Mr. Langton	W S 12 M Th 12 F 12 Tu 12	.. ..	..	Mr. Hird Mr. Barwell	..	.. ..	.. ..	Mr. Holmes Mr. Brodhurst	M F 12 Tu S 12	.. ..	.. ..
Physician-Accoucheur ..	Dr. Greenhalgh	W 1.30 S 9	.. ..	..	Dr. Parson	..	.. ..	.. ..	Dr. J. Clarke	..	.. ..	.. ..
CLINICAL MEDICINE ..	Dr. Farre Dr. Black Dr. Martin Dr. Edwards	Tu 12	.. ..	..	By the Physicians	..	.. ..	.. ..	By the Physicians	M 2	.. ..	.. ..
CLINICAL SURGERY ..	Mr. Skey Mr. Paget Mr. Coote Mr. Holden Mr. Savory	M Th 1.30 S 9	.. ..	.. ..	By the Surgeons	..	.. ..	.. ..	By the Surgeons	Tu 2	.. ..	.. ..
DISEASES OF WOMEN ..	Dr. Greenhalgh	Alt W 3.30	.. ..	.. ..	..	..	.. ..	.. ..	..	..	.. ..	.. ..
MORBID ANATOMY AND PATHOLOGY	Dr. Church	12	.. ..	.. ..	Dr. J. Pollock	Tu F 3 sum	.. ..	.. ..	Dr. J. Ogle	Th S 3 W 2 sum	5 5	.. ..
SUMMER SESSION.												
MATERIA MEDICA	Dr. Farre	Tu Th S 10 W 11	5 5	.. 6 6	Dr. Headland	Tu Th S 12	3 3	5 5 6 6	Dr. Dickinson	M W F 3	4 4	.. 5
BOTANY	Rev. G Henslow	M W F 10	3 3	.. 4 4	Dr. Silver	M W F 10	2 2	3 3 4 4	Dr. M. Masters	Tu Th S 3	3 3	.. 4 4
FORENSIC MEDICINE ..	Dr Edwards	M Th S 9	3 3	.. 4 4	Mr. Hird Mr Tuson	M W F 4	2 2	3 3 4 4	Dr. Wadham	Tu Th S 9	4 4	.. 5 5
MIDWIFERY	Dr. Greenhalgh	Tu W F S 8.30 a.m.	5 5	.. 6 6	Dr. Chowne Dr. Parson	M W Th S	3 3	5 5 6 6	Dr J. Clarke	M W F 9	5 5	.. 6 6
PRACTICAL CHEMISTRY ..	Dr. Odling	M Tu Th F 10.15 to 1	2 2	.. 3 3	Mr. Heaton	M W F 11	2 2	.. ..	Dr. Noad	M W Th F 10	4 4	.. ..
MICROSCOPIC ANATOMY ..	Mr. Savory	.	1 1	.. ..	..	..	.. ..	.. ..	..	..	.. ..	.. ..
DEMONSTRATIONS OF MICROSCOPIC ANATOMY ..	Dr. Southey Mr Vernon	..	..	.. ..	..	..	.. ..	.. ..	..	..	.. ..	.. ..
COMPARATIVE ANATOMY..	Dr. Church	Tu Th 11 *Summer*	2 2	.. 3 3	Mr. W. H. Spencer	Tu Th S 4	3 3	.. 4 4	..	..	.. ..	.. ..
DRESSERSHIPS	..	..	12 12 3 mths	18 18 26 5 6 1 mths year	..	..	.. ..	.. ..	..	..	.. ..	.. ..
DENTAL SURGERY	Mr. Coleman	F 10	2 2	.. 3 3	Mr. Parkinson	..	.. ..	.. ..	Mr. Vasey Dr. Blandford	Tu 10	1 1	.. ..
PSYCHOLOGICAL MEDICINE	..	..	.. ..	.. ..	..	..	.. ..	.. ..	..	..	.. ..	.. ..
OPERATIVE SURGERY ..	Mr. M. Baker Mr. Langton	..	2 2	.. ..	Mr. Barwell	..	.. ..	.. ..	Mr. Rouse	..	4 4	.. ..
PRACTICAL PHARMACY ..	Mr. Woot	..	.. ..	.. ..	..	..	.. ..	.. ..	..	..	.. ..	.. ..
Entrance to the Lectures and Hospital Practice for the Licences of the Col. of Phys. and Soc. of Apoth., and the M.R.C.S. Exam.		..	..	.. 99 15	..	..	..	.. 72 9	Compounding Fee	..	..	.. 105 0
To the Hospital Practice only		..	..	.. ..	..	..	..	.. 81 10	..	..	..	.. 94 10
To the Lectures only		..	..	.. ..	..	..	..	.. 46 4	..	..	..	.. 37 16
Unlimited to all Lectures ..		..	..	.. 63 2	..	..	..	.. ..	..	..	..	.. ..

GUY'S.

LECTURES.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
			£ s.	£ s.	£ s.
WINTER SESSION.					
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Owen Rees Dr. Wilks	M W F 3	5 5	..	..
SURGERY	Mr. Birkett Mr. C. Forster	Tu Th 3.30 S 9.45	5 5	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Durham	Tu W Th F 9	5 5	..	..
ANATOMICAL DEMONSTRATIONS	Mr. Bankart Dr. Pye Smith Dr. Phillips	Daily 9 to 4	5 5	..	..
GENERAL ANATOMY AND PHYSIOLOGY	Dr. Pavy	M W F 4.15	5 5	..	..
CHEMISTRY	Dr. Alf. Taylor	Tu Th S 11	5 5	..	..
HOSPITAL PRACTICE—					
Physicians	Dr Owen Rees	M Th 1.30	10 10	15 15	26 5
	Dr Habershon	Tu F 1.30	3 6		
	Dr. Wilks	M Th 1.30	mths mths		
	Dr. Oldham *obs.*	Tu F 1.30			
Assistant-Physicians ..	Dr. Pavy	F 12	..	..	..
	Dr. Moxon	M 12			
	Dr. C. H Fagge	Tu W 12			
	Dr. J. B. Hicks	Th S 12 M F 1.30			
	Th *obs.*				
Surgeons	Mr. Cock	M Th S1.30	10 10	15 15	26 5
	Mr. Hilton	M Th 1.30	3 6		
	Mr. Birkett	M Th 1.30	mths mths		
	Mr. Poland	W S 1.30			
	Mr. Poland *oph.*	M Th 1.30			
	Mr. Hinton *aur*	Tu 12			
Assistant-Surgeons	Mr. C. Forster	S 12	..	..	..
	Mr. Bryant	M Th 12			
	Mr. A. Durham	W 12			
	Mr. Bader *oph.*	Tu F 12			
	Eye Wards	W S 1.30			
CLINICAL MEDICINE ..	*Winter*—	Weekly	..	..	..
	Dr. O. Rees				
	Dr. Habershon				
	Dr. Wilks				
	Summer—	Weekly			
	Dr. Pavy				
	Dr. Moxon				
	Dr. Fagge				
CLINICAL SURGERY ..	*Winter*—	Weekly	..	..	..
	Mr. Cock				
	Mr. Hilton				
	Mr. Birkett				
	Mr. Poland				
	Summer—	Weekly			
	Mr C. Forster				
	Mr. Bryant				
	Mr. Durham				
DISEASES OF WOMEN ..	Dr. Oldham Dr. Hicks	Weekly	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr Moxon	Daily 2.30 S 8.45 sum	..	..	..
SUMMER SESSION.					
MATERIA MEDICA	Dr. Habershon	Tu Th S 3	4 4	..	..
BOTANY	Mr. Johnson	Tu Th S 11.30	4 4	..	..
FORENSIC MEDICINE ..	Dr. A. Taylor	Tu Th S 10	4 4	..	..
MIDWIFERY	Dr. Oldham Dr. B. Hicks	Tu W Th F to 1 8.45 a m.	5 5	..	..
PRACTICAL CHEMISTRY ..	Dr. Stevenson	M W F 10	4 4	..	..
COMPARATIVE ANATOMY ..	Dr. Pye-Smith	Tu F 12.45	4 4	..	..
PRACTICAL HISTOLOGY ..	..	..	..	..	..
NATURAL PHILOSOPHY ..	Dr. Stevenson Mr. D. Colley	W 12 win.	..	..	..
OPERATIVE SURGERY ..	Mr. Bryant	W 3	..	..	..
DENTAL SURGERY	Mr. Salter	..	..	..	..
AURAL SURGERY	Mr. Hinton	..	..	..	..
CUTANEOUS DISEASES ..	Dr. H. Fagge	Tu F	..	..	..
OPHTHALMIC SURGERY ..	Mr. Poland Mr. Bader	M 8.45 a m.	..	..	..
PRACTICAL BOTANY ..	Mr. Johnson	Th 12.30	..	..	..
USE OF MICROSCOPE ..	Mr. Durham	M 8.30	..	..	..
TUTOR'S CLASS	..	..	..	..	..

Fee for Hospital Practice and Lectures, 1st year, £40; 2nd year, £40; and £10 for each succeeding year. A Perpetual Ticket, £100

KING'S COLLEGE AND HOSPITAL.

Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
		£ s.	£ s.	£ s.
Dr. G. Johnson	Tu Th F 5	7 7	..	7 7
Sir W. Ferguson	M Tu W 5	5 5	..	7 7
Mr. Partridge	Daily except M 9	6 6	..	9 9
Mr. Wood *Ass.-Demonst.* Mr. Amsden Mr. Perrin	..	..	..	..
Dr. L. Beale	M W Th F 4	6 6	..	9 9
Dr. Miller Dr. Cook, *dem.*	M W Th S 10.15	7 7	..	9 9
In-patients—		10 10	15 15	21 0
Dr. Johnson	M W F 1.30	6	18	
Dr. Beale	Tu Th S 9	mths	mths	
Dr. Garrod	Tu Th S 1.30			
Out-patients—				
Dr. Guy Dr. Priestley, *obs.*	M W F 1 Tu Th S 1.30			
Dr. C. Evans	M W F 1 win	..	..	..
Dr. A. Dudfin	M W F 1			
Dr. Harley	Tu Th S 1			
Dr. Playfair *obs.*	M W F 12.30			
Sir W. Ferguson	Tu Th S 1.30	15 15	21 0	26 5
Mr. Partridge	M W F 1.30	6	21	
Mr. Wells, *oph.*	Tu Th S 1	mths	mths	
Mr. Wood	Tu Th S 1	..	..	..
Mr. H. Smith	M W F 1			
Dr. Johnson	Every alt. M 2 p.m.	..	..	..
Dr. Beale	S 9			
Dr. Garrod	Every alt. Tu 2 p m.			
Dr. Priestley *obs.*	Every alt. Th 3			
Sir W. Ferguson	Every alt. Th 2 p.m.	..	..	..
Mr. Partridge	Every alt. F 2 p m.			
Mr. Wells, *oph.*	Every alt. M 1			
Dr. Johnson	Tu 4 sum	2 2	..	..
Dr. A. B. Garrod	Tu W Th F S a m.	4 4	..	6 6
Mr. Bentley	M Tu Th F 12.15	3 3	..	4 4
Dr. Guy	M Tu W F 3	3 3	..	4 4
Dr. W. O. Priestley	Tu W Th F 9	6 6	..	6 6
Mr C. L. Bloxam	M W F 10.15	4 4	..	8 8
Mr. T. R. Jones	M W F 4	3 3	..	4 4
..	..	..	..	..
..	..	..	..	..
Mr. Cartwright	Tu F 9	6 6	..	8 8
..	..	..	..	..
Mr. J. S. Wells	M Tu W Th 9	3 3	..	..
..	..	..	..	..
..	..	..	..	..
Mr. I. B. Yeo	Day ex. S 5 Win. M W F 5	3 3 3 3	..	..

Fee for Lectures required by Colleges of Physicians and Surgeons and Hall, £61 19s
Ditto, including Hospital Practice and Matriculation, £99 6s. 6d.
Perpetual to all Courses and Hospital Practice, £117 3s. 6d.

LONDON.

Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
		£ s.	£ s.	£ s.
Dr. H. Davies Dr. A. Clark Dr. Ramskill	W Th 9 F 4	5 5	.	6 6
Mr. Hutchinson	Tu F S 9	5 5	..	6 6
Mr. Adams Mr. Rivington	M TuThF3	5 5	..	8 8
Mr. Rivington Mr. J. Adams	Daily 10 to 3 exc. W. & S after.	5 5	..	8 8
Dr. H. Jackson Mr. Mackenzie	M W Th 4	4 4	..	6 6
Dr. Letheby Dr. C. M. Tidy	M W F 10.30	7 7	..	7 7
Dr. Davies Dr. A. Clark Dr. Ramskill Dr. Head, *obs.*	T F S 4.15 M Th 1 W S 1 W S 1.30	6 6 mths	12 12 Period rent by Asylum	21 0
Dr. Down Dr. H Jackson Dr. Mackenzie Dr. Sutton Dr. Palfrey, *obs.*	Tu F 1 M 1 W S 1 Th 1 W S 1			
Mr. Adams Mr. Curling Mr. Hutchinson Mr. Hutchinson, *oph.* Mr. Maunder Mr. Couper Mr. Couper, *oph.* Mr. Little Mr. Rivington Mr. Rivington, *aur.*	W S 1 Tu F 1 M Th 1 S 8.30 sum. Tu F 1 W S 1 W S.30 S 8.30 win. M Tu 1 S 8.30	8 8 6 mths	18 18 18 mths	25 0 3 years
By the Physicians	..	..	..	..
By the Surgeons	..	..	..	..
Dr. H. Jackson Dr. Sutton Mr. Little	2.30	..	..	..
Dr. J. L. Down	Tu Th F 4	3 3	..	4 4
Dr. Silver	M W F 10	3 3	..	4 4
Mr. Rodgers Dr. M. P. James	Daily exc. Sat 10.15	3 3	..	4 4
Dr. E. Head	M Tu W Th F 3	4 4	..	6 6
Dr. Letheby Dr. C. M. Tidy	M Th S 9	2 2	..	..
Vacant Dr. H. Jackson Dr. Mackenzie	TuTh11.30	3 3	..	..
Mr. Maunder	..	..	..	..
Mr. Barrett	..	2 2	..	..
..	..	..	..	..
..	..	..	..	..
Mr. J. Hutchinson	Tu W F 9 in June	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..

Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons, £58 4s.
To the Lectures alone, £50.
Perpetual Fee to Lectures and Hospital practice, £95 14s.

LECTURES.	ST. MARY'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	MIDDLESEX. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	ST. THOMAS'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. Chambers Dr. Handfield Jones	M W Th 4	4 4	..	6 6	Dr. Murchison	Tu Th S 9	6 6	..	8 8	Dr. Barker Dr. Peacock	M W Th 2	..	..	..
SURGERY	Mr. Spencer Smith	Tu F 4 W 3	4 4	..	6 6	Mr Shaw Mr. De Morgan	M W F 9	6 6	..	8 8	Mr. Solly Mr. Le Gros Clark	Tu 4 W F	..	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Gascoyen Mr. Norton	M Tu Th F 2.45	6 6	..	8 8	Dr. R. Liveing	Daily exc S 10	3 8	..	12 12	Mr. S. Jones	M F S 1 Th 3	..	..	..
ANATOMICAL DEMONSTRATIONS	Mr. Norton Mr. E. B. Owen	Daily 9 to 5	3 3	..	..	Dr. R. Liveing	Daily 8—5	6 6	..	8 8	Mr. Rainey Mr. Croft Mr. W. Wagstaffe	Daily 9 to 1	..	..	..
PHYSIOLOGY	Dr. Broadbent Dr. Lawson	M Tu Th F 9 W S 12	6 6	..	8 8	Dr. Sanderson Mr. Hulke	M W F 4	6 6	..	8 8	Dr. Bristowe Mr. Ord	M W F 4	..	..	..
CHEMISTRY	Dr. Matthiessen	M Tu Th F 10.15	5 5	..	7 7	Mr. T. Taylor Mr. Heisch	M W F S 11	6 6	..	8 8	Dr. Bernays	Tu Th S 1.	..	..	..
HOSPITAL PRACTICE:															
Physicians	*In-patients*— Dr. Sibson Dr. H. Jones Dr. Sieveking *Out-patients*— Dr. Markham Dr. T. Smith, *obs.*	M Th 1.15 W S 1.15 Tu F 1.15 W S 1 Tu S 1.30	7 7 6 mths	12 12 1 year	21 0	Dr. Goodfellow Dr. Thompson Dr. Murchison Dr. J. Hall Davis, *obs.*	M W F 1.3 Tu Th S 1 M W F 1 Tu W F 8 1.30	12 12 6 mth	21 0 18 mths	25 0	Dr. Barker Dr. J. R. Bennett Dr. Goolden Dr. Peacock Dr. Bristowe Dr. Barnes, *obs.*	Physicians' visits, 8.30 to 9.30 a.m.	..	..	..
Assistant-Physicians	Dr. Broadbent Dr. Cheadle	M Th 1 Tu F 1	..	..	..	Dr. Greenhow Dr. B. Sanderson	F 8.30 M 8	..	..	..	Dr. Clapton Dr Gervis, *obs*	..	..	..	..
Supernumerary Asst.-Phys.	Dr. C. Bastian					Dr. Liveing	Tu 8								
Surgeons	*In-patients*— Mr. Lane Mr. Spencer Smith Mr. H. Walton *Out-patients*— Mr. J. Lane Mr Ernest Hart, *opht.*	Tu F 1 15 M Th 1.15 W S 1.15 Tu F 1 W S 1.30	9 9 6 mths	21 0 1 year	31 0	Mr. Shaw Mr. De Morgan Mr. Moore Mr. Nunn Mr. Hulke, *opht*	Tu F 1 M Th 1 M Th 1 Tu F 1 Th 1.30 Tu F 8.30	15 15 12 mth	21 0 3 years	25 0	Mr. Solly Mr. Le Gros Clark Mr. Simon	Surgeons' visits, 8.30 to 9.30 a.m.			
Assistant-Surgeons	Mr. Gascoyen Mr A. T. Norton	M Th 1 W S 1	..	..	..	Mr Hulke Mr. Lawson	M F 1 Th S 1	..	..	..	Mr. S. Jones Mr. J. Croft	..	..	..	..
CLINICAL MEDICINE	Dr Sibson Dr. H. Jones Dr. Sieveking	M 2 Every alt. S 2 Every alt. F 2	..	..	..	The Physicians The Phys-Acc	Tu Th 3 w. M W F S 3 sum. M 10	..	..	..	Dr. Barker Dr. Bennett Dr. Goolden Dr. Peacock Dr. Bristowe	*Winter*—M 3 After their visits *Summer*—Th aft. vis. M 2	..	..	..
CLINICAL SURGERY	Mr. Lane Mr. Spencer Smith Mr. H. Walton	Every Tu 2 Every alt. Th 2 Every alt. S 2	..	..	..	The Surgeons The Oph-Surg	Tu Th 3 w. M W F S 3 sum. Tu 3	..	..	..	By the Surgeons	After their visits	..	..	..
DISEASES OF WOMEN	Dr. T. Smith	..	..	..	..	..	..	..	..	..	Dr. Barnes	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Charlton Bastian	Summer Tu F 11	..	..	..	Mr. Sibley Dr. Cayley	Tu Th 4	3 3	..	4 4	Dr. J. Lees	Daily 9.30	..	..	..
SUMMER SESSION.															
MATERIA MEDICA.	Dr. Sieveking	Tu W Th F 8 a.m	4 1	..	6 6	Dr. H. Thompson	M W F 9	4 4	..	5 5	Dr. Clapton	Tu Th F 2	..	..	..
BOTANY	Dr. Trimen	M W F 12	3 3	..	4 4	Dr T. S. Cobbold	M W F 4	4 4	..	5 5	Dr. J. W. Hicks	M W Th 12	..	..	..
FORENSIC MEDICINE	Dr. Randall	M Tu Th 10	3 3	..	4 4	Dr. Greenhow	Tu Th S 9	4 4	..	5 5	Dr. Gervis	M Th S 8	..	..	..
MIDWIFERY	Dr. Tyler Smith	Daily ex. S 9	4 4	..	6 6	Dr. J. Hall Davis	M W F 10	4 4	..	5 5	Dr. R. Barnes	M Tu Th F 3	..	..	..
PRACTICAL CHEMISTRY	Dr. Matthiessen	Tu Th S 11.30—1	3 3	..	..	Mr. Taylor Mr. Heisch	M W F 11	3 3	..	..	Dr. Bernays	F 11 Tu Th 10—12 S 10—1	..	..	..
COMPARATIVE ANATOMY	Mr. S. G. Mivart	W F 10	2 2	..	3 3	Dr. T. S. Cobbold	Tu Th 4	3 3	..	..	Mr. Ord, M B.	Tu Th 1	..	..	..
OPHTHALMIC SURGERY	Mr. Ernest Hart	Tu 2.30	2 2	..	..	Mr. Hulke	Tu 3 wintr. & summer	..	..	..	Mr. S. Jones	M F 1	..	..	..
PRACTICAL HISTOLOGY	Drs. Broadbent and Lawson, with Physiology	..	..	..	..	Dr. Woodham Webb	Tu Th 3	..	..	..	Mr. Rainey	Tu 12.30 winter	..	..	..
OPERATIVE SURGERY	Mr. J. Lane	Winter	..	..	..	Mr. Nunn	S Winter	5 5	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Sercombe	Winter W S 9	2 2	..	..	Mr. Tomes Mr. Turner	..	5 5	..	..	Mr. Elliott	..	..	..	..
GENERAL PATHOLOGY	..	..	..	..	..	..	..	..	..	..	Mr. Simon	..	..	..	..
PATHOLOGICAL CHEMISTRY	..	..	..	..	..	..	..	..	..	..	Dr. Thudichum	Tu 3 Th 4 winter	..	..	..
PUBLIC HEALTH	Dr. Randall, with For. Med.	..	..	..	..	Dr. Greenhow	M 4	2 2	..	..	..	..	..	..	..
PRACTICAL PHARMACY	..	..	3 3 3 mths	6 6 6 mths	10 10 12 mths	..	..	5 5 6 mths	3 3 12 mths	..	..	..	..	..	..
Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons	£89 5s.,	or in	one	sum	84 0	..	..	..	..	90 0	..	..	..	..	..
To the Lectures alone	..	..	..	..	52 10	..	..	..	..	..	..	..	..	..	..
To the Hospital Practice alone	..	..	..	..	36 15	..	..	..	..	42 0	..	..	..	..	..
Unlimited	..	£105, or in	one	sum	99 15	..	..	..	..	..	..	..	..	..	00 0

LECTURES.	UNIVERSITY COLLEGE AND HOSPITAL. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	WESTMINSTER. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s. d.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. J. R. Reynolds	Day. ex. S 9	6 16 6	..	8 8	Dr. Basham	M Th F 4	5 5	..	7 7
SURGERY	Mr. Marshall	Tu Th F 4	4 14 6	..	6 6	Mr. Holthouse	M S 9.15 W 3	5 5	..	7 7
DESCRIPTIVE ANATOMY	Mr. Ellis	Daily 12	7 7 0	..	10 10	Mr. Teevan	Tu W Th F 9.15	5 5	..	7 7
DEMONSTRATIONS	Mr. Ellis Mr. J. S. Cluff Mr. M. Beck Mr. S. Peacock	Daily				Mr. Pearse	Daily 10—1	2 2	..	3 3
PHYSIOLOGY AND GENERAL ANATOMY	Dr. Sharpey	Daily ex. S 10	6 6 0	..	9 9	Mr. Power	M F 3 W 4	5 5	..	7 7
CHEMISTRY	Dr. Williamson	Daily ex. S 11	6 6 0	..	9 9	Dr. Dupré	Tu Th 3 F 10.30	5 5	..	7 7
HOSPITAL PRACTICE—										
Physicians	Dr. Jenner Dr. Reynolds Dr. Hurley Dr. W. Fox Dr. S. Ringer	Daily 1 & 2	..	..	..	Dr. Basham Dr. Fincham Dr. Radcliffe Dr. F. Bird, *obs.*	M Th 1.30 W S 1 30 Tu F 1.30 Tu F 3	8 8 6 months	12 12 1 year	21 0
	Dr. Grailly Hewitt, *obs.*	Three times a week	For 6 months to the Physicians' and Surgeons' practice, £16 10s. To either separately, £11 15s.	For 1 year to the Physicians' and Surgeons' practice, £21 15s. To either separately, £16 10s.						
	Dr. Hillier, Skin Infirmary	S 9								
Assistant-Physicians	..	..			..	Dr. Anstie Sir D. Gibb, Bart., M.D. Dr. Willis	M Th 1 Tu F 1 W S 1	8 8 6 months	12 12 1 year	21 0
Surgeons	Mr. Erichsen Mr. Marshall Sir H. Thompson Mr. W. Jones, *oph.* Mr Streatfeild, *oph*	Daily 1 & 2 M W F 1			..	Mr. Holt Mr. Brooke Mr. Holthouse	M Th 1.30 Tu F 1.30 W S 1.30			
Assistant-Surgeons	Mr. Berkeley Hill Mr. C. Heath	..			27 0	Mr. Hillman Mr. Power Mr. Mason	M Th 1 W S 1 Tu F 1	..	..	..
CLINICAL MEDICINE	Dr. Jenner Dr. Reynolds Dr. W. Fox Dr. Hillier	Once a fortnight Twice a week Once a fortnight			..	By the Physicians	Weekly	..	..	..
CLINICAL SURGERY	Mr. Erichsen Mr. Marshall Sir H. Thompson Mr. W. Jones, *oph.*	Twice a week Fortnightly Once a fortnight			..	By the Surgeons	Weekly	..	..	..
CLINICAL MIDWIFERY	Dr. G. Hewitt	Fortnightly	..	..	..	..	..	..	..	..
MORBID ANATOMY	Vacant	Summer	3 3 0	..	4 4	Dr. Willis	..	..	..	..
SUMMER SESSION.										
MATERIA MEDICA	Dr. Ringer	Daily except S 12	4 4 0	..	6 6	Dr. Anstie	M Th F 3	3 3	..	4 4
BOTANY	Mr. Oliver	Daily exc. S 4	3 3 0	..	4 4	Mr. Syme	M W F 11	3 3	..	4 4
FORENSIC MEDICINE	Dr. Harley	Tu W Th F 10	3 3 0	..	4 4	Sir D. Gibb Dr. Willis	Tu W F 3	3 3	..	4 4
MIDWIFERY	Dr. Grailly Hewitt	Daily except. W and S 9	4 4 0	..	6 6	Dr. Bird	Tu Th F 4	4 4	..	5 5
PRACTICAL CHEMISTRY	Dr. Williamson	Tu W Th F 11	4 4 0	..	..	Dr. Dupré	Tu Th 9.30	2 2	..	..
COMPARATIVE ANATOMY	Dr. Grant, with *Zoology*	Daily except S 3, from Oct. to June	8 8 0	..	9 9	Mr. Power	W S 9.30	2 2	..	..
OPERATIVE SURGERY	Mr. C. Heath	Daily 3 in April	4 4 0	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Ibbetson	Tu Th 5 in Jan	1 1 0	..	..	Mr. Walker	S 9.15, Oct., Nov., Dec.	..	..	..
NATURAL PHILOSOPHY	Prof. Foster	M W F 4	5 5 0	..	..	Mr. Brooke	Tu 3 sum.	1 1	..	..
OPHTHALMIC SURGERY	Mr. W. Jones	Tu Th	2 2 0	..	..	..	..	..	..	..
PALÆO-ZOOLOGY	Dr. Grant	Daily except S 3 sum.	1 1 0	..	..	..	..	..	..	..
HISTOLOGY AND PRACTICAL PHYSIOLOGY	Dr. M. Foster	M W 4—6 win.	4 4 0	..	5 5	..	..	..	..	..
MENTAL DISEASES	Dr. Sankey	Twice a week	1 11 6	..	..	..	..	..	..	..
PRACTICAL PHARMACY	..	..	3 3 0	..	5 5	..	..	..	..	..
			3 months		6 months					
Fees for the Lectures and Hospital Practice for the Licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S.	..	..	..	..	93 3	..	..	..	..	78 15
For the Hospital Practice alone	..	..	..	..	27 0	..	..	..	..	29 8
Perpetual to Lectures and Hospital Practice	..	..	..	..	..	..	..	..	..	84 0

ADDITIONAL INFORMATION RESPECTING THE METROPOLITAN SCHOOLS, ETC.

ST. BARTHOLOMEW'S HOSPITAL AND MEDICAL COLLEGE.

THIS Hospital contains 650 beds.

Fees for Lectures and Hospital Practice are payable by instalments —£31 10s. at the beginning of the first Winter Session, £31 10s. at the beginning of the first Summer Session, £36 15s. at the beginning of the second Winter Session. The Midwifery-Assistant, the Clinical Clerks to the Physicians and to the Physician-Accoucheur, certain of the Dressers, and the Clerks to the Assistant-Physicians and Assistant-Surgeons are chosen from the most diligent Students. Sixteen Dresserships are annually given to the Students who pass the best examinations in Surgery, or who may be otherwise specially recommended.

A course of Microscopic Demonstrations is given during the Summer Session, under the superintendence of Mr. Savory. Arrangements have been made for conducting the study of Diseases of the Skin, Diseases of the Eye, Diseases of the Ear, and of Orthopædic Surgery during the Sessions 1867-68, by the Assistant-Physicians and Assistant-Surgeons.

The following Scholarships and Prizes are awarded:— Senior Scholarship of the value of £50, Medicine, Surgery, and Materia Medica. Senior Scholarship of the value of £50,

Anatomy, Physiology, and Chemistry. Scholarships of the value of £25 each will be awarded to those students who are placed second in the Examinations for the Senior Scholarships. Junior Scholarships of the value of £50, £30, and £20 are awarded after the General Examination at the end of the Summer and Winter Sessions. Wix Prize, founded 1842, is awarded for the best Essay on "The Connexion between Ancient and Modern Literature, and the Studies of Natural Science." Hitchin's Prize, founded 1851. Subject of Examination—Bishop Butler's Analogy. Bentley Prize, founded 1842. For the best Report of Surgical cases occurring in the Wards of the Hospital during the previous year. It is expected that the Reports will comprise the Histories, Progress, Treatment, and Results of not less than Twelve Cases, with observations thereupon. Foster Prize. Subject of Examination—Practical Anatomy—Senior. Treasurer's Prize. Subject of Examination—Practical Anatomy—Junior. The Kirkes Medal. Subject of Examination—Clinical Medicine. Students preparing for the Universities may be examined by the Tutors. Fee £5 5s. Students preparing for the College of Surgeons are examined by the Demonstrators; those preparing for the College of Physicians and for the Apothecaries' Hall are examined by Dr. Andrew, Dr. Southey, or by the Tutors, Dr. Duckworth, Mr. Baker, and Mr. Shepard. Students of the first year are examined weekly in the several subjects of their studies, by the Tutors.

A Collegiate Establishment, in which students are lodged and boarded, exists in connexion with the Hospital. The Warden is Mr. Morrant Baker. Each Student pays an entrance fee of £2 2s. The expense of board, lodging, etc., is from £1 10s. to £1 13s. a week.

Fee for general subjects for Students of Dental Surgery: First Winter, £26 5s.; First Summer, £26 5s.; or a single payment of £52.

All communications must be addressed to Mr. T. Smith or Mr. Callender, at the Hospital.

CHARING-CROSS HOSPITAL.

Gentlemen are received—1st. As Matriculated Students, or those who enter for their entire Medical Education at the Charing-cross Hospital Medical College. 2ndly. As occasional Students, or those who enter to one or more particular classes. Matriculated Students alone have the privilege of filling the offices of Clinical Clerks, Dressers, Dentist's Assistant, Resident Medical Officer, Resident Surgical Officer, and Physician Accoucheur's Assistant, and of becoming candidates for the Scholarships, Medals, and various general class prizes.

The Fee for the Courses of Lectures and Hospital Practice required by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, to Non-Matriculated Students, is £77 14s.; for the Hospital Practice alone, £31 10s. The Fee to Matriculated Students for the full period of the Lectures and Hospital Practice required by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, is £70 7s.; for the Hospital Practice alone, £26 5s. The Fee for Matriculation is £2 2s., to be paid on entering. Payment of Fees may be made either in one sum (£72 9s.) on Matriculation, or in two sums, the first (£37 5s. 6d.) at the commencement of the Winter Session, the second (£35 3s. 6d.) immediately after the first or Christmas vacation. It is strongly recommended that Students enter at the same time to the Medical Tutor's Class. Fee—one Session, £2 2s.; two Sessions, £3 3s.

The office of Registrar to the Hospital, and Pathological Registrar to the School, tenable for two or three years, for the efficient performance of the duties appertaining to which the Council award an annual stipend, is open to all matriculated students of the Hospital who have obtained their qualifications.

Scholarships, Medals, and Prizes.—Scholarships: The Llewellyn Scholarship of £25 is open to all matriculated students who have just completed their second academical year. The Golding Scholarship of £15 a year, tenable for two years, is open to all matriculated students who have just completed their first academical year. The following medals are awarded annually:—The Gold Medal, for General Proficiency; the Governor's Clinical Silver Medal; Silver Class Medals, on all the subjects of the Lectures; Bronze Class Medals, on all the subjects of the Lectures.

Free Scholarships.—Candidates for Free Scholarships are required to be sons of Professional men, of reduced circumstances and position, or of gentlemen in a corresponding station of society, and are to have had a classical education fitting them for the Medical Profession. They must have already commenced their Medical studies, and, from unforeseen circumstances, be unable to complete their Professional education without such assistance. They are to send in their application and testimonials before September 1.

ST. GEORGE'S HOSPITAL.

Perpetual Pupils pay at the time of entry a compounding fee of £105. They are admitted to the Practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes and Exhibitions, to hold the appointments of House-Physician, House-Surgeon, and Assistant House-Surgeon, and to become Clinical Clerks for two periods of three months each, and Dressers for two similar periods.

Gentlemen are admitted to the Hospital Practice and Lectures required for the Licence of the College of Physicians, for the Diploma of Member of the College of Surgeons, and for the Licence of the Society of Apothecaries, with the exception of Practical Chemistry, on payment of the following fees—viz., £42 for the first year of study, £42 for the second year of study, and £10 10s. for each succeeding year.

Special courses of Lectures are given on Pathology, including Morbid Anatomy, Psychology, Ophthalmic Surgery, Orthopædic Surgery, and Dental Surgery. Demonstrations of Diseases of the Skin and Lectures on Public Health are given by the Lecturer on Medicine. Demonstrations on the Laryngoscope are given by the Lecturer on Surgery, and Clinical Instruction on the Diseases of Women by the Lecturer on Midwifery. A Maternity department is attached to the Hospital.

Exhibitions and Prizes.—"The William Brown Exhibition," of £40 per annum, tenable for three years: This Exhibition is competed for by perpetual pupils who have commenced their third, but not completed their fourth, Winter Session. It will be "bestowed on the Candidate who shall show the best general fitness for the exercise of the Medical Profession, and whose moral conduct shall in all respects be satisfactory." Sir Charles Clarke's Prize for Good Conduct: The interest of £200 Consols to be awarded annually to the Student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A Silver Medal to be awarded annually for the best Clinical Report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the perpetual pupil of the Hospital who shall have delivered to the Surgeons the best Report of not more than twenty Surgical cases which have occurred in the Hospital during the preceding twelve months. The Lewis Powell Clinical Prize in Medicine will be awarded to the perpetual pupil of the Hospital who shall produce the best Report of not more than twenty Medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy. General Proficiency Prizes: To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

The appointments of House-Physician, House-Surgeons, Curator, Registrars, Obstetric Assistant, and Demonstrator of Anatomy (the four latter with salaries attached), are open to Senior Pupils.

For further information apply to Dr. Barclay or Mr. Holmes.

GUY'S HOSPITAL.

This Hospital contains nearly 600 beds.

Voluntary Examinations are held at four periods of the Student's Course, as follows:—1st. At Entrance, and will commence on October 7, in Elementary Classics, Ancient and Modern History, and Mathematics. The Candidate who distinguishes himself most, receives £25; the second Candidate, £20; and the third, £15. 2nd. At the end of the first Sessional year, in all the subjects of the first year's Course of Study, one sum of £30, another of £25, and a third of £10 10s. (presented by one of the Governors) will be given according to proficiency. 3rd. At the end of the second Sessional year, in the subjects which form the Course of Study up to that time, £35 and £30. 4th. At the end of the third Sessional year, in all the subjects of the Curriculum, £40 and £35. Honorary Certificates are given to candidates who pass creditable examinations.

Special Examinations.—Two Gold Medals are given annually by the Treasurer to Students at the end of their third year; one for Clinical Medicine and the other for Clinical Surgery.

Fees for Hospital Practice and Lectures are paid as follows: First Year £40, Second Year £40, and £10 for every succeeding year of attendance. One payment of £100 entitles a Student to a perpetual ticket. Materials used in practical courses are charged extra.

Ward Clerks, Post-mortem Clerks, Clinical Clerks, Dressers, Resident Obstetric Clerks, and Dressers, in the Eye Wards, are selected from the Students, according to merit. Each Dresser (except those in the Eye Wards) has the privilege of rooms and commons in the Hospital free of charge for one month of his Course. The Obstetric Clerks have the like privileges for two months each—one month as junior, another as senior. Three House-Surgeons are appointed every six months from those Students who have obtained the College Diploma.

The Registrars, Dr. C. Hilton Fagge and Mr. G. Eastes, and the Demonstrators in Anatomy and Chemistry, will assist pupils in their Studies.

For further information apply to Mr. Stocker, Apothecary to the Hospital.

KING'S COLLEGE.

The fees may be paid either in one sum on Matriculation or in two equal sums; the one at the commencement of the first Winter or Summer Session, the other after the first Christmas vacation, not later than January 21, unless special arrangements are made at the time of entrance. Students are, however, recommended to add £2 2s. for a second Course of Chemistry, as well as the fee for attendance on the Medical Tutor's class for one year—viz., £3 3s. All resident Students are required to attend the Tutor during their first year.

Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from Matriculated Students who are Pupils of the Hospital.

Scholarships.—Warneford Scholarships: The sum of £200 is set apart annually for Scholarships in the Medical Department—viz., "For the encouragement of the previous education of Medical Students," two Scholarships of £25 per annum for three years; "For the encouragement of resident Medical Students," one Scholarship of £25 per annum for two years. College Scholarships: The following are given every year to Matriculated Students of this department:—1. One of £40 for two years, open to Students of the third and fourth year; 2. One of £30 for one year, open to Students of the second year; 3. One of £20 for one year, open to Students of the first year. Daniel Scholarship: £20 tenable for two years is open to every Student of the College who has worked in the laboratory for at least six months. Sambrooke Registrarships: Two of £30 every year.

Prizes.—Leathes Prizes: Bible and Prayer-book to two Matriculated Medical Students. Warneford Prizes: £40 is expended in the purchase of Medals and Books, as Prizes to two Matriculated Medical Students. Class Prizes are awarded annually for proficiency; these consist of Books of the value of £3. Two Medical Clinical Prizes, one of £3 for the Winter Session, and the other of £2 for the Summer Session; and two Surgical Clinical Prizes of the same value are given for attendance at the Hospital. Todd Medical Clinical Prize: This prize was founded in memory of the late Dr. Todd. It consists of a Bronze Medal and Books to the value of £4 4s.

Residence of Students.—A limited number may reside within the College.

For further information apply to Professor Bentley, Dean of the Medical department.

THE LONDON HOSPITAL.

The Hospital contains 500 beds—160 Medical and 340 Surgical.

There are special departments for Diseases of Women, Syphilis, Diseases of the Skin, Ear, Eye, etc. All the students are entitled to in-patient Dresserships for one year, without further payment, and reside in the Hospital in rotation.

The entry fee to Lectures and Hospital Practice is payable in two instalments of £44 2s. each at the commencement of the two first Winter Sessions. A fee of £1 1s. is paid for instruction in Vaccination. The fee to the Library (compulsory) is £1 1s., and is perpetual.

Prizes and Appointments.—1. Two Scholarships. The competition will be restricted to first year's students. The first, £20, will be awarded to the student who shall pass in December, 1867, the best examination in Human Osteology. The second, £25, will be awarded to the student who shall pass, at the end of the Winter Session, the best examination in Anatomy, Physiology, and Chemistry. 2. The Duckworth-Nelson Prize, £10 10s., is awarded by competition once in two years, and is open to all students who have not completed their education. The subjects of examination in 1868 will be Practical Medicine and Surgery. 3. Two Gold Medals are annually awarded to students who shall have most distinguished themselves in the performance of their duties at the Hospital. 4. A Resident Medical Officer, who resides and boards in the Hospital, and receives £75, is appointed for twelve months by the Committee of the Hospital. The Resident Medical Officer is eligible for re-election for the further period of twelve months, and then receives £100. 5. A Medical and Surgical Registrar is appointed by the Committee of the Hospital, and receives £25 a year. 6. Two Assistants are appointed in the Physicians' out-patient department, and receive each £10 annually. 7. A sum of £60 is awarded as money prizes to the most assiduous of the out-patient Dressers. 8. Three House-Surgeons, a Resident Accoucheur, an Assistant Medical Officer, Surgical Dressing Pupils, an Assistant Dentist, and Post-mortem Clerks are selected from among the Students according to merit.

Dr. Morell Mackenzie will give a short course of Lectures on Diseases of the Throat during the Summer Session.

Further information may be obtained from Mr. Adams or Mr. Hutchinson, or on application at the College.

ST. MARY'S HOSPITAL.

The Hospital contains 150 beds—68 Medical, and 102 Surgical. The entrance fees may be paid in instalments by arrangement with the Dean of the School.

Resident and Non-Resident Medical Officers, House-Surgeons, Clinical Clerks, and Dressers.—All these Appointments are open to the Pupils without additional fee, and are held in succession, so as to secure a complete system of Clinical training. Five of these Appointments exceed in value an equal number of scholarships of £50 each. All General Students are required to perform the duties of Clinical Clerks and Dressers for a period of six months during the last two years of their curriculum. A Resident Registrarship within the Hospital has been created with a salary of £100 a year, tenable for two years, preference being given to past House-Surgeons and Perpetual Pupils.

Prizes.—Examinations for Prizes are held at the termination of each Session, the Classes being grouped in accordance with the curriculum laid down for Students of the First, Second, and Third Year. The average value of each of these Prizes is £5 5s. A Scholarship in Anatomy, of the annual value of £25 (the holder of which will be styled Assistant-Demonstrator, and assist in the teaching of Practical Anatomy), will be awarded to the best qualified Student. A Prize of £20 for Students for the First Year is awarded at the end of the Winter Session. A Prize of the value of £4 4s. will be given to the Student who shall make the best Anatomical Preparation, such Preparation to become the property of the School. Two Prosectors are appointed annually, who each receive a Certificate and £5 for their services in the Dissecting-room.

The Fee for Instruction in Vaccination is £1 1s. A Fee of £1 1s. is required to be paid to the Library and Reading-room.

Further information may be obtained from Mr. Ernest Hart, Dean of the School.

THE MIDDLESEX HOSPITAL.

The Hospital contains 305 beds; and there are special departments for Cancer (including 36 beds for in-patients), for Diseases of the Eye and Teeth, for Diseases of Women and Children, and for Syphilis.

Special attention is devoted to the Clinical Instruction of the Students in the wards; and to promote this object three Clinical Prizes, including the Governors' Prize of 20 guineas, are awarded to those students who pass the most satisfactory Examination at the bedside and in the post-mortem room. Class Prizes are also given. There are also valuable rewards in the form of Five Resident Clinical Appointments.

Students can also avail themselves, free of charge, of the daily instruction of the College Tutor, Dr. Robert Liveing, M.A., and thus avoid the necessity of any private teaching apart from that of the Medical School.

The General Fee for attendance on the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £90, which may be paid by instalments.

ST. THOMAS'S HOSPITAL.

The admission fee to Hospital Practice and all the Lectures is £40 for the first year, and a similar sum for the second, and £10 for each succeeding year; or £90 at one payment for unlimited attendance. Special entries may be made to any course of lectures, or to the Hospital Practice.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the Skin, and Diseases of the Teeth.

Prizes and Appointments.—The William Tite Scholarship, awarded every third year: A Scholarship has been founded by W. Tite, Esq., M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, on proof of continued residence and good conduct. Preference, in case of equality between students, to be given to the son of a Medical man, and more particularly of one who has been educated at St. Thomas's Hospital; or to the son of a Medical man of Bath. To the three most distinguished pupils for general proficiency, the following Prizes are awarded at the end of the Session 1867-68:—First Year's Students—1st. College Prize of £30; 2nd. A College Prize of £20; 3rd. Ditto of £10. Second Year's Students—1st. A College Prize of £30; 2nd. Ditto of £10; 3rd. Ditto of £10. Clinical Clerks and Dressers are selected according to merit from among Second Year's Students. The Dressers are provided with rooms and commons during their period of attendance in the Hospital free of expense. Third Year's Students—1st. A College Prize of £30; 2nd. Ditto of £20; 3rd. Ditto of £10. The Cheselden Medal, founded by George Vaughan, Esq., is awarded in respect of a Special Examination in Surgery and Surgical Anatomy. The Treasurer's Gold Medal is given annually for general proficiency and good conduct. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the Third or Fourth Year's Students for the best Physiological Essay.

The House-Surgeons and Resident Accoucheur are chosen from gentlemen who have obtained their Professional diplomas. All are provided with rooms and commons. The two offices of Medical Registrar and Surgical Registrar are from time to time filled from among gentlemen who have completed their studies in the School. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians and Surgeons, receives a gratuity of £40. If the two offices are held by one person, he then receives, on completing his Reports as above, a gratuity of £80.

The Tutor in Arts is Mr. S. Hague, LL.B., B.A. Lond.

For further information apply to T. A. Barker, M.D., Dean, or to Mr. R. G. Whitfield, Medical Secretary.

UNIVERSITY COLLEGE, LONDON.

The fee for Lectures and Hospital Practice required by the Colleges of Physicians and Surgeons and the Society of Apothecaries may be paid at once or distributed in payment over three years, as follows:—First Winter Term, £37 10s.; First Summer Term, £16 16s.; Second Winter Term, £25 4s.; Second Summer Term, £7 7s.; Third Summer Term, £6 6s.

Entrance Exhibitions.—Three entrance Exhibitions of the respective value of £30, £20, and £10 per annum, tenable for two years, are awarded upon Examination to gentlemen who are about to commence their first winter's attendance in a Medical School. The Examination, by written papers, will be in Classics, Elementary Mathematics, Natural Philosophy, and in either French or German at the option of the Candidate, and will take place at the College on the 25th and 26th of September. Notice of intention to compete, addressed to the Secretary, must be left not later than 2 p.m. on Tuesday, September 24, at the office of the College, where the Regulations may be obtained.

Scholarships and Exhibitions.—Atkinson Morley Surgical Scholarships: An Annual Scholarship of £45, tenable for three years, awarded to the Student who, upon Examination, shall be found to possess the greatest proficiency in the Theory and Practice of Surgery. Filliter Exhibition: A Prize of £30, awarded annually in July, founded "for the encouragement of proficiency in Pathological Anatomy."

Medals and Prizes.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, awarded at the end of each Term to Pupils who shall have most distinguished themselves by reports and observations on the Medical cases in the Hospital. The Liston Gold Medal will be awarded at the end of the Session to the Pupils who shall have most distinguished themselves by reports and observations on the Surgical cases in the Hospital.

Class Medals and Prizes.—Besides the above, Gold and Silver Medals or other Prizes are awarded in each class.

The appointments of Assistant-Curator to the Museum of Anatomy and Pathology, of Demonstrators of Anatomy, and of Resident Medical Officer to the Hospital—all of which have emoluments attached to them—are almost invariably conferred upon Students of the College.

Offices in the Hospital tenable by Students.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants are selected from the Pupils, without additional fees. The Physicians' Assistants, Obstetric Assistant, and House-Surgeons reside in the Hospital, paying for their board.

Further information may be obtained at the office of University College.

WESTMINSTER HOSPITAL.

The Entry Fee to Lectures and Hospital Practice required by the Colleges of Physicians and Surgeons and the Society of Apothecaries may be paid in three instalments—£36 15s. at the commencement of the first year, £31 10s. at the commencement of the second, and £10 10s. at the commencement of the third year.

Prize Appointments and Prizes.—The offices of House-Physician and House-Surgeon are open to competition amongst Gentlemen who have been educated at the Hospital, and who are qualified to practise under the Medical Registration Act. The House-Physician and House-Surgeon are provided with board and lodging in the Hospital free of expense. Assistant House-Surgeon: Is appointed from among the Senior Students by Examination. Clinical Clerks and Dressers: These appointments are conferred upon the most diligent students.

Prizes.—A Prize of Books or Instruments for each of the Winter and Summer Courses. A Clinical Medicine Prize of the value of 5 guineas. A Clinical Surgery Prize of similar value. A special Prize will be given for Clinical Midwifery by the Westminster Maternity Charity. Chadwick Prize for General Proficiency. A sum of 20 guineas will be awarded, in one or more Prizes, to the most meritorious Student or Students who are attending Lectures and Hospital Practice for the second or third year.

Further information may be obtained from the Dean, Mr. Power.

ENGLISH PROVINCIAL SCHOOLS AND HOSPITALS.

QUEEN'S COLLEGE, BIRMINGHAM.

Dean of the Faculty, W. S. Cox, Esq., F.R.S.

The Michaelmas Term will commence on Tuesday, October 1.

Winter Session.—Medicine, by Professor (*ad int.*) Dr. Wade, B.A., L.R.C.P., Senior Physician of the Queen's Hospital. Surgery, by Professor Sands Cox, F.R.S., F.R.C.S, Professor Pemberton, M.R.C.S., and Professor F. Jordan, F.R.C.S. (exam.). Chemistry, by Professor Alfred Anderson, F.C.S. Anatomy, by Professor Foster, L.Q. and K.C., Assistant Physician of the Queen's Hospital. Physiology, by Professor Dr. Norris, M.R.C.S. Practical Anatomy and Demonstration, by Professor Lloyd, M.R.C.S.

Summer Session.—Materia Medica and Therapeutics, by Professor Dr. Divers. Midwifery and Diseases of Women and Children, by Professor John Clay, M.R.C.S., and Professor Dr. Suckling, M.R.C.S., Obstetric Surgeon of the Queen's Hospital. Botany, by Professor Dr. Hinds, M.R.C.S. Forensic Medicine, by Professor John Postgate, F.R.C.S. (by exam.). Practical Chemistry, by Professor Anderson, F.C.S.

Medical Tutor and Demonstrator, James Hinds, M.R.C.S. Clinical Medicine, Queen's Hospital, Professors Wade, Fleming, and Foster. Clinical Surgery, Professors Cox, West, Gamgee, and Jordan. Clinical Midwifery, Professor Berry.

The Composition Fee for the three years' Course of Lectures required by the Colleges of Physicians and Surgeons, Society of Apothecaries, and Army and Navy Boards, is £12. Attendance on the Medical and Surgical Practice of the Queen's Hospital, £21. Total, £63. Fees to be paid half on entry, half at commencement of the second year.

In the Arts Department, students are prepared under the Resident Classical, Mathematical, and Medical Tutors for the

Preliminary Examinations required by the Examining Boards. Inclusive Fees, £15 15s. per annum.

Resident students of the Arts and Medical Departments are received at a charge of £50 per annum for board and furnished rooms, and live in the College during term time, under the supervision of the Warden and Tutors.

There are four Scholarships to be awarded to deserving students resident in the College.

Further particulars may be obtained by application to the Rev. the Warden, Queen's College; the Dean of the Faculty, Professor Sands Cox; Professor Dr. Nelson, Professor Clay, Professor Dr. Suckling, or Professor Dr. Hinds, Treasurer to the Professors, who is authorised to enter students to the College and Hospital.

QUEEN'S HOSPITAL, BIRMINGHAM.

Physicians, Drs. Wade, Fleming, and Foster. Surgeons, Messrs. J. F. West, J. S. Gamgee, and F. Jordan. Assistant-Surgeon, Mr. J. Wilders. Resident Physician, Dr. Wright. Resident Surgeon, Dr. Jolly.

Fees.—Medical and Surgical Practice, six months, £6 6s.; ditto, one year, £10 10s.; ditto, three years, £21.

BIRMINGHAM GENERAL HOSPITAL.

Physicians: Dr. G. F. Evans, Dr. Bell Fletcher, Dr. James Russell, Dr. W. F. Wade. Surgeons: Mr. D. W. Crompton, Mr. Alfred Baker, Mr. O. Pemberton, Mr. T. H. Bartleet. Resident Physician and Tutor: Dr. Wyllie. Resident Surgeon: Mr. Addenbrooke.

Fees:—Surgical Practice, six months, £10 10s.; twelve months, £12 12s.; eighteen months, £17 17s.; three years, or the period required by the College, £26 5s. No extra fee for Dressership. Medical Pactice, six months, £7 7s.; twelve months, £10 10s.; two years, the term required for the Licence of the College of Physicians and Society of Apothecaries, £12 12s.

By the Regulations of the Hospital each Student is required to fill the office of Dresser.

SYDENHAM COLLEGE MEDICAL SCHOOL, SUMMER-LANE, BIRMINGHAM (Opposite the General Hospital).

The Session 1867-68 will commence on Tuesday, October 2. Anatomy and Physiology, Dr. Jordan, M.D., and Mr. Bartleet, M.B. Practical Anatomy, Mr. F. Jordan; and Demonstrations, Mr. Jones. Principles and Practice of Medicine, Dr. Russell. Principles and Practice of Surgery, Messrs. Baker and Bracey. Dental Physiology and Surgery, Mr. Howkins. Chemistry, Dr. Hill. Summer Session.—Midwifery, Mr. Bassett. Materia Medica and Therapeutics, Dr. Foster. Practical Chemistry, Dr. Alfred Hill. Botany, Dr. Savage. Forensic Medicine and Toxicology, Mr. Swain and Dr. Hill. Prizes are awarded in each class, and a Council Prize is given for General Proficiency. Fee to all the Lectures required by College and Hall, £42; Perpetual, £50. Further particulars may be obtained on application to the Principal, Dr. Bell Fletcher.

BRISTOL MEDICAL SCHOOL, SESSION 1867-68.

The Winter Session will commence on Tuesday, October 1, 1867. Medicine, Dr. Brittan. Surgery, Mr. Coe and Mr. Leonard. General Anatomy and Physiology, Drs. Martyn and Fripp. Descriptive and Surgical Anatomy, Mr. Clark and Mr. Lansdown. Superintendence of Dissections, Messrs. James and Wintle. Chemistry, Mr. Herapath.

The Summer Session will commence on May 1, 1868. Midwifery and Diseases of Women, Dr. J. G. Swayne. Forensic Medicine, Dr. H. Marshall and Mr. Herapath. Materia Medica and Therapeutics, Dr. G. F. Burder. Botany, Mr. A. Leipner. Practical Chemistry, Mr. Herapath.

Fee for perpetual attendance on all the above Courses, excepting Practical Chemistry, £17 5s.

Competitive Examinations are held amongst Students of the first, second, and third years respectively; and Prizes are annually awarded, amounting in aggregate value to about £40.

Medical and Surgical Hospital Practice and Clinical Lectures are attended at the Royal Infirmary or at the General Hospital.

Further information may be obtained on application to the Honorary Secretary, Dr. G. F. Burder.

BRISTOL ROYAL INFIRMARY.

The Infirmary contains 242 beds. Physicians, Dr. Brittan, Dr. Fairbrother, Dr. Fox, Dr. Beddoe. Surgeons, Mr. Prichard, Mr. Bernard, Mr. Hore, Mr. Leonard, Mr. Clark.

Fees.—For one year, Surgeon's pupil, £12 12s; Dresser (extra fee), £12 12s. For two years (at one payment), Surgeon's pupil, £21; Dresser (extra fee), £21. For three years (at one payment), Surgeon's pupil, £26 5s.; Dresser (extra fee), £26 5s. Dressers reside in the House in weekly rotation. Physician's pupil, for six months, £8; one year, £15; eighteen months, £20; perpetual, £25. Clinical Clerks are appointed without extra fee. A Gold Medal and other Prizes are awarded annually. Patients admitted in 1866: In-patients, 2671; out-patients, 20,576; total, 23,247.

BRISTOL GENERAL HOSPITAL.

The Hospital contains 130 beds. Physicians, Dr. Martyn, Dr. Burder, Dr. Fripp. Surgeons, Mr. Coe, Mr. W. M. Clarke, Mr. Lansdown, Dr. H. Marshall. Physician-Accoucheur, Dr. Swayne. Two Scholarships of £15 each are awarded annually, and a Prize of Twenty Guineas is given to the Hospital Student who is successful in the third year's Competition at the School.

Fees.—Medical or Surgical Practice, for six months, £6; one year, £10; perpetual, £20. Extra fee for Dresser or Clinical Clerk, £5 5s. Dressers reside in the House in weekly rotation. Library fee, £1 1s. per annum.

HULL AND EAST-RIDING SCHOOL OF MEDICINE AND ANATOMY, KINGSTON-SQUARE, SESSION 1867-68.

The Winter Session will commence on Tuesday, October 1, 1866. Anatomy, Physiology, and Pathology, Mr. R. M. Craven, daily at 8 a.m. Sessional Course, £5 5s.; Perpetual Course, £8 8s. Anatomy and Anatomical Demonstrations, Mr. Nicholson, daily at 5 p.m. Sessional Course, £4 4s.; Perpetual Course, £7 7s. Principles and Practice of Medicine daily at 3 p.m., £5 5s. Principles and Practice of Surgery, Dr. King, Tuesday, Thursday, and Saturday, at 4 p.m. Sessional Course, £3 3s. Chemistry, Mr. Walton, Tuesday, Wednesday, Thursday, and Friday, at 8 p.m. Sessional Course, £4 4s.

Summer Session, commencing May 1, 1868. Midwifery and Diseases of Women and Children, Mr. Henry Gibson, daily at 7 a.m. Sessional Course, £4 4s.; Perpetual Course, £6 6s. Materia Medica and Therapeutics, Mr. Holden and Mr. Henson, daily at 8 a.m. Sessional Course, £5 5s.; Perpetual Course, £7 7s. Forensic Medicine, Dr. Munroe, F.L.S., Monday, Wednesday, Friday, and Saturday, at 3 p.m. Sessional Course, £3 3s. Botany, Mr. Niven, Monday, Wednesday, Friday, and Saturday, at 3 p.m. Sessional Course, £3 3s. Perpetual Chemistry, Mr. Walton. Sessional Course, £2 2s. Perpetual to all the Lectures except Chemistry, £42. Clinical Lectures are given at the Hospital twice a week. Perpetual Fee for attendance on the Medical and Surgical Practice, £21. Clinical Lectures, £1 1s. Application for Tickets may be made to Mr. R. M. Craven.

LEEDS SCHOOL OF MEDICINE.

The Winter Session will commence on Monday, October 1, 1867. Physiology, General Anatomy, and Pathology, by Messrs. W. Hall and T. R. Jessop. Anatomy, by Messrs. J. Seaton, R. T. Land, and J. A. Nunneley. Demonstrators of Anatomy, Messrs. Seaton, Land, and Nunneley. Assistant Demonstrators, Messrs. Oglesby and Wright. Demonstrator of Pathology, Mr. Jessop. Surgery, by Messrs. Hey, Wheelhouse, and T. P. Teale, jun. Chemistry, by Mr. Scattergood and Mr. J. C. Wilson. Principles and Practice of Physic, by Dr. Chadwick, Dr. Heaton, and Dr. Allbutt. Clinical Medicine, by Dr. Chadwick, Dr. Heaton, and Dr. Allbutt. Clinical Surgery, by Mr. S. Hey, Mr. Nunneley, Mr. Wheelhouse, and Mr. T. P. Teale, jun. Summer Session, 1868, commencing May 1.—Materia Medica and Therapeutics, by Dr. Allbutt. Midwifery, by Mr. Price and Mr. W. Hall. Forensic Medicine and Toxicology, by Dr. P. Smith. Botany, by Mr. Atkinson. Practical Chemistry, by Mr. J. C. Wilson. Comparative Anatomy, by Mr. Wheelhouse and Dr. Allbutt. Operative Surgery, by Messrs. Hey, Wheelhouse, and Teale, jun. Fee to all the Courses required by the Examining Bodies, except Practical Chemistry and Comparative Anatomy, £42. Silver and Bronze Medals, Books, and Certificates of Honour are awarded. Clinical Lectures will be given at the General Infirmary.

Two Clinical Prizes of £10 each, a Forensic Medicine Prize

of £10, and two Chemical Scholarships, are awarded to Students.

Clinical Clerkships and Dresserships.—Two Resident Medical Officerships, six Clinical Clerkships, and eight Dresserships are awarded by the Physicians and Surgeons to the General Infirmary.

The fees for attendance upon the Medical Practice of the Infirmary, or upon the Surgical Practice, are as follows, being the same in each case:—One Winter Session, £7 7s.; one Summer Session, £6 6s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21; perpetual, £26 5s.

Further information may be obtained from the Secretary of the School, Mr. Atkinson.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The Introductory Address will be delivered on October 1, 1867, at 3 p.m., by Mr. A. B. Steele.

Hospital Practice, Royal Infirmary.—Physicians, Dr. Vose, Dr. Turnbull, Dr. Inman. Surgeons, Mr. Stubbs, Mr. Bickersteth, Mr. Hakes. House-Surgeons, Mr. Pusey and Mr. Baron. Pathologist, Dr. Rawdon. Dental Surgeon, Mr. Snape.

Terms for Hospital Attendance and Clinical Lectures:—

	Medical Practice.	Surgical Practice.
For Six Months . .	£5 5 0	£5 5 0
One Year . .	9 9 0	9 9 0
The Second Year .	6 6 0	6 6 0
The Third Year .	5 5 0	5 5 0
Perpetual . . .	18 7 6	18 7 6

Lectures, Winter Session.—Medicine, Dr. Cameron. Surgery, Mr. Bickersteth. Physiology, Dr. Waters. Anatomy, Mr. Harrison. Dissections, Dr. Roberts and Dr. Glynn. Chemistry, E. H. Birkenhead, D.Sc.Lond.

Lecturers, Summer Session. — Midwifery, Mr. Steele. Diseases of Children, Dr. Gee. Materia Medica, Dr. Nevins. Medical Jurisprudence, Dr. E. Whittle. Toxicology and Practical Chemistry, Dr. Birkenhead. Botany, Dr. Roberts. Ophthalmic Medicine and Surgery, Dr. Hibbert Taylor. Pathological Anatomy, Dr. Rawdon. Comparative Anatomy and Zoology, Dr. Davidson.

Exhibitions.—Royal Infirmary Medical Scholarship—value £42—consisting of Gold Medal, value £10 10s., and Six Months' Free Board and Residence, with Clerkship and Dressership, in the Royal Infirmary.—Four Exhibitions—value £31 10s. each—consisting of Six Months' Free Board and Residence in the Royal Infirmary.

The Fee for all the Lectures required by the College of Surgeons and Physicians and the Apothecaries' Hall is £42, payable in advance.

LIVERPOOL NORTHERN HOSPITAL.

Physicians, Dr. Waters and Dr. Roberts. Surgeons, Mr. Manifold, Mr. Lowndes, and Mr. Reginald Harrison. Junior Surgeon, Mr. Branson Nash.

The Hospital contains 134 beds, and attendance on the Practice qualifies for all the Examining Boards.

Fees for Hospital Practice.—Perpetual, 30 guineas; one year, 12 guineas; six months, 9 guineas. For either Medical or Surgical Practice separately, half the foregoing fees. For further particulars apply to the House-Surgeon, Mr. Bradley.

MANCHESTER ROYAL SCHOOL OF MEDICINE AND SURGERY, FAULKNER-STREET.

The Winter Session will commence October 1, with an Introductory Address by Dr. Thorburn.

Winter Session, 1867-68.—Physiology, by Mr. Smith. Descriptive Anatomy, by Mr. Lund and Mr. Bradley. Practical Anatomy, by Mr. S. M. Bradley. Chemistry, by Mr. Stone. Principles and Practice of Medicine, by Dr. Roberts and Dr. Morgan. Principles, Practice, and Operations of Surgery, by Mr. Southam. Anatomy, Physiology, and Pathology of the Eye, by Mr. Hunt.

Summer Session.—Midwifery and Diseases of Women and Children, Dr. Thorburn. General Pathology and Morbid Anatomy, by Dr. Simpson. Materia Medica, Medical Botany, and Therapeutics, by Mr. Somers. Forensic Medicine, by Mr. Harrison. Botany, by Mr. Grindon. Practical Chemistry, by Mr. Stone. Comparative Anatomy, by Mr. Bradley.

Perpetual fee to the whole of the Lectures required to qualify for Examination at the London University, the Royal Colleges of Physicians and Surgeons, and the Apothecaries' Company, £42.

Hospital Practice at the Royal Infirmary, where Clinical Lectures are regularly delivered by the Physicians and Surgeons of the Institution.

Scholarships.—In addition to prizes, amounting to 33 guineas, for general proficiency, Three Scholarships for perpetual Students will be offered for competition—one of £20 for third year's Students; one of £15 for second year's Students; one of £10 for first year's Students.

Further particulars may be obtained from Mr. Southam.

COLLEGE OF MEDICINE, NEWCASTLE-UPON TYNE.

Winter Session, commencing October 1, 1867.—Anatomy and Physiology, Dr. Murray. Anatomy, Dr. Nesham, Mr. Armstrong, and Mr. Russell. Medicine, Dr. Charlton and Dr. Embleton. Surgery, Dr. Heath. Chemistry, Mr. Marreco.

Summer Session.—Midwifery, Dr. Gibson. Botany, Mr. Thornhill and Dr. Arnison. Medical Jurisprudence, Dr. Donkin. Materia Medica, Dr. Humble. Practical Chemistry, Mr. Marreco. Operative Surgery, Dr. Heath. Military Surgeon, Sir John Fife. Pathological Anatomy, Dr. Gibb and Dr. Philipson.

Fees for Lectures.—Perpetual Fee for all the Lectures qualifying for the Licence in Medicine, and the Mastership in Surgery, of the University of Durham, the Licence and Membership of the Royal College of Physicians, the Diploma of the College of Surgeons, and the Licence of the Apothecaries Society, and payable on entering to the first Winter Session, £46 4s.

Hospital Practice.—This can be attended at the Newcastle Infirmary, which contains 230 beds. Midwifery at the Newcastle Lying-in Hospital.

Fees for Hospital Practice.—Twelve Months, £7 7s.; Six Months, £5 5s.; Three Months, £4 4s.; Perpetual Fee, £17 17s.; or, if paid by instalments, first year £7 7s.; second year, £6 6s.; third year, £5 5s. These fees also are payable in advance.

Medical Scholarships in the University of Durham.—Four Scholarships, of £25 a year each, tenable each for four years. Two non-resident Clinical Clerkships and four Dresserships are conferred for merit.

College Medals.—At the end of each Session a Silver Medal and Certificate of Honour will be awarded in each of the required classes.

Further particulars may be obtained from Dr. Embleton, Registrar, or Dr. Philipson, Secretary.

SHEFFIELD SCHOOL OF MEDICINE.

The Winter Session will commence October 1, 1867. Lectures.—Anatomy, Descriptive and Surgical, Mr. Skinner and Mr. W. J. Le Tall; Demonstrations of Anatomy, Mr. W. Skinner and Mr. A. Jackson; Physiology, Dr. Mason and Mr. T. H. Morton; Principles and Practice of Medicine, Dr. Elam and Dr. Frank-Smith; Principles and Practice of Surgery, Mr. W. F. Favell and Mr. Parker; Chemistry, Mr. Allen; Dental Mechanics, Mr. G. Mosely; Clinical Medicine, Dr. de Bartolomé, Dr. Elam, and Dr. Law; Clinical Surgery, Mr. Barber, Mr. W. F. Favell, and Mr. Parker. The Summer Session will commence May 1, 1868. Lectures.—Midwifery and Diseases of Women, Dr. Aveling and Dr. Keeling; Materia Medica and Therapeutics, Dr. Young; Medical Jurisprudence and Toxicology, Mr. A. Jackson and Mr. Leeds; Botany, Mr. Birks and Dr. Mason; Metallurgy, Mr. W. Baker; Practical Chemistry, Mr. Allen; Dental Surgery, Mr. Merryweather; Demonstrations of Pathology and Microscopy, Mr. Brown (at the Infirmary); Demonstrations of Operative Surgery, Mr. Favell and Mr. Parker.

Fees.—Anatomy and Physiology, First Course, £6 6s.; Second Course, £4 4s. Practice of Medicine, Practice of Surgery, First Course, £4 4s.; Second Course, £2 2s. each. Chemistry, First Course, £4 4s. Midwifery and Diseases of Women, Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry, First Course, £3 3s. each. Perpetual Fee for attendance on all the Lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £40.

All further information may be obtained upon application to the Honorary Secretary, Dr. W. Frank-Smith.

Sheffield General Infirmary.—Physicians, Dr. de Bartolomé, Dr. Elam, Dr. Law. Surgeons, Mr. Barber, Mr. Favell, Mr. Parker. House-Surgeon, Mr. G. A. Brown.

The Infirmary contains 150 beds for in-patients.

The Fees for Perpetual attendance at the Infirmary are £15 15s. for Medical, £21 for Surgical Practice. For twelve months' Practice, £12 12s.

MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

Chancellor—Lord Brougham. *Vice-Chancellor*—Principal Sir David Brewster, K.H., D.C.L., LL.D. *Rector*—Thomas Carlyle, Esq.

The Session will commence on Monday, November 4, 1867.

The Classes for Medicine will be opened as follows:—Dietetics, Materia Medica, and Pharmacy, on Monday, November 4, at 9 o'clock, Professor Christison, M.D.; Chemistry, on Monday, November 4, at 10 o'clock, Professor Lyon Playfair; Surgery, on Monday, November 4, at 10 o'clock, Professor Spence; Institutes of Medicine, on Monday, November 4, at 11 o'clock, Professor Bennett, M.D.; Midwifery and Diseases of Women and Children, on Monday, November 4, at 11 o'clock, Professor Sir James Y. Simpson, Bart., M.D.; Clinical Surgery (Monday and Thursday), on Monday, November 4, at 12 o'clock, Professor Syme; Clinical Medicine (Tuesday and Friday), on Tuesday, November 5, from 12 to 2 o'clock, Professors Bennett, Laycock, and Maclagan; Anatomy, on Monday, November 4, at 1 o'clock, Professor Turner, M.B.; Natural History, on Monday, November 4, at 2 o'clock, Professor Allman, M.D.; Practice of Physic, on Monday, November 4, at 3 o'clock, Professor Laycock, M.D.; General Pathology, Monday, November 4, at 4 o'clock, Professor Henderson, M.D.; Anatomical Demonstrations, on Monday, November 4, at 4 o'clock, Professor Turner. Royal Infirmary, at noon, daily. Practical Anatomy, under the superintendence of Professor Turner; Practical Chemistry, under the superintendence of Professor Lyon Playfair; Analytical Chemistry, under the superintendence of Professor Lyon Playfair; Practical Physiology, under the superintendence of Professor Bennett.

During the Summer Session Lectures will be given on the following subjects:—Botany, by Professor Balfour, M.D.; Practical Physiology, including Histology, by Professor Bennett; Medical Jurisprudence for Medical and Law Students, by Professor Maclagan, M.D.; Clinical Medicine; Clinical Surgery, by Professor Syme; Comparative Anatomy, by Professor Turner; Anatomical Demonstrations, by Professor Turner; Practical Chemistry and Pharmacy, under the direction of Professor Lyon Playfair; Practical Anatomy, under the superintendence of Professor Turner; Natural History, by Professor Allman; Medical Psychology, with practical instruction at an Asylum, by Professor Laycock.

Matriculation.—Every Student, before entering with any Professor, must produce a Matriculation Ticket for the ensuing Session. Tickets will be issued at the Matriculation Office at the College, every lawful day on and after 7th Oct., from 10 till 4 o'clock. Enrolment in the General Album is the only legal Record of attendance in the University.

For further information apply to the Secretary, at the College.

A Table of Fees may be seen in the Matriculation Office, and in the Reading-room of the Library.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

WINTER SESSION, 1867-68.

The following Courses of Lectures on Medical and Surgical Science, and also those delivered in the University, qualify for Examination for the Diplomas of the Royal Colleges of Physicians and Surgeons. Classes open on Tuesday, November 5:—Surgery, Dr. P. H. Watson. Surgery (1, Surgeons'-square), Dr. Joseph Bell. Surgery (Minto House), Mr. Annandale. Chemistry (School of Arts, Adam-square), Dr. Stephenson Macadam. Practical Chemistry and Analytical Chemistry, Dr. Stevenson Macadam (at Surgeons'-hall). Chemistry (Minto House), Dr. A. C. Brown. Practical Chemistry and Analytical Chemistry, Dr. A. C. Brown (Minto House). Physiology, Dr. Sanders. Medical Jurisprudence (course commences on Monday, November 11), Dr. Littlejohn. Clinical Medicine (Royal Infirmary), Drs. Sanders, Rutherford Haldane, and George W. Balfour; Dr. J. Matthews Duncan (for Diseases of Women). Clinical Surgery (Royal Infirmary), Dr. Gillespie. Anatomy: Anatomical Demonstrations, Dr. P. D. Handyside. Practical Anatomy (will be commenced October 1), Dr. P. D. Handyside. Practice of Physic, Dr. Rutherford Haldane. Practice of Physic (Minto House), Dr. George W. Balfour. General Pathology, Dr. Grainger Stewart.

Practical Instruction.—Royal Infirmary, 12 noon: Perpetual Ticket, at one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d. Separate payments for two years entitle the Student to a perpetual ticket.

Fees—For the first of each of the above Courses, £3 5s.; for the second £2 4s.; perpetual, £5 5s. To those who have already attended a First Course in Edinburgh, the perpetual fee for that Class is £2 4s. The fees for the following Courses are:—Practical Chemistry and Practical Anatomy, £3 3s. Anatomical Demonstrations, £2 2s.; when taken along with Practical Anatomy, £1 1s.; perpetual, £4 4s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for the Session of six months.

During the Summer Session, 1868, the following Three Months' Courses will be delivered:—Midwifery, Dr. Keiller. Midwifery (Minto House), Dr. J. Matthews Duncan. Medical Jurisprudence, Dr. Littlejohn. Materia Medica and Therapeutics, Dr. Angus Macdonald.

The minimum cost of education in the above School for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the Joint Examinations, is £90 4s., which is payable by yearly instalments during the period of study; while the minimum cost for the single qualification of either Physician or Surgeon, including fee for Examination, is £80.

For further information apply to Dr. Stevenson Macadam, Secretary to the Medical and Surgical Schools.

ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for Clinical Instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary Physicians and Surgeons.

Medical Department.—Professors of Clinical Medicine: Dr. Bennett, Dr. Laycock, and Dr. Maclagan. Extra Physicians and Lecturers on Diseases peculiar to Women: Dr. Simpson and Dr. J. Matthews Duncan. Ordinary Physicians and Lecturers on Clinical Medicine: Dr. Sanders, Dr. Rutherford Haldane, and Dr. G. W. Balfour. Pathologist and Special Assistant-Physician: Dr. T. Grainger Stewart.

Surgical Department.—Professor of Clinical Surgery: Mr. Syme. Consulting Surgeon: Dr Dunsmure. Ordinary Acting Surgeons: Mr. Spence, Dr. J. D. Gillespie (Lecturer on Clinical Surgery), and Dr. P. H. Watson. Ophthalmic Surgeon: Mr. Walker. Assistant-Surgeon: Mr. Thomas Annandale. Assistant to Mr. Syme: Dr. Joseph Bell. Assistant to Mr. Walker: Dr. A. D. Robertson. Dental Surgeon: Dr. John Smith.

Hospital Tickets: Perpetual, in one payment, £10; Annual, £5 5s.; Half-yearly, £3 3s.; Quarterly, £1 11s. 6d. Separate payments for two years entitle the Student to a perpetual ticket.

UNIVERSITY OF ABERDEEN.

Faculty of Medicine—Session 1867-68.

Winter Session, commencing on the first Tuesday of November.—Anatomy, Professor Struthers, M.D., £3 3s. Anatomical Demonstrations and Practical Anatomy, Professor Struthers and the Demonstrator, £2 2s. Chemistry, Professor Brazier, £3 3s. Institutes of Medicine, Professor Ogilvie, £3 3s. Surgery, Professor Pirrie, £3 3s. Practice of Medicine, Professor Macrobin, M.D., £3 3s. Midwifery and Diseases of Women and Children, Professor Dyce, £3 3s. Zoology, with Comparative Anatomy, Professor Nicol, £3 3s. Medical Jurisprudence, Professor Ogston, £3 3s.

Summer Session, commencing on the first Monday in May.—Botany, Professor Dickie, £3 3s. Materia Medica (100 Lectures), Professor Harvey, £3 3s. Anatomical Demonstrations and Practical Anatomy, Professor Struthers and the Demonstrator, £2 2s. Practical Chemistry, Professor Brazier, £3 3s.

Matriculation Fee for the Winter and Summer Sessions, £1. For the Summer Session alone, 10s.

Royal Infirmary—Daily.—Perpetual Fee to Hospital Prac-

tice, £6; or First Year, £3 10s.; Second Year, £3. Clinical Medicine and Clinical Surgery—each £3 3s.

For further information, apply to Dr. Macrobin, Dean of the Faculty of Medicine.

UNIVERSITY OF GLASGOW.

Faculty of Medicine.—The Classes open for the Winter Session on Tuesday, October 29, 1867.

Chemistry, Practical Chemistry, and Chemical Laboratory, Dr. Anderson, £3 3s. Natural History, Dr. Young, £3 3s. Practice of Physic, Dr. Gairdner, £3 3s. Anatomy, Anatomical Demonstrations, and Practical Anatomy, Dr. Allen Thomson and Demonstrator, £8 8s. Materia Medica, Dr. Cowan, £3 3s. Forensic Medicine, Dr. Rainy, £3 3s. Surgery, Mr. Lister, £3 3s. Midwifery, Dr. Pagan, £3 3s. Institutes of Medicine, Dr. A. Buchanan, £3 3s. Clinical Medicine and Clinical Surgery, Physicians and Surgeons of Royal Infirmary.

Further information may be obtained from the Registrar of the University.

ANDERSON'S UNIVERSITY, GEORGE-STREET, GLASGOW.

Winter Session 1867 opens October 29.

Chemistry, Practical Chemistry, and Laboratory, Dr. Penny; Surgery, Dr. G. H. B. Macleod; Institutes of Medicine (Physiology), Dr. E. Watson; Anatomy, Anatomical Demonstrations, Practical Anatomy, or Dissection, Dr. G. Buchanan; Practice of Medicine, Dr. M'Call Anderson; Materia Medica, Dr. Morton; Hospital Practice in Royal Infirmary; Clinical Lectures in Royal Infirmary.

Summer Session.

Botany, Mr. Hennedy; Midwifery, Dr. J. G. Wilson; Medical Jurisprudence, Dr. Leishman; Surgical Anatomy, Practical Anatomy, Osteology for beginners, Dr. George Buchanan; Practical Chemistry, Dr. Penny; Operative Surgery, Dr. G. H. B. Macleod.

Class Fees.—For each of the above Courses of Lectures, first Session, £3 2s.; second Session £1 1s.; afterwards free.

Anatomy Class Fees.—For both Courses (Lectures and Demonstrations), first Session, £4 4s.; second Session, £4 4s.; Perpetual, £8 8s.

Practical Anatomy.—The Dissecting-room is free for two Sessions to those who attend both Courses of Anatomy. After the second year the fee for Practical Anatomy is £1 1s. per Session.

The Fees for all the Lectures and Hospital Practice required of Candidates for the Diplomas of Physician and Surgeon amount to £40.

GLASGOW ROYAL INFIRMARY.

Number of beds, 547.

Physicians, Dr. Orr, Dr. Gairdner, Dr. Leishman, Dr. Steven; Fever Physician, Dr. Perry; Surgeons, Dr. G. Buchanan, Mr. Lister, Dr. E. Watson, and Dr. Donald Dewar.

Besides the Clinical instruction given at the bedside, Lectures on the Cases are given four times weekly, at Nine a.m., during the Winter and Summer Sessions. Clinical Medical Lectures on Mondays and Thursdays. Clinical Surgical Lectures on Tuesdays and Fridays.

Fees, admitting to the Medical and Surgical Practice and the Clinical Lectures—Perpetual, £10 10s.; or, for one year, £5 5s.; for second, £5 5s.; for third, £1 1s.; and afterwards free.

Dispensary.—Physicians, Dr. M'Laren and Dr. J. Stewart. Surgeons, Dr. G. H. B. Macleod and Dr. J. Dunlop.

Superintendent, Dr. Moses Thomas.

SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.

The School was established by Act of Parliament 40th George III., and is under the joint government of the Board of Trinity College and the King and Queen's College of Physicians.

Institutes of Medicine, Professor Law. Materia Medica and Pharmacy, Professor A. Smith. Surgery, Professor R. Smith. Anatomy and Chirurgery, Professor Macdowel. Practical Anatomy, Dr. Bennett. Chemistry, Professor Apjohn. Practice of Medicine, Professor Banks. Midwifery, vacant. Botany, Dr. Alexander Dickson. Medical Jurisprudence, Professor Travers. Hospital Practice and Clinical Lectures at Sir Patrick Dun's Hospital.

SIR PATRICK DUN'S HOSPITAL.

Consulting Physician, William Stokes, M.D., Regius Professor of Physic. Consulting Surgeon, Robert Adams, M.D., M.Ch., University Professor of Surgery. The Clinical Lectures in Medicine and Surgery are delivered by Physicians Robert Law, M.D., King's Professor of the Institutes of Medicine; John T. Banks, M.D., King's Professor of the Practice of Medicine; Aquilla Smith, M.D., King's Professor of Materia Medica and Pharmacy. Surgeons, Benjamin G. M'Dowel, M. D., M. Ch., University Professor of Anatomy and Chirurgery; Robert W. Smith, M.D. and M.Ch., Trinity College Professor of Surgery; Edward H. Bennett, M.D., M.Ch., University Anatomist. Each of the Physicians and Surgeons attends for three months in succession. The Physicians and Surgeons attend for Clinical Instruction on alternate days. An attendance of nine months in this Hospital is required for the degree of M.B. in the University of Dublin.

Hospital Fee for twelve months, including nine months' Clinical Lectures:—First year, 12 guineas; second year, 9 guineas; third year, 6 guineas. Attendance on this Hospital is recognised by all Licensing Bodies.

THE QUEEN'S UNIVERSITY IN IRELAND—QUEEN'S COLLEGE, BELFAST, FACULTY OF MEDICINE.

The Lectures will commence on Friday, November 1. Anatomy and Physiology, Dr. P. Redfern. Chemistry, Dr. Thomas Andrews. Practice of Medicine, Dr. James Cuming. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. W. Burden. Medical Jurisprudence, Dr. J. F. Hodges. Natural Philosophy, vacant. Zoology and Botany, Dr. Wyville Thomson. The Demonstrations in Anatomy are delivered by Dr. Burden. The Course of Botany will commence in May.

Fees.—Anatomy and Physiology—First Course, £3; each subsequent Course, £2. Anatomical Demonstrations and Practical Anatomy—Each Course, £3. Practical Chemistry—£3. Other Medical Lectures—First Course, £2; each subsequent Course, £1.

Two Medical Scholarships are awarded to the Students of each year of the Medical course. The Examinations commence on October 17.

Belfast General Hospital.—Fees for Clinical Instruction—First year, £4 4s.; second year, £3 3s.; third year, £2 2s.; for two years in advance, £6 6s. Hospital Fee, £1 1s. per annum. Three Resident pupils are appointed by examination.

Belfast Lying-in Hospital.—Fee for the Session, £3 3s.

QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.—Session 1867-68.

Anatomy, Physiology, and Practical Anatomy, Dr. J. H. Corbett. Practice of Medicine, Dr. C. O'Connor. Practice of Surgery, Dr. W. Tanner. Materia Medica, Dr. P. O'Leary. Midwifery, Dr. J. R. Harvey. Natural Philosophy, Mr. John England. Chemistry and Practical Chemistry, Dr. J. Blyth. Zoology and Botany, Dr. J. R. Greene. Modern Languages, Mr. R. De Vericour. Clinical Medicine and Clinical Surgery, at the North and South Infirmaries, by the Physicians and Surgeons of these Institutions. Clinical Midwifery, at the Lying-in Hospital. The Medical Session will be opened on Monday, November 4, 1867, and the Lectures will commence on the same day.

Eight Scholarships, value £25 each, are awarded to Students of Medicine.

For further information apply to Mr. Robert John Kenny, Registrar.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Brown. Demonstrator, Dr. Brereton. Materia Medica and Medical Jurisprudence, Mr. S. M'Coy. Midwifery and Diseases of Women and Children, Dr. R.

Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. Logic and Mental Philosophy, Dr. T. W. Moffett. The County Galway Infirmary, Town, and Union Hospitals are in the immediate vicinity of the Queen's College. They are visited every morning by Professors of the College, who deliver Clinical Lectures.

Eight Scholarships of the value of £25 each, and Exhibitions varying in value from £10 to £18, are appropriated to Students pursuing the Course for the Degree of M.D.

Fees.—Anatomy and Physiology, £3, First Session; afterwards £2. Practical Anatomy, £3—Practical Chemistry, £3—Operative Surgery, £3—Other Classes, £1 for each Course extending over one Term only—£2 for each Course extending over more than one Term—and £1 for each re-attendance on the same. The College Session is divided into three Terms. The first Term commences on October 15, 1867, and ends on December 23, 1867.

For further information apply to the Registrar, W. Lupton, M.A.

ROYAL COLLEGE OF SURGEONS IN IRELAND—SCHOOL OF SURGERY.—Session 1867-68.

The public Lectures and the usual Winter Course will commence on Monday, October 28. Anatomy and Physiology, Dr. Mapother. Descriptive Anatomy, Dr. Bevan and Mr. Morgan. Surgery, Mr. Hargrave and Dr. J. S. Hughes. Practice of Medicine, Dr. Benson. Chemistry, Dr. Barker. Materia Medica, Dr. Macnamara. Midwifery, Dr. Sawyer. Medical Jurisprudence, Dr. Geoghegan. Practical Chemistry, Dr. Barker. Botany, Dr. Minchin. Hygiene, Dr. Mapother. Dissections under the direction of the Professors of Anatomy and the Demonstrators, Drs. Croly, Stoney, MacAllister, Hewitt, Knox, and Roe, commence on Tuesday, October 1.

The Summer Session commences in April and terminates in July, including Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry, and Hygiene.

The fee for each of the above Courses is £3 3s., except Comparative Anatomy, which is free. Practical Instruction in Operative Surgery is given by the Professors of Surgery, separate from the Surgical Lectures. Fee, £5 5s.

For further information application to be made to the Registrar, Mr. John Brennen, at the College.

DR. STEEVEN'S HOSPITAL, DUBLIN,

Contains 250 beds, with distinct Wards for Fever, Syphilis, Diseases of the Eye, and Diseases of Females; there is also in connexion with the Hospital a Maternity Department, and an extensive Dispensary for Out patients. Systematic Courses of Lectures are delivered during the Winter and Summer Sessions on all the subjects required by the Colleges, Halls, and the Public Service. Physicians, Dr. Freke and Dr. Burke. Obstetric Physician, Dr. Hardy. Dental Surgeon, Mr. Baker. Surgeons, Mr. Colles, Mr. Hamilton, Mr. M'Donnell. Professors: Anatomy and Physiology, Mr. Hamilton; Medicine, Dr. Freke; Surgery, Mr. Colles; Midwifery, Dr. Hardy; Chemistry, Dr. Aldridge, Dr. Cameron. Descriptive Anatomy, Mr. M'Donnell. Demonstrations, Drs. Tyner, Swan, Shortt, and Bookey. Botany, Dr. E. Percival Wright. Medical Jurisprudence, Dr. J. F. Pollock. Materia Medica, Dr. Grimshaw. Natural Philosophy, Dr. J. Aldridge. Clinical Lectures by the Physicians and Surgeons. There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils as dressers. Fee—Winter, six months, £21; Summer, six months, £15 15s. The Sessional Courses of Lectures will commence on the first Monday in November. Fees, each Course—Hospital, £7 7s.; Lectures, £3 3s. Perpetual to both Hospital and School, 75 guineas, payable in two instalments. Two Midwifery Assistantships, salary £30 per annum, are each year awarded by competitive examination.

Further particulars on application to Dr. Tyner, at the Hospital; or to Dr. E. Hamilton.

THE ADELAIDE HOSPITAL, PETER-STREET, DUBLIN.

Physicians, Dr. H. H. Head and Dr. James Little. Surgeons, Dr. A. J. Walsh, Dr. J. K. Barton, Mr. B. Wills Richardson, and Dr. A. Macalister. Assistant-Physician, Dr. W. G. Smith.

The Winter Session of this Hospital commences the first Monday in October. It contains 100 beds, and two of the wards are devoted to the Special Diseases of Infants and Children. There is a detached Fever Hospital for the treatment of Contagious Diseases.

Clinical Instruction.—Two Medical and two Surgical Lectures, including Lectures on the Diseases of the Eye, will be delivered in each week. Practical Demonstrations in the use of the Stethoscope, Laryngoscope, and Microscope, as applied to the Diagnosis of Disease, will be given during the Session. Ophthalmoscopic Demonstrations every Saturday.

Fees, for Nine Months' Hospital Attendance, £8 8s.; for Six Months' Hospital Attendance, £6 6s.; for Summer Three Months' Hospital Attendance, £3 3s.; Perpetual Pupils (paid at entrance), £21.

Prizes.—Two Medical and two Surgical Prizes will be given at the close of the Session.

Further particulars can be obtained from Dr. Little, or any of the other Physicians or Surgeons.

CARMICHAEL (FORMERLY RICHMOND HOSPITAL) SCHOOL OF MEDICINE.—Session 1867-68.

The Winter Courses of Lectures will commence on Friday, November 1. The following are the courses of Lectures:—Theory and Practice of Surgery, and Operative Surgery, Mr. W. Stokes, 12 o'clock, Monday, Wednesday, and Friday; Theory and Practice of Medicine, Dr. Cruise and Dr. Gordon, 12 o'clock, Tuesday, Thursday, and Saturday; Anatomy and Physiology, Mr. Curran, 1 o'clock, daily; Anatomy, Descriptive, Practical, and Surgical, Dr. Corley, 11 o'clock, daily; Chemistry, Theoretical and Practical, Dr. Davy, 2 o'clock, Tuesday, Thursday, and Saturday; Midwifery, and Diseases of Women and Children, Dr. Jennings, 2 o'clock, Monday, Wednesday, and Friday. Dissections are superintended by Messrs. Curran, Corley, Purser, Shaw, and Madden.

Carmichael Premiums.—Premiums to the value of sixty pounds, on the foundation of the late Richard Carmichael, Esq., and the "Mayne" Scholarship, value fifteen pounds, are awarded at the termination of the Session.

Summer Session.—Lecturers—Botany, Dr. Campbell; Materia Medica and Pharmacy, Dr. Frazer; Medical Jurisprudence, Dr. O'Reilly; Practical Chemistry, Dr. Davy.

Fees.—The Fee for each Course of Lectures delivered at this School is Three Guineas. The Fees for all the Courses of Lectures required in order to obtain the Diploma of the Dublin College of Surgeons amount to £63; but, in accordance with the regulations of the Dublin Medical Schools, a discount, amounting to £9 19s. 6d., is allowed in the case of Perpetual Pupils Perpetual Pupil's Fee to both Hospital and School, £78 0s. 6d.

LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER-STREET, DUBLIN.

Founded 1810.

Anatomy, Physiology, and Pathology, etc., Mr. E. Ledwich and Mr. T. P. Mason. Theory and Practice of Surgery, Mr. Wharton. Surgical and Descriptive Anatomy, Demonstrations and Dissections, Messrs. Bright, Glanville, and O'Leary. Theory and Practice of Medicine, Dr. W. Moore. Midwifery and Diseases of Women and Children, Dr. J. Ringland. Materia Medica and Therapeutics, Dr. H. Minchin. Forensic Medicine and Hygiene, Dr. R. Travers. Theory of Chemistry, Practical Chemistry, and Natural Philosophy, Dr. Cameron. Botany, Dr. C. Asken.

A Course of Operations to be performed by the Student, under the superintendence of the Lecturers (subjects, etc., included), £5 5s.

Certificates of attendance on these Lectures are received by Trinity College, Dublin, and all the Examining Boards.

The Fee for each of the above Courses will be £3 3s.

Further information may be obtained from any of the Lecturers, or from Edward Ledwich, Secretary.

THE CITY OF DUBLIN HOSPITAL

is situated in Upper Baggot-street, about ten minutes' walk from the Royal College of Surgeons and the Medical School of Trinity College, and twelve from the Ledwich School and School of the Catholic University. The Physicians, Surgeons, and Assistant-Physicians are, with three exceptions, either Professors or Demonstrators in the School of the Royal College of Surgeons in Ireland. The Hospital contains 104 beds, and accommodates about 800 intern patients annually. There are special wards for ophthalmic diseases, on which subject a

special course of lectures is delivered by Dr. Jacob, and for diseases of children. A new wing has been lately opened for the reception of fever and other infectious diseases. The "Purser" Studentship of £20 per annum (with apartments) is obtainable by competitive examinations by all Students, and a special certificate is granted. The Fees for Hospital attendance are—nine months, £8 8s.; six months, £6 6s.; summer three months, £3 3s.; perpetual, £21. For further particulars, see our advertising columns.

☞ No returns have been received from the Catholic University, Dublin, and St. Mark's Ophthalmic Hospital, Dublin.

DAYS AND HOURS OF INTRODUCTORY LECTURES

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS IN THE METROPOLIS.

	Days and Hours.	
St. Bartholomew's Hospital and Medical College	Oct. 1, 5	Dr. Odling.
Charing-cross Hospital and Medical Coll.	„ 1, 3	Mr. Canton.
St. George's Hospital Medical School	„ 1, 2	Mr. Holmes.
Guy's	„ 1, 2	Mr. A. E. Durham.
King's College Medical Department	„ 1, 3	Dr. Miller.
London Hospital Medical College	„ 1, 4	Dr. Letheby.
St. Mary's Hospital Medical School	„ 1, 8	Dr. Broadbent.
Middlesex Hospital Medical College	„ 1, 3	Dr T. Spencer Cobbold.
St. Thomas's Hospital Medical College	„ 1, 3	Mr. Solly.
University College Faculty of Medicine	„ 1, 4	Dr. Grailly Hewitt.
Westminster Hospital & Medical School	„ 1, 8	Mr. Teevan.

IN THE PROVINCES.

	Days and Hours.	
Birmingham—Queen's College Medical School	Oct 1, 3	Mr. O. Pemberton.
Birmingham—Sydenham College	„ 2, 3	Mr. W. Bates.
Leeds School of Medicine	„ 1, 12	Mr. T. P. Teale.
Liverpool Royal Infirmary and School of Medicine	„ 1, 3	Mr. A. B. Steele.
Manchester Royal School of Medicine	„ 1, 12	Dr. Thorburn.
Newcastle-upon-Tyne College of Medicine	„ 1, 2	Dr. T. Hurable.
Sheffield Medical School	„ 1, 8	Mr. W. Baker.

The Bristol Medical School commences on Tuesday, October 1. There is no Introductory Lecture, but in place of it an Address is given at the close of the Session.

HOSPITALS, ETC., FOR SPECIAL INSTRUCTION.

At Downing College, Cambridge, every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of £200, and are tenable for twelve years. They are not vacated by marriage, and the Fellows are not required to reside. The next election will take place in 1867. A Foundation Scholarship(a) of £50 per annum (in some cases with rooms and commons) is awarded annually for distinction in natural science, tenable until the B.A. degree, and in case of special merit for three years longer. Minor Scholarships of £10 per annum, tenable for two years, are offered each year for competition before entrance, and in awarding one of these considerable weight is given to proficiency in Natural Science.

Pharmaceutical Society of Great Britain, 17, Bloomsbury-square, W.C.—School of Pharmacy.—Session 1867-68.—The Session will commence on Tuesday, October 1, and extend to the end of July. Chemistry and Pharmacy, Professor Redwood; Botany and Materia Medica, Professor Bentley. The first and second parts of this course, extending over the winter months, will be delivered at 17, Bloomsbury-square. The third part of the course, on Systematic Botany, will be delivered at the Royal Botanic Gardens, Regent's-park. Fee: For Registered Apprentices and Associates of the Society, for either of the above Courses, One Guinea; for either part separately, Half-a-Guinea. For those not connected with the Society, Two Guineas for either of the above courses; One Guinea for either part separately. Laboratory: The suite of Laboratories for Practical Instruction in General and Pharmaceutical Chemistry will be opened on Tuesday, October 1, under the direction of Professor Attfield. Fee for the entire Session of ten months, Twenty-five Guineas. The Laboratories are open from half-past nine a.m. till five p.m. Students can enter at any period during the Session. Two Scholarships (the Jacob Bell Memorial Scholarships) of Thirty Pounds a year each, are open to competition annually in July. The Board of Examiners meet monthly to grant certificates of Competency. For further information, apply to Mr. Bremridge, Secretary and Registrar.

City of London Hospital for Diseases of the Chest, Victoria-park.—Office, 3, Finsbury-circus, E.C.—Consulting-Surgeon—J. Hilton, F.R.S. Physicians—T. B. Peacock, M.D., J. R. Bennett, M.D., E. L. Birkett, M.D., G. N. Edwards, M.D., S. H. Ward, M.D. Assistant-Physicians—J. Andrew, M.D., J. C. Thorowgood, M.D., H. G. Sutton, M.B., S. Fenwick, M.D., A. B. Shepherd, M.B. Junior Assistant-Physicians—C. Baumler, M.D., W. Rickards, M.D. Resident Medical Officer—Mr. W. H. Power. The Hospital affords accommodation for 120 in-patients. During the last year 641 cases were under treatment in the wards, and 14,223 were relieved as out-patients. In-patients admitted since the wards were opened in 1855, 4880; out-patients admitted since the establishment of the Institution in 1848, 137,800. Information respecting Medical instruction at the Hospital may be obtained on application to the Physicians.

Great Northern Hospital Caledonian-road, N.—Consulting Physician—Dr. Copland, F.R.S. Consulting Surgeon—Mr. Skey, F.R.S. Physicians—Dr. Leared, Dr. Hardinge, Dr. Cholmeley, Dr. F. C. Webb, Dr. Jephson, Dr. Crucknell. Surgeons—Mr. Gay, Mr. W. Adams, Mr. T. Carr Jackson, Mr. E. C. Hulme, Mr. W. Alflogham, Mr. B. Shillitoe. Obstetric Physician—Dr. C. P. Murray. Diseases of the Eye—Dr. Lawrence. Aural Surgeon—Mr. Harvey. Dentists—Mr Statham, Mr. C. J. Fox. House-Surgeon—Mr. Perry. Operations on Wednesdays at Two o'clock. Medical Practitioners admitted to see the practice of the Hospital on presenting their cards. Cards of admission to the practice of the Hospital will be granted to certified Medical Students on application to the Secretary, at the Hospital.

Royal Orthopædic Hospital, 315, Oxford-street.—Operations, Thursdays, 2 p.m. Lectures are regularly given to Medical Practitioners and Students.

National Hospital for the Paralysed and Epileptic, 23 and 24, Queen-square, Bloomsbury.—The Hospital contains 60 beds. The Physicians attend every Monday, Tuesday, Wednesday, and Friday. Physicians, Drs. Ramskill, Radcliffe, Russell Reynolds, and Hughlings Jackson. Assistant-Physician, Dr. Buzzard. Medical Superintendent, J. N. Radcliffe, Esq. Medical Practitioners and Students will be admitted on showing their cards.

Queen Charlotte's Lying-in Hospital, Marylebone-road.—Instituted 1752. Rebuilt 1856.—Consulting-Physician, Dr. Roget. Consulting-Surgeon, Henry Lee, Esq. Medical Officers for the In-patients, Dr. Blakely Brown, Dr. Brodie. Medical Officers for Out-Patients, J. Cholmondeley, Esq; Dr. Barnes. Secretary, Mr. A. S. Boodle, who attends at the Hospital on Monday from ten to two. Pupils are admitted to reside and board in the Hospital (after having been examined by the Physicians) for periods of not less than six weeks. In 1866, in-patients delivered, 408; out-patients delivered, 438; total, 663. Terms on application at the Hospital.

St. Luke's Hospital for Lunatics, Old-street, E.C. — Resident Medical Superintendent, Dr. James Ellis, who will admit gentlemen to the Medical Practice of the Hospital, and give any information respecting the admission of patients. Fee for the Session of three months, £2 2s.

Hospital Ship "Dreadnought," off Greenwich.—Office, 86, King William-street, E.C.—This institution contains 200 beds, and is established for the relief of seamen of all nations. Casualties from the shore are also received. Residence is provided on board for students and others who may be desirous of studying diseases incidental to tropical climates before entering the service or going abroad. Constant opportunities also occur for the performance of Surgical operations.

National Vaccine Establishment.—Educational station (under the authority of Government), Tottenham-court-road Chapel.—Mr. Simpson, F.R.C.S., 18, Gower-street, W.C., being authorised by the Privy Council to give Certificates of Proficiency in Vaccination, attends as above on Monday and Wednesday, from 1 to 2 o'clock. These Vaccination Certificates are not only required by the College of Surgeons and Apothecaries' Company, but are in part very necessary for obtaining any Poor-law appointment. Fee for the Course, one guinea.

London School of Dental Surgery and Dental Hospital of London, 32, Soho Square, W.—The Winter Session will commence on Wednesday, October 2. Mechanical Dentistry, Mr. B. Stephenson; Metallurgy, Mr. G. H. Makins; Dental Surgery and Pathology, Mr. Cartwright; Dental Anatomy and Physiology, Mr. Ibbetson. Surgeons to the Hospital, Messrs. Ibbetson, Underwood, Tomes, Cartwright, Rogers, and Hepburn. Assistant-Surgeons, Messrs. Fox, Hayward, Canton, Coleman, Gregson, and Hill. Treasurer, Mr. Cartwright.

Metropolitan School of Dental Science and National Dental Hospital, 149, Great Portland-street, W.—The Winter Session will commence on Tuesday, October 8. Dental Surgery, Mr. Hulme; Mechanical Dentistry, Mr. Hockley; Dental Anatomy and Physiology, Mr. Fuller; Metallurgy, Mr. Tribe. Hon. Sec., Mr. Hulme.

Queen's College, Liverpool.—The Session will commence on Monday, October 7. The College is in connexion with the University of London, and its classes comprise the subjects required for the Matriculation, B.A., B.Sc., and preliminary scientific M.B. examinations of that University. Instruction in Practical Chemistry is given in the College Laboratory by Professor Hamilton. Provincial Examinations of the London University are held at Queen's College. Fees: Separate classes, £2 2s. to £4 4s. per Session; Practical Chemistry, £5 5s; course students, £20 per Session.

(a) A Scholarship was this year thrown open to undergraduates of the University, and awarded to Clement Higgins, of Sidney, Sussex College.

PRIVATE TEACHERS IN LONDON.

Dr. Barron gives courses of Medical and Surgical tuition adapted to Students for Professional Examination at his Class-rooms, Muskin's Chambers, Southwark-street, Borough.

Messrs. E. and C. Carter prepare gentlemen for the Preliminary Examinations of the Royal College of Surgeons and Apothecaries' Hall, and for other Examinations in Arts. Address, 6, Milner square, Islington, N.

Dr. Robert Coales, LL.D., M.A., 10, Trinity-square, Borough, prepares Students for the Matriculation, 1st B.Sc (Mathematics and Mech. Phil.) and B.A. Degrees of the University of London, and for the Examination in Arts at the Royal College of Surgeons, Apothecaries' Hall, etc.

Mr. G. Hinr, F.R.C.S., gives, daily, Demonstrations and Examinations at 29, Newman-street, Oxford-street. Hours, from 10 to 11½ a.m., and 6 to 8 p.m.

The Drs. Power continue daily their Instructions for all the Medical Examinations at 32, Queen-square, W.C., but will after the end of this month meet their Classes at their new Lecture-rooms, 8, Red Lion-square, Holborn, W.C.

Dr. Spregall gives instructions to Medical men and Students in all the branches of their studies, at his residence, 2, Southampton-street, Bloomsbury-square.

Mr. Vacher gives instruction in Practical Chemistry at his laboratory, 20, Great Marlborough-street.

Mr. E. B. Goodwin, of Trinity College, Dublin, prepares gentlemen for the Preliminary Examinations at the College of Surgeons, Apothecaries' Hall, etc, at 8, Tyndale-terrace, Canonbury-square, N.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture III.—Part III.

USE OF LONG FORCEPS (*Continued*)—LOCKING—CAUSES OF FAILURE IN LOCKING—EXTRACTION—HOW TO MEASURE THE ADVANCE OF THE HEAD—THE MANŒUVRE OF "SHELLING-OUT" THE HEAD DELAYED AT THE OUTLET—RE-LOCKING—THE HEAD IS SEIZED OBLIQUELY BY THE FORCEPS—TIME REQUIRED FOR EXTRACTION.

Accurate locking is generally evidence that the blades are properly adjusted to the head, and that the pelvis admits of the successful use of the instrument. On the other hand, their not locking is proof of their not being properly introduced, or *of the pelvis not admitting of their application*. In the first case, that of improper introduction, the failure is generally due to neglect in passing the blades exactly in the same diameter of the pelvis—that is, in passing the second blade exactly opposite to the first, so that if the first blade is applied in the left ilium, opposite one end of the transverse diameter, the right does not lie at the opposite end of that diameter. To remedy this error, the blade must be partly or wholly withdrawn and re-adjusted.

In the second case, that of pelvic unfitness, the locking is prevented by the projecting promontory or other deformity, so distorting the pelvic diameters that the two blades cannot find room to lie in the same diameter opposite to each other. It will commonly be found that the blades will pass one on each side of the promontory, the inside of the blade not looking towards its fellow, but towards the opposite foramen ovale, where you cannot get a blade to lie. When you find this happen you must give up the attempt to use the forceps. Pass the hand into the pelvis, if necessary; explore its dimensions and form carefully; and determine between turning and craniotomy. A correlative proposition may here be stated:—*Wherever the long forceps will lock without force, it may be reasonably concluded that the case is a fit one for the trial of this instrument; and a reasonable attempt should be made to deliver by its aid before passing on to turning or perforation.*

3. *The Extraction.*—Get the nurse to press upon the right hip and support the back. Grasp the handles with one hand, and apply the fingers of the other hand to the ring or shoulders at the lock. Draw at first backwards in the axis of the brim, during the pains if any be present, and at intervals of a minute or so if there be none. Concurrently with traction, alternate slight leverage movements may be executed by swaying the handles gently from side to side, always taking care not to press the shanks against the pelvic walls. Each blade is the fulcrum to its fellow. The finger which is used in the ring from time to time gauges the advance of the head.

The advance of the head is measured by the following standards:—First, you feel if the occiput approaches the pubic arch by passing a finger below and behind the pubic bones. Secondly, you sweep your finger round the circumference of the brim, and thus feel if the equator of the head-globe is pressing lower down through the brim. Thirdly, by feeling the direction of the sagittal suture. If you find that it is approaching parallelism with the conjugate diameter, you may be certain that the head is descending. Further evidence is found in the rotation of the forceps. As the head can hardly turn upon its cervico-vertical axis without at the same time descending in the pelvis, if the handles of the forceps are observed to rotate, this rotation, being imparted by the head, is evidence of advance. Again, as the head descends, of course more and more of the shanks and blades will become visible. This, indeed, is open to a fallacy. Allowance must be made for some degree of slipping, which takes place with all the English instruments whose blades have only a moderate bow. And further, when the head is fairly in the pelvic cavity, the blades lose something of that external support which, as explained in Lecture II., Part I., is the chief force in maintaining the grasp upon the head. This is still more marked when the head has partly emerged from the vulva. At this time the blades will be apt to slip away altogether, and it will be necessary to increase the compression on the handles in order to keep your hold. Fourthly, by two or more fingers you measure the space or degree of tightness between the vertex and the floor of the pelvis. At first the

Fig. 19.

Fig. 19.—Showing the long forceps locked, and grasped by the two hands. The head being at the brim, traction is backwards.

Fig. 20.

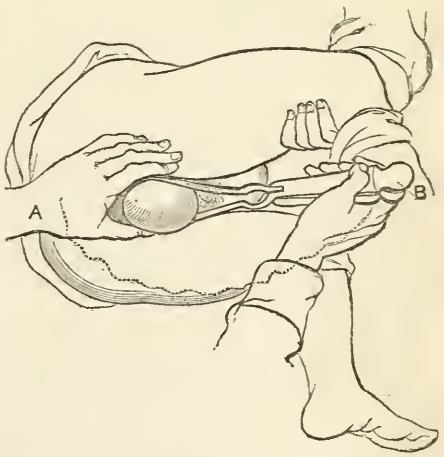


Fig. 20.—Representing the last stage of extraction. The handles have travelled from A to B, so as at last to touch the abdomen. The dotted line shows the course of the handles, and the slight oscillations practised during the descent of the head.

fingers find free space; gradually the vertex leaves no room for the fingers. Then the soft floor of the pelvis, the perinæum, is distended by the advancing vertex; it bulges out; it puts the perinæum tightly on the stretch. The anus is protruded. Fæces are often squeezed out. Indeed, the pressure upon the sphincter ani at this stage sets up reflex action. The call to strain or bear down to expel the pelvic contents, whether uterine or rectal, is uncontrollable. Turbulent expulsive action, then, and defecation, constitute certain signs that the head is advancing. To some extent the increasing scalp-swelling or caput succedaneum may give a false impression that the

cranium itself is descending. But a little practice and attention will correct this error. When the vertex has reached the floor of the pelvis, the handles of the forceps are found to have turned a little upon their axis, to lie more nearly in the transverse diameter of the pelvis. This is the result and the indication of the screw-rotation of the head. You have no hand in producing it. It is effected by the descending head adapting itself to the cavity of the pelvis. The handles may now be directed more forwards during traction. The shanks thus avoid stretching the perinæum, and the traction is in the axis of the outlet. An assistant is now useful in holding up the right knee, so as to leave room for the operator to carry the handles well round the pubes in Carus' curve. Here it is often convenient to push the handles forwards rather than to pull. This action is seen in Figure 20.

During extraction it occasionally happens that the blades will lose their hold, that the handles will twist in opposite directions, and thus unlock. This is generally owing to the operator carrying the handles forward too early. The effect of this is to throw the blades off the head-globe over the face. It is another illustration of the law that the position of the forceps is determined by the relation of the head to the pelvis, and that if you reverse the order by attempting to make the forceps alter this relation you are immediately at fault. The remedy is to carry each handle well back again towards the perinæum, when they will re-lock.

If the head is in the genital fissure, and there is sufficient uterine energy, you may proceed to the

4th Act. The Removal of the Blades.—If the head should not be propelled, you may often assist it by a manœuvre which it is well to understand. You apply the palms of both hands one on either side and behind to the perinæum distended by the head; and bearing upon this structure so as to press it a little backwards, whilst the head is pushed forwards towards the pubic arch, the head is, as it were, shelled out by being made to complete its movement of extension. Steady pressure by the hands of an assistant or by a binder upon the fundus uteri will much assist the extension of the head. In this manner I once extricated myself and my patient from an awkward predicament. I had been summoned into the country without knowing the nature of the case, and had no instruments. I found a lady who had been many hours in labour, the head on the perinæum, and no pains. The lever or the forceps would have delivered her in a minute. Neither was to be had. But the manœuvre I have described perfectly succeeded, and put an end to a state of extreme anxiety, and even danger.

Another manœuvre is occasionally serviceable. This is to pass a finger into the rectum, so as to get a point of pressure upon the forehead. In this way it is sometimes possible to bring the face downwards, to start the extension movement, and thus to extricate the head delayed at the outlet. And if at the same time firm downward pressure be made upon the breech through the fundus, as described in the first lecture, the force propagated through the spine will aid materially in giving the extension movement. This combination of the principles of "pushing," of leverage, and of "shelling-out," may in certain cases enable you to deliver without resorting to the forceps or lever.

When the blades are adjusted, they will not lie exactly in the transverse diameter of the pelvis. The head, lying between the transverse and right oblique diameter, will tend to throw off the blades towards the opposite or left oblique diameter. The head then will be seized obliquely, one blade grasping the right brow, the other the left occiput. This is clearly demonstrated by the impressions of the fenestræ left on the scalp. The blades naturally find their way into this position if they are introduced gently. One tendency of this oblique seizure is to assist the head in its axial rotation, face sacrumwards, as it descends into the pelvis. It is also an answer to an objection urged against the use of the long forceps at the brim—namely, that by seizing the head in its long or fronto-occipital diameter, compression in this direction makes the opposite or bi-parietal diameter bulge out, thus increasing the difficulty of passing the small or conjugate diameter of the pelvis. In most cases the objection is theoretical only—it is mainly based upon experiments made on the dead fœtus on the table.

Elongation or moulding, we have seen, is the result of gradual compression of the equatorial zone. Now the pelvis and the forceps together constitute the compressing ring. Pressure, then, upon the transverse diameter of the head by the opposing points of the sacrum and pubes, simultaneously with pressure upon the longitudinal diameter between the blades of the forceps, tends to *diminish both diameters* by lengthening out the head. Of course it must be understood that the pelvic contraction is of moderate degree only—in short, that the case is a proper one for the forceps. If the conjugate diameter be less than 3·25 inches, the prospect of effecting the desired elongation within a reasonable time is greatly diminished.

I have said that the head is very rarely seized exactly in its longitudinal diameter. An exception occurs in the case of the very flat pelvis, in which there is conjugate contraction with very little projection of the promontory. In this case the head will lie very nearly in the transverse diameter. If, in presumed contraction of the brim, the marks of the blades are on the brow and side of the occiput, the projection of the promontory is not great.

The Time required for Extraction.—If the head be delayed in the cavity of the pelvis for want of expulsive action, or because it rests upon the ischia, maintaining a too near approach to the transverse diameter, and there is no marked hindrance on the part of either the anterior or posterior valve, it is generally sufficient to use slight traction and oscillation for a few minutes. As soon as the head is started by the forceps, the uterus takes up its work, helps the operator, and the labour is quickly over.

If the uterine and perinæal valves obstruct the passage of the head, a little more time and caution are required.

If the head has to be seized at the brim on account of delay from want of uterine action, time may often be saved by placing the patient on her back, and supporting the uterus against the spine by the hands of an assistant or a binder. This proceeding, by adjusting the axis of the uterus to that of the brim, will greatly facilitate the entry of the head and encourage the action of the uterus. If there is no obstacle from narrowing of the pelvis or want of dilatation of the soft parts, gentle traction and oscillation during ten minutes will generally complete the labour.

In the event, however, of arrest from pelvic contraction or from want of dilatability of the soft parts, time is a necessary element. The process of moulding, of elongation of the head, can only be effected gradually. Here oscillation or leverage must be used with great care. What is wanted is steady compression and traction extended, with moderate intervals of rest, over thirty minutes, or even an hour. Should the head be found to make no advance in entering the brim in that time, the question whether the forceps must not be laid aside for turning or perforation will have to be considered.

ORIGINAL COMMUNICATIONS.

ON DR. BARNES'S DESCRIPTION OF DR. BEATTY'S FORCEPS.

By THOMAS EDWARD BEATTY, M.D., M.R.I.A., etc.

In the number of the *Medical Times and Gazette* for August 24 there appears one of the series of admirable lectures by Dr. Barnes which are now being published, and for which the thanks of the Profession are justly due. In that lecture Dr. Barnes has done me the honour to mention my name in connexion with the midwifery forceps, a distinction for which I have felt grateful; but as Dr. Barnes has fallen into a mistake in his description of my instrument, I think it right to rectify it, as, coming from so high an authority as Dr. Barnes, his account of my forceps would soon be considered as correct if not promptly explained.

In speaking of the short forceps, Dr. Barnes remarks, "The best short forceps is perhaps that of Dr. Beatty, of Dublin. It much resembles the short forceps of Smellie. I used it for some time, but I have given it up because of these two faults,(a) and its inadequacy to cope with a large range of cases which come within the power of the long forceps." From this description I can only conclude that the instrument spoken of is not mine at all, for it does not resemble that designed and published by me twenty-five years ago, and reprinted in my recently published volume, "Contributions to Medicine and Midwifery."

My forceps are not short, but were designed as intermediate between the long clumsy French forceps and the old short ones of Smellie. A pair of the latter in my possession, and which I used before I contrived the longer instrument, measure

(a) These will be noticed subsequently.

ten and a half inches in the entire length, of which the blades measure six inches. My forceps, spoken of by Dr. Barnes as resembling that of Smellie, is thus described at page 116 of the volume of "Contributions" just alluded to:—"The entire length, including the handle, is twelve and a half inches; of the blade to the lock, eight inches; of the fenestrum, five and a quarter inches; the greatest breadth of blade, one inch and three-eighths; the widest part of the fenestrum, one inch; the distance between the blades when joined, three inches at widest part; distance between the extreme points, one inch and one-eighth; weight of the whole, ten and a quarter ounces. The sides of the blades enclosing the fenestra are nearly round, slightly flattened upon the inner and outer surfaces, but having no sharp edge either upon the outer border or the margin of the fenestra." From this it will appear that my forceps are well beyond the limit to which the term short can be applied, and that the resemblance to the instrument of Smellie is very remote. But on looking at the description of the instrument recommended by Dr. Barnes, and comparing the measurements of it with those of my own, quoted above, I find that there is a much greater resemblance between them than between mine and Smellie's. In fact, in the blade, the most important part of the instrument, mine is an inch longer than that adopted by Dr. Barnes. In the latter he describes the length of the blade to be seven inches—in mine it is eight. His handle is five inches, while mine is four and a half. In Dr. Barnes's forceps the length is eked out by what is called a shank intervening between the point where the blades begin to separate and the lock, the length of which shank is not mentioned.

I trust it will not be considered that I am encroaching too much on the valuable space of this journal if I make a few observations on Dr. Barnes's two objections to straight or single-curved forceps, which mine are.

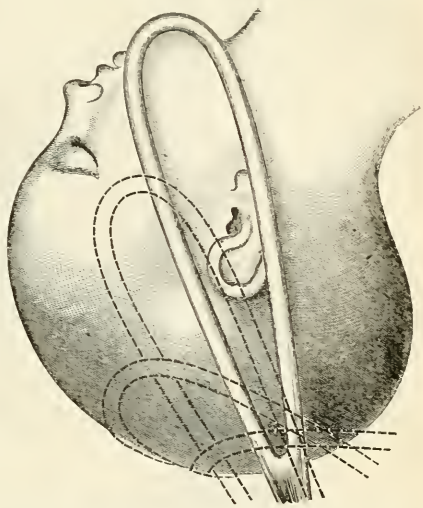
Objection 1.—"To introduce the second or upper blade, the handle must be depressed nearly at right angles with the mother's left thigh, which is flexed upon her abdomen. Now, to do this, the patient's nates must be dragged over the edge of the bed; to procure and maintain this position is often a matter of great difficulty and inconvenience."

Objection 2.—"In extraction, the handles nearly to the last moment must be directed more backwards than is necessary with the double-curved forceps, and owing to the bows springing directly from the lock, the perinæum is wedged open, and not seldom unavoidably torn. In some cases this injury may be avoided by taking off the blades before the greatest diameter of the head passes, but then the work is not always done, and you have to put them on again."

Now, as to the position of the woman to enable us to pass the second blade of the straight forceps, it differs in nothing from that required to pass the first, or a double-curved blade, if such be used. It is the well-known obstetrical position in which we place our patients in ordinary labour in the last stage. It is that in which she must lie for catheterism, in which the operation of turning is performed, and which she must observe when craniotomy is necessary. And when it is recollected that delivery by the forceps is usually performed under the influence of chloroform, when we can place and maintain our patient in any position we like, this objection ceases to have any force. But in the application of my forceps it is of no moment, for the depression of the handle nearly at right angles with the mother's thigh is not only unnecessary, but wrong.

I think the best comment I can make on this, and the second objection just quoted, is to ask Dr. Barnes to be kind enough to open my volume of "Contributions" at page 118, where, in reference to this very subject, I make the following observations:—

"From having at times seen awkward attempts made to introduce the blades, I am induced to add a few remarks upon the method of using the instrument. The point should never be urged forward in the direction of the long axis of the blade. Such a proceeding is calculated to inflict injury on the mother, if the blade is sharp on the outer edge, as it is in most forceps found in cutlers' shops. On the contrary, the operation should be commenced by laying the concave surface of the blade flat upon the lowest part of the child's head, and when so placed *the handle will project between the thighs of the patient;* then bringing the handle slowly down, and, by a series of lateral sweeping movements, during which the point is at the same time slowly passed over the side of the head, describing on it a curved line, the blade is coaxed, as it were, into its proper place. No force should be ever used; if any resistance is encountered, it is an indication that some error has been committed. Better to stop, and even withdraw the blade and begin afresh, than use violence to urge it forward. When one blade is thus placed, the handle will be found to lie close to the fourchette; it should be given to an assistant to hold steady, and then the same proceeding should be adopted to insure the safe introduction of the other. To make all this more plain, I append a woodcut, which speaks for itself.



Having got the head fairly embraced by the instrument, the extracting force should be applied in the direction in which the handles point. If the head be high up in the pelvis, they will be found hard pressed against the fourchette, and pointing backwards. In that direction, then, the handles must be drawn in the first instance, and, as the head is moved, the handles come more directly downwards; in which case the direction of the force is to be changed, still following the rule that it must be used in the direction of the handles. By degrees, as the head comes to rest upon and distend the perinæum, the handles will point forwards, and finally they will be found between the thighs of the patient, in which position the last part of the delivery is accomplished. This quality of pointing out by necessity the axis of that part of the pelvis in which the head is lodged, and thus enabling us without fail to use our extracting force in the most suitable direction, gives a great superiority, in my mind, to the straight blades over those with the lateral curve, which are so much used (in England and Scotland). The latter, from their curved form, give an erroneous idea of the position of the head, and may cause the expenditure of much unavailing force in a wrong direction."

I have only to add that the narrowness of my blades, they being only one inch and three-eighths broad, together with the elongated curve which they describe, render their introduction and application, in the most difficult cases, a matter of very easy performance.

I am sure Dr. Barnes will excuse me if I make use of one of his own diagrams to substantiate the opinions and precepts set forth in the passage just quoted. Figure 13, in his third lecture, p. 196, is what I would have drawn if I wanted to demonstrate the superiority of my straight forceps over that with the double curve. The head is represented in that diagram in a position that very often demands delivery by the forceps. The greatest portion of it has passed through the brim of the pelvis, but the lower surface has not come to touch the perinæum, and the hollow of the sacrum is still unfilled up. It will be manifest to any one looking at that diagram that the short forceps is well applied to the head, and that the first direction in which that head must move is backwards and downwards until it comes to occupy the hollow of the sacrum. The short forceps are placed precisely in that direction, and extracting force exerted in the direction pointed out by

the handles is what the case requires in the first instance. If traction be thus employed, it is manifest that the bulk of the head will be drawn into the concavity of the sacrum, the chin will be removed from the breast of the child, and as this takes place the handles of the forceps will gradually come forward, and as the head descends will follow the curved dotted line on the diagram until, the head having rotated on an imaginary axis running through the parietal protuberances, the face comes to occupy the hollow of the sacrum, and the occiput protrudes beneath the pubes. Now, if we examine the position of the long curved forceps, as represented in the diagram, it will be manifest that traction cannot be made in the proper direction—viz., backwards and downwards. If force be used in the direction of the handles, the effect must be to draw the occiput down on the symphysis pubis, which will of course resist its further descent, giving rise, as I have already stated, to "the expenditure of much unavailing force in a wrong direction." If my straight forceps had been placed on that head instead of the short ones that are there delineated, the contrast would have been still more strongly marked.

The last objection that Dr. Barnes makes to my forceps is "its inadequacy to cope with a large range of cases which come within the power of the long forceps." I have already stated my belief that Dr. Barnes never had a true copy of my forceps, and this observation is quite conclusive upon the matter, for the case with which heads can be seized when they have scarcely entered the brim of the pelvis, and the facility given to their extraction by the shape of the blades, are points dwelt upon by all who use the genuine instrument. Any one who will take the trouble to look into my volume above alluded to will find abundant evidence of the power of my forceps to cope with every case. I will content myself with the following extract:—

"As an illustration of what can be done with the forceps above described, I will quote one case from my case-book (page 120).

"September 16, 1859.—A lady tall, thin, and delicate, eight months pregnant for the third time, living three miles from Dublin, had taken a house in town by my desire for her confinement, and was in the act of getting into her carriage to come to town when she was seized with a convulsion. This was at about 12 o'clock in the day. I was sent for, and reached her as soon as possible. Her former labours had been natural. I learned that for a week previous to the present attack she had been complaining of headache; I found her after a second fit quite collected and free from pain in the head. I examined and found no sign of labour. The convulsions returned every hour, increasing in severity, but with intervals of complete consciousness. At 9 o'clock p.m. there was some slight labour pain, but still no dilatation of the os uteri. At 11 o'clock the os was open to the size of a shilling, and the convulsions still kept recurring every hour. At 12 o'clock she had another bad fit, when I found the os uteri about as large as a two-shilling piece and soft. I tried dilatation with my fingers, and succeeded in enlarging the opening to such an extent that, if it had been desirable to turn the child, one would have been able to force the hand into the uterus.

"The head of the child lay well down on the cervix uteri. A moment's reflection convinced me that if I could get my hand into the uterus I could as well introduce the blades of my forceps, and accordingly, having ruptured the membranes, I proceeded to pass the instrument, first one blade, then the other, along the sides of the head, and I readily closed the handles. Then, by slow traction, I drew the head through the os uteri and into the pelvis, and delivered a live boy, who is now seven years old, strong and healthy. I think an instrument capable of accomplishing a feat such as this does not require any further commendation."

In conclusion, I will observe that the old short forceps is totally abandoned in Dublin, and that for many years no forceps has been used in the Lying-in Hospital of this city but my straight forceps. I have used no other myself for twenty-five years, and I believe the instrument is very generally employed by other Practitioners. We do not meet the torn perinæums that Dr. Barnes fears as the result of its use, and those who use it the oftenest are disposed to prize it the most.

Having already had the pleasure of presenting to Dr. Barnes a copy of my "Contributions to Medicine and Midwifery," I will now add to my gratification by requesting his acceptance of a pair of my straight forceps, with a request that when he has a very bad case with the head high up and tightly fixed in the pelvis he will use the instrument, following the directions above laid down, and I can promise him he will have no reason to regret the trial.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. III.

Having scanned some of the living portraits of disease in this pictnre gallery, let us now go down to the receiving-room and look about for other objects of clinical study. As we entered the hall, a cab drove up, and we observed a figure shrouded in blankets. The Physician gave orders that the patient should be carried direct into the private room and laid upon the couch. The command was executed, and the Professor, beckoning to us, passed on to this apartment. "See now what this face depicts," said he; "here is a man, well formed and muscular, but prostrate with some appalling disease. Look at his muddy, faddled, expressionless face, as though he had half recovered from a desperate bout of drinking. The mode in which you saw them drag him out of the cab, in his utter helplessness and littleness, may have convinced you that he was too prostrate to walk out of it. Human speech is here struck dumb, but a voiceless eloquence remains for our study. His swollen dry lips have peeling sordes here and there." Then, calling to the friends, the Doctor informed them that they must take the blankets, etc., back, as they would not be allowed to go up with the patient, and, asking the latter's name, he hallooed at him, "John! are you in pain?" The half-closed lids were slowly raised, exhibiting a mute eye, and an unintelligible mutter followed, when he relapsed into his previous state of insensibility. Orders were now given to take him to bed, the blankets were removed, in doing which a feeble dusky rash was noticed over the trunk. "The other day," observed Dr. ——, "we had to unclothe a patient under somewhat similar circumstances, and with analogous symptoms, and in doing so we noticed the linen soiled by an ochry fetid motion, but a rash was scarcely visible, on which account we at once pronounced it 'intestinal fever,' as distinct from this case, which I make no doubt will prove one of typhus, which, in its efforts to rid itself from its pent-up prison house, spends its destructive bane on the cutaneous and pulmonary capillaries. This effort (shall we call it this *vis medicatrix?*) spoils the areolar pulmonary tissue as a decarbonising field of action, and black—emblem of the mournful event which is likely to follow—in lieu of red blood, wends its sluggish way to the brain, the sole cause of his muddled state of mind. The animal germs of this destructive poison may be tinctured with that of disorganised refuse vegetable matter, and then the *materies morbi* finds vent in the agminate glands of Peyer, deranging them, like syphilis, into chancrous ulcers. The profuse hydragogic tendency which ensues when this abrasion of follicular surface is set up, would appear to indemnify the system from death by uræmia; for as in typhus the urine is scanty, very high-coloured, emitting a strong animal odour, with high specific gravity; on the other hand, in intestinal fever, the secretion, though scanty, is not heavy, but, like that in cholera, contains less of the elements of urea and its compounds than it does in any ordinary derangement of the system from dyspepsia, gout, etc."

We now passed into the admission room proper; at the threshold one's mind was riveted on a girl about 15, whose liquid, black, lustrous eye, and long lashes, more "seal" like than human in character, bespoke a marked diathesis, which was not in any measure relieved by the pale long face, thickish lips, narrow chest, and tapering fingers.

A tyro in the study of physiognomy may well take this instance of "phosphatic" temperament as a starting-point. Coal-black wavy hair, clean, white, and brittle teeth, the stature rarely exceeding five feet eight inches in the male, are a few of its leading characters. The standard height of the Life Guards is six feet and upwards, but not twenty men out of a company of 800 are to be met with who answer the above description; the bulk is found amongst those who exhibit the lithic or oxalic acid types. The subjects of these three main diatheses with which we have to deal, apart from well-defined struma, present also characteristic traits, both mental and corporeal. The phosphatic temperament, it is well known, is

not capable of great bodily exertion. Brunel positively objected to him amongst the navvies of the Great Western on that ground. He is calm, thoughtful, with a serious turn in disposition, and a soft, weak, not deep, though harmonious, voice. He will bear no form of depressing treatment, as is often evidenced in the management of those diseases somewhat peculiar to the temperament, as chorea, hysteria, cynanche, etc.

The patient now under review had applied for relief from chronic tonsillitis, which had induced a permanent raucous voice, running occasionally into smart attacks of bronchitis, otorrhœa, and deafness on the left side. To be brief here, it may be added that tonsillotomy, by means of the guillotine, effectually cured the whole train of these evils.

The topic of our conversation with one of the staff was interrupted by piercing screams. On inquiry we ascertained that it came from the room set apart for delirious patients, and thither we bent our steps. We found that the authorities had judiciously "toned down" the prevailing colours of the furniture of this room to a cerulean cast, except the walls, which partook of the dingy salmon-colour of a workhouse. If the managers of our sick wards had been sufferers from acute headache or ophthalmodynia, they would have learnt perhaps the soothing and even anodyne nature of a dark green or blue paper in the rooms set apart for acute cerebral diseases. How often it has fallen to our lot to detect an unscrupulous ignorant nurse throwing aside a thick curtain from a window and admitting the full blaze of sunlight upon a case of severe delirium, just when the patient was dozing off after intense excitement, and by such an act has renewed all the worst symptoms of the case, and this, too, under the selfish plea that she wanted "to see to do a little needlework," or "get her tea." Even parents are often so incorrigible that the ordinary Medical attendant cannot risk an altercation on such a matter; thus, amongst many instances, one may be cited here of a child suffering from meningitis and cerebral effusion after whooping-cough, whom the writer found in a bed directly opposite two windows having a southern aspect, and the room intentionally light that the "little pet" might play with her toys, look at her pictures, and read their titles, etc. The child had not slept for three days, and the Medical man allowed himself to think, with the parents, that the patient would soon tire out and fall asleep from exhaustion! At the end of the fifth day coma crept on, and death on the following morning. The darkness should be of midnight-intensity, so that the eye may not read a feature of the face, or view a surrounding object; and in children the effect is sometimes quite critical, when the brain is thus shrouded during forty-eight hours.

That singularly gifted physiologist, Sir C. Bell, in his original lectures on the structure and functions of the nervous system, would, in language peculiarly his own, direct attention to a series of facts since fully elucidated, concurring in the proof of the existence of a "nervous circle." In order to exhibit to us the necessity of a "muscular sense" for determining a voluntary contraction of muscle — a species of vibration radiating from the nervous sphere—he would adduce the case of a woman who was deprived of the will, though not of the power, of motion, and who always stated that she could not sustain anything in her hands, not even her child, by the strongest effort of her will, unless she kept her eyes constantly fixed upon it, the muscles losing their power, and the hands dropping the object, as soon as the eyes were withdrawn from it. This employment of the sense of vision to supply the deficiency of the muscular "sense," as we may now style it, was often noticed in the following experiment:—A hemiplegic patient was selected who made a fair walk with the aid of a stick or crutch up and down the ward, but who was desired to try and do so without either. In striving to accomplish the feat, he was observed to keep his eyes deliberately fixed on the floor; and it was always found that he preferred to walk in a straight line, as on one narrow plank of the entire length of the ward. The culminating point in the experiment was to put yourself a few feet on the healthy side of the patient, and to order him "to turn and come to you." The eyes left the floor, an effort was made to obey the summons, and the man would stagger, shake, and fall if an instant effort to grasp him was not made. The fact may be proved also in a case of chorea of one arm. The patient has been desired to extend the affected limb at full length, and to spread out the fingers at the same time, when an authoritative and peremptory "keep quiet" has been given. The eyes have been riveted on the limb, and success has attended the effort, but the moment attention forsakes the object the limb falls, and the contortions are renewed. This "pose plastique" may be rendered more durable, though ludicrous, by the experimenter placing himself in front of the child and extending his own arm, so that the fingers of the one shall approximate those of the patient, and the eye of the former catch the eye of the latter, in the same horizontal plane of vision, when he will be surprised to find how long the effort can be sustained.

The observations of Continental physiologists on the office of certain portions of the cerebro-spinal axis have thrown fresh interest into the study of neurology. M. Broca asserts that the faculty of speech resides in the left cerebral hemisphere, and not in the right. Dr. H. Jackson has adduced clinical evidence pointing to a similar conclusion. "Defects of language (he asserts), whether general or particular, are found with hemiplegia on the right side, and not with hemiplegia on the left." At the period referred to, when we were in the habit of exhibiting these evidences of a "muscular sense" with our hemiplegic patients, it was so impressed on the mind that left hemiplegia was the rule in disease, and the opposite the exception, that a large number of instances were collected. The notes are now before us, and the proportion is as two of dexter to eleven of sinister hemiplegia. The latter were rarely affected in their speech, though instances occurred of loss of power of articulation in the former. Let any person visit our Hospital wards or out-patients, and carry on his observations in our London streets, and he will be surprised to find the extreme rarity of dexter hemiplegia and the prevalence of sinister palsy without impairment of speech.

The several cases of hemiplegia to which reference has been made were strikingly confirmatory of the late Dr. Todd's observation(a)—viz., that the portio dura is seldom affected in these forms of palsy depending on disease of the brain. When this nerve loses its power suddenly, as in the case of the portrait No. 1, the derangement arises from a congested state of the neurilemma of its trunk, and the disorder is exocranial; whereas, when, as in the present portrait, the palsy has been

preceded by constitutional disturbance, headache, vertigo, etc., the inference is obvious, that endocranial mischief has involved the root of the nerve. Such was the case in the patient P. C., now under review. He was 45 years of age, with a sallow unhealthy aspect, presenting a marked deadness on the right half of the face. On covering up the left side, the solemn, fixed stare of the other eye, with its partially dilated pupil, but ability to close the eyelid, were pathognomonic of disease near the "pons." Unlike all the

(a) Todd on Hemiplegia, *Med. Times and Gaz.*, 1858, p. 131.

instances of paralysis of the nerve of expression from exocranial disturbance, the portio mollis was involved in this form. He could not hear the loud tick of a watch. In attempting to close the eyes the right was more covered than in case No. 1, and the ball did not roll upwards so fully; the upper lid also descended lower to meet its fellow, and thus the cornea was more protected than in the former instance. He could whistle, sniff, smile, and puff out his cheeks in blowing with less difficulty and distortion than the patient with exocranial paralysis of the nerve. The masticating powers were not impaired, but there was more anæsthesia than in the other instance, dependent, no doubt, upon the intimate coalescence of the hard portion of the seventh with the sentient extremities of the fifth. It is a well-established fact that the motive extremities of the latter nerve have little intimacy with the motive division of the seventh. The disease was evidently situated at the margin of the pons, and only partially involved the seventh nerve. His history was that, having formerly been a gentleman's servant in a wealthy English family in Madras, since his return home he had acted as butler. His habits were like this class of persons, "who are never drunk, but are always drinking." Alcohol and sugar combined, in the form of spirits, wine, and beer, had effectually procured him a *foie gras* and atheromatous deposits in the aorta and arteries of the brain. A sudden arrest in the circulation at the base near the pons, either by embolism or by a slight cracking and giving way of the coats of the basilar artery, induced weight and distress at the back of the head and a strange feeling of stiffness over the right side of the face. For these symptoms, added to his semi-jaundiced appearance, he sought admission into the Hospital. The head was shaved in the course of the longitudinal sinus, and a blister an inch broad laid over its course. This was dressed with tartar emetic ointment until a brown slough was formed, which was in its turn treated with poultices. Small and frequent doses of iodide of mercury with other simpler remedies formed the main points in the treatment. His recovery was almost complete ere he left us.

SULPHUROUS ACID AS APPLIED TO WOUNDS AND SORES.

By JAMES DEWAR, M.D.

It is obvious that any means of promoting the speedy union of parts which have been divided during Surgical operations would materially contribute to the patient's advantage, and lessen the risks to which he is otherwise exposed. The following case, as showing that the existence of pus is not only an unnecessary but a preventible accident, has an important bearing upon the subject of Surgical fever, and would encourage the hope that even over it we may be able to exercise some control by anticipating the evils associated with its existence. I have long been impressed with the fact of there being an antagonism between sulphurous acid and pus, but have not till now had an opportunity of fully testing its value. Miss —, a young woman with a tumour in the breast; she had chloroform, and the tumour, which was about the size of a half-closed fist, was removed by a wound of about six inches long There was little bleeding, and there was no occasion for ligature. The raw surface was carefully sponged with sulphurous acid, and the edges adjusted by four silver sutures. A piece of lint soaked in the liquid was laid over the wound, and this covered with gutta-percha, the dressing being changed every six hours. From that time till now the patient has never had the slightest uneasiness in the wound, which she could bear to have handled without apprehension; indeed, she said that if she did not see the wound she would not be aware of its existence. Union was complete within twelve hours. The stitches were removed on the third day, and two days thereafter my patient was in the garden. She assures me that there never was a stain upon the dressing.

A young man had his hand severely cut when working at a circular saw. The wound was closed in the usual way, and the acid applied, as in the preceding case. The pain instantly ceased, and the edges have since united without any appearance of pus.

I may mention that some months ago Professor Syme had a case in which the result was very similar. He told me that the sulphurous acid spray was applied to the raw surface, and that when he went to dress it for the first time he was delighted to find the healing process in an unusual state of forwardness.

I hope that some of your readers will be induced to give this mode of treatment a trial, and have every confidence that their experience of it will be satisfactory. Sulphurous acid is superior in efficiency to carbolic acid, and is entirely free from the objection applicable to the latter—viz., of being a powerful irritant and having a disgusting smell.

Kirkcaldy.

A CASE OF

LARGE FIBROUS TUMOUR CONNECTED WITH THE UPPER PART OF THE LIGAMENTUM NUCHÆ— EXCISION—RECOVERY.

By S. B. PARTRIDGE, F.R.C.S. Edin.;
Surgeon, Bengal Army; Professor of Anatomy, Medical College, Calcutta; and Surgeon, Medical College Hospital.

Dinonath, aged 20, a Hindoo, by occupation a farmer, was admitted into the Medical College Hospital, Calcutta, on April 20, 1867. At the time of his admission he was in a good state of general health, and his object in presenting himself was the removal of a large morbid growth occupying the back of the neck, which, though painless, occasioned him considerable inconvenience from its size and weight. It was not easy to obtain from him anything like a satisfactory history of the development of the growth, but, as far as could be made out, it appeared that its first commencement dated from about his fourth year of age, and that its progress had been uniform and constant. His appearance at the time of admission is well shown in the accompanying woodcut. The tumour, considerably larger than the patient's head, occupied the whole of the posterior region of the neck, encroaching on the occiput above, and reaching to the upper part of the interscapular region below; the integument covering it was somewhat hypertrophied, but not in any way adherent to the growth; and the tumour itself, hard and dense in structure, appeared to be distinctly defined and moderately movable on the surrounding parts, its most attached point being in the upper part; its surface afforded indications of a species of bipartite division, a broad shallow sulcus traversing the whole of its extent in the median line. Measured transversely, at its point of greatest width, its circumference amounted to twenty inches; measured vertically in the line of the sulcus, the circumference was fourteen inches; the left half of the tumour in a similar vertical direction measured fifteen inches and a half, and the right half fifteen inches.

On May 7, with the assistance of my colleague Dr. Fayrer, I proceeded to remove the tumour. The patient was first brought fully under the influence of chloroform, and then a long median incision made, commencing from the vertex of the skull and extending to a point about three inches below the inferior margin of the growth; the incision was carried through the integument and the superficial muscles of the neck which were found to be spread out over the tumour, and in the subsequent dissection care was taken to separate the muscular fibres, leaving, as far as circumstances would allow, their cranial attachments intact. The bulk of the complexus was necessarily removed, but a considerable portion of the splenius remained uninjured except at its points of connexion with the cervical spines. On continuing the dissection, it was found that the bulk of the circumference of the tumour was free; that the lower part in the position of the median sulcus was deeply notched, giving the growth a heart-shaped appearance; and that its base or attached point, measuring about four inches in diameter, extended from the exterior occipital tuberosity to about the level of the fourth cervical vertebra. The occipital protuberance was enormously hypertrophied,

forming a remarkable spike-like projection, whilst the surface of the occipital bone below it was spread out as it were and flattened. The neck of the tumour had undergone partial ossification, but there was no direct ossific union between it and either the skull or the vertebral column; the starting-point of the growth appeared evidently to have been the tissue of the ligamentum nuchæ. The removal of the tumour was not attended with any very great difficulty, and although there were two or three rather large vessels entering it, especially on the right side, the hæmorrhage was easily restrained. Eighteen ligatures in all were applied. The projecting spike from the occiput was curtailed with a bone forceps; a semi-elliptical piece of redundant integument, about two inches in extreme width, was removed from either side, and the edges of the wound brought together with iron wire sutures; a large clean sponge was then placed over the whole, and a bandage applied. On May 9 the parts were considerably swollen, and the skin tense; three sutures at the lower part of the wound were therefore taken out, and some clots which had formed in the cavity removed. There was slight, but by no means excessive, febrile excitement, and the patient slept and ate well. Fomentations and linseed-meal poultices were ordered locally. From May 14 to May 18 he suffered from diarrhœa, which readily yielded, however, to appropriate treatment. By May 16 all the ligatures had come away, and on that day all the iron wire sutures were removed. Several sloughs of cellular tissue formed within the cavity; these were taken away as early as possible, and the cavity itself daily injected with Condy's disinfecting fluid. By May 20 all the sloughs had separated, and healthy granulation thoroughly set in. The remainder of his progress towards recovery was uniform and constant. By June 11 the upper two-thirds of the wound had completely healed, and by June 19 all that remained was a granulating surface about three inches long and half an inch broad. Towards the close of the treatment support was given to a slight extent in the form of a few transverse bands of strapping. On July 14, 1867, he was discharged from the Hospital in the condition indicated in the accompanying woodcut. At the time of his discharge he had completely regained the power of nodding and rotating the head.

The tumour, which weighed nine pounds thirteen ounces after removal, was found to consist of dense fibrous tissue partially ossified in the position of the attached neck, and also in the substance of the left half of the growth.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

"DREADNOUGHT" HOSPITAL SHIP.

The Decks of the Hospital Ship—Ethnology—Cases of Heart Disease and Aneurism—Visceral Disease from Dram-drinking—Delirium Tremens—Continued Fever—The late Cholera Epidemic.

It is reasonable to suppose that none of our readers are ignorant of the existence of this institution, or of the fact that it is a general Hospital for a special class, which class has always deservedly received a large share of public sympathy and support. The British tar is, and always has been, a favourite with the people of this country, and the great interest that has been taken in the vexed question of Greenwich Hospital *versus* the Seaman's Hospital Society shows that the press and the public are anxious that the claims of the latter should be successfully established. But comparatively few of the Medical world have ever seen the interior of this ship, and fewer still know the special advantages that it possesses to the student of Medicine, Surgery, ethnology, and of living languages. Ample opportunities for the study of all these branches exist on board the *Dreadnought*, and it is not too much to say that sailors possess more striking peculiarities of character than any other class, arising partly, perhaps, from their cosmopolitan experiences, and partly from the comparative state of isolation from the world at large in which many months of their lives are spent. This ship (formerly named the *Caledonia*) has occupied her present position in the Thames for eleven years, but is fitted up in all respects as were her two predecessors. There are three Hospital decks, the upper and lowest of which are devoted to Surgical, and the middle and widest to Medical cases. Light and ventilation of an imperfect character are afforded by the ports on either side, and by shafts or hatchways that extend along the centre and through all the wards, and are enclosed by skylights on the spar-deck. On a level with the uppermost ward, and at the after part of the ship, are operating-rooms and dispensary; below these is a small museum, and lowest of all a post-mortem room. There are baths and closets in each ward at the "forward" end, and all the decks are warmed to a certain extent in winter by hot-water pipes. This much for a general description of the Hospital proper. With the Medical officers' quarters, galley, and sundry other parts of the ship, we have here nothing to do, except to record parenthetically for the benefit of visitors that in the first strangers are always welcome. We can speak as highly of the courteous hospitality of the Medical officers of the *Dreadnought* as we can of their scientific ability, and this is saying a great deal.

The ethnological varieties found here are of course common to all the wards, and patients of all European nationalities, as well as Americans, English and French Canadians, Hindoos, Africans, Malays, and Chinese, may almost always be found at one and the same time. Aboriginal Australians, New Zealanders, and Sandwich Islanders were formerly frequent inmates, but these races have for some years ceased to supply hands for the British mercantile marine. It is our intention in this report to refer exclusively to Medical diseases, to which class of cases sixty-three beds are devoted, which occupy the largest civil Hospital ward in London. The actual total of Medical cases on the books often, however, exceed this number during the winter months, but from fifty to sixty cases may be taken as the usual weekly average all the year round. There is about the usual assortment of chest diseases, phthisis and bronchitis forming a large proportion. But this Hospital is peculiarly rich in cases of heart affection, and can probably show a larger list of aneurisms, as well as of valvular and other structural diseases of this organ, than any other single establishment in the metropolis. During the current year, several cases of aneurism have been admitted, and many of valvular or other forms of atheromatous disease, besides several with inflammation of the heart or its membranes. A case has been recently recorded in the pages of the *Lancet* by Dr. Stephen H. Ward, one of the Visiting Physicians, the subject of which had an immense aneurismal tumour of the thoracic aorta, measuring twenty inches from side to side. This tumour had increased very rapidly indeed, and at the post-mortem examination the right clavicle was found to be dislocated, with extensive caries of the first and second ribs and the adjacent parts of the clavicle and sternum.

Another patient died lately, and the post-mortem examination disclosed a rupture of the aorta into the coats of the œsophagus, the effused blood having made its way between the outer and middle coats of this organ on to the anterior surface of the stomach, and there spread to a considerable extent in various directions. In this case there was considerable caries of the fifth, sixth, and seventh dorsal vertebræ. A third patient examined after death a few weeks ago by Mr. Harry Leach had a large aneurism opening into the upper lobe of the left lung, and a clot was found in the left pleura weighing nineteen ounces. The position of this tumour was diagnosed soon after the patient's admission from a harsh laryngeal cough, indicating pressure on the recurrent laryngeal nerve. We are informed by Mr. Leach that the above are fair average examples of cases frequently found in this ship, and this opinion is corroborated by the more extended experience of Dr. Ward, who has been for years one of the visiting Physicians. The cases of valvular disease are of course more numerous, and show very markedly indeed that existence is compatible with a very extensive amount of disease. The cases of phthisis received are usually in a very advanced stage, as sailors will not apply for relief until cod-liver oil, or any other approved remedies, have long ceased to be useful; hence consolidated lung substance, or more often vomicæ and large cavities, are the rule rather than the exception. In spite

of a very indifferent and very draughty system of ventilation, patients with uncomplicated acute bronchitis do well, and, inasmuch as the malady occurs in subjects with what may be called "hard physiques," the auscultatory signs are very marked, and hence proportionally valuable to the unpractised ear of a young student.

Affections of the abdominal viscera are well represented in cirrhosis, hepatic abscess, Bright's disease, and dysentery. Dram-drinking is a vice specially affected by sailors, and it is not perhaps a surprising though a melancholy fact, that out of eighty or ninety Medical post-mortems performed annually at this Hospital, the number of healthy livers found could be counted on the fingers. Examples of the incipient stage, the contracted, enlarged, and intensely "nutmeg" organ may be seen here, for the malady is almost universal, and hence, in the vast majority of instances, it is a question more of degree than of kind. The practice of opening hepatic abscesses is contraindicated by the results of practice on board this ship, and there is a tolerable number of recorded cases in which the abscess had opened into the lung above or the intestine below, followed by a rapid recovery. Of dysentery, it may suffice to state that, during the past four years, 270 cases have been admitted, more than seven-eighths of which came from China and the East Indies. A paper by Mr. Leach, that appeared last year in the columns of the *Medical Press and Circular*, goes to prove that rest and bland diet is the most hopeful plan of treatment, for in the advanced stage of chronic dysentery the internal surface of the intestine is so extensively spoiled with ulcers of various depths that it is utterly useless to expect aid from the direct action of therapentics, whereas nature will do great things if we permit nothing but very simple dietetic material to pass into the alimentary canal. A colon is sometimes produced in the post-mortem room in which the square inches of ulcerated exceed those of healthy surface, and, in many others, the numerous cicatrices found attest the immense extent of unaided reparative power accomplished. Several cases of Bright's disease are almost always inmates of this ward. These patients invariably apply for admission when the disease is greatly advanced, when diuretics and hot air baths cease to be of service, and when a tonic form of treatment is equally unsatisfactory. It is observed here with these patients that tenacity of existence (for it cannot be called life) is most obstinately maintained. A very cheerful old Swede died on this deck a few weeks ago who had been an inmate for the last seven months, during which time he had survived three attacks of bronchitis, and had narrowly escaped mortification of the upper and lower limbs. He died eventually from exhaustion primarily produced by gangrene of the right forearm, the post-mortem appearances indicating only extensive fatty degeneration of the kidneys, with great general anasarca.

The remarks made above with reference to cirrhosis naturally lead us to delirium tremens, of which this Hospital has a tolerably liberal supply. The quantity of alcoholic material consumed by sailors appears almost incredible. Cases are on record in which patients have confessed to the daily imbibition of from thirty to forty glasses of rum, and a man admitted with erysipelas a few months ago stated that his daily quota for a fortnight before admission consisted of three bottles of gin, three gallons of beer, and several glasses of brandy.

And, in the treatment of this disease, the glaring defects of a floating Hospital are most emphatically apparent. Sounds in one ward are heard throughout all; and 180 or 200 sick men are often kept awake all night by the yells and vagaries of a refractory patient. The use of opium is now almost entirely discontinued, and the hypodermal injection of morphia has not yet been practised sufficiently to warrant any decisive opinion as to its merits, though in two instances (both of which ended fatally) it would seem to have hastened, if not produced, cerebral effusion. No drugs (except a black draught and placebo mixture) are given, and in all uncomplicated cases the patients recover rapidly, often delaying, however, the convalescence of other inmates to a serious extent. During the two preceding years 115 cases of ague in various forms, and 12 of what is termed here West Coast fever, were admitted. China, the West Indies, and the West Coast of Africa, furnish all these cases, of which it may be observed that most of those suffering from the tertian form come from the first, and those subject to the quotidian variety from the last-named locality, which fact, if confirmed by experiences gleaned elsewhere, is a noteworthy point in the etiology of disease. It is now an established custom in this ward to give nothing except a purgative until the exact time at which the fit usually commences is ascertained, and then to administer ten or twelve grains of quinine two hours before the next fit is expected. This is repeated at least two or three times consecutively, and, with the assistance of good diet, quick convalescence follows.

Continued fever, as seen in this ship, is now almost exclusively of the typhoid variety. No less than 234 cases of the latter disease have been admitted during the past four years, 10 only of typhus being found on the books during the same period. The subjects of this disorder come to the *Dreadnought* exclusively from small coasting vessels, or from the low lodging-houses near both banks of the river, and in the neighbourhood of the docks, thereby adding yet other evidence, if more were wanting, as to the direct causes of this comparatively preventible malady. Many of the cases admitted are very severe, and the treatment now adopted consists of good fluid diet, and very little medicine of any kind, stimulants being seldom prescribed until the middle of the second week, and often omitted altogether, except to assist convalescence. Under this system, it is satisfactory to know that the percentage of mortality is small, and that the long stage of convalescence through which the patients pass is greatly due to disadvantages unavoidable in a floating establishment. Diseases of the nervous system may be studied here to very good purpose, and many interesting cases have occurred during the past three years, some of which are referred to by Dr. Hughlings Jackson in the first volume of the *London Hospital Reports*, as well as in other communications from the same authority that have appeared elsewhere.

During the last three epidemics of cholera, the committee of the Society have obtained a hulk from the Admiralty, and have moored her near the *Dreadnought* as a receiving ship for cholera patients. The *Belleisle* was thus utilised last year, and eighty-eight cases were admitted. The patients were treated severally with calomel, hypodermal injections of quinine, injected solutions of carbolic acid, and what was called the "nil" treatment, which last consisted in giving nothing but small quantities of milk and beef-tea at frequent intervals. Twenty-three cases ended fatally, and Mr. Leach informs us that the calomel system appeared to be the most successful, though the secondary fever was in some of these cases unusually severe.

The list of Medical diseases that are prominently brought under notice in this ward, both on account of their numbers and severity, would not be complete without a reference to scurvy. It is not, however, necessary to repeat remarks, statistics, and denunciations that have during several years been recorded in the columns of this and other journals; but we gladly pause to congratulate the officers of the Seamen's Hospital Society on the recent passing of the Merchant Shipping Bill, the provisions of which, if well organised and strictly carried out, will soon cause this disease to be almost unknown in our merchant navy. The contents of the museum, small as it is, should form a valuable aid to the ethnologist, for they include one of the most varied collections of skulls in London, prepared by Mr. Busk, Dr. Rooke, and others who have held the Surgeoncy or other junior appointments at this Hospital.

There is no doubt that the hygienic arrangements of a floating Hospital, and one, moreover, of wooden walls, must be defective as to some well-known requirements of sanitary science. A want of height and, therefore, of proper cubical space, an absorbing material around, very inadequately neutralised by whitewash, the absence of any small wards for noisy patients, and the draughty ventilation above mentioned, are all objections that should render the existence of a Hospital on board ship highly undesirable, except as a matter of necessity. There are other evils, such as noises from without (for the *Dreadnought* is moored in the immediate vicinity of iron shipbuilding yards), a difficulty in procuring efficient nurses, constant casualties as to the water supply, and delays inevitably connected with an intercourse by water-way that emphasize the above very materially, and render the exertions of the Seamen's Hospital Society to obtain quarters ashore a very laudable and proper proceeding. Hospital ships may be invaluable on an enemy's coasts, and in many exigencies of war. It is probable, too, that the establishment on board the *Melville*, which is shortly to be replaced by the *Meanee* at Hong-kong, is better for patients in those latitudes than a building with defective drainage and miasmatic surroundings on shore. But no sort of excuse now exists for the perpetuation of such a system on the Thames; and, though the *Dreadnought* has been for the last

sixty-seven years an eminently outward and visible sign of activity and charity, we believe that the removal of her inmates to the vicinity of green fields would increase the Society's sphere of usefulness, and tend to assist the convalescence of its patients in a very great degree.

To the student, however, and particularly the young Practitioner, this ship affords a large field for varied experiences, which we have specially indicated as regards the Medical department, and we would particularly recommend a short residence here to those who are about to enter either of the public services, or to go abroad. We shall probably refer to the Surgical department of the Hospital at a future period, but, as the application of splints, bandages, etc., is already included in the Professional tests required by examining bodies, we can here remind our readers that this Hospital affords very large opportunities for the prosecution of this branch of practice, in which kind of work so few are adepts, and which, handicraft though it be, is by no means a despicable aid to success in Surgery. This institution, though established for little more than half a century, can boast that its Professional staff has included many eminent men. We would specially mention Dr. George Budd and Mr. Busk, both of whom (one in the capacity of visiting Physician, and the other by residence and much practical study on board for many years) gleaned here materials for the formation of opinions that are now so much and so justly valued. The benefits conferred on the port of London by the *Dreadnought* are undoubtedly very great, as was notably exemplified last year by the ship to ship cholera visitation so ably conducted by Dr. Rooke. It is, however, chiefly our wish and object to show to the Profession the advantages of a Hospital too little known, and therefore too little appreciated.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 21, 1867.

SANITARY SCIENCE AFLOAT.

The recent passing of the Merchant Shipping Act is undoubtedly a healthy indication of sanitary progress in matters maritime. It is now twenty-two years since any legislative enactments were made with reference to the health of our vast floating population, and this period more than includes all that has been done in this country to lessen by hygienic means the still very large annual bill of mortality. During this interval, the original Merchant Shipping Act has been amended again and again; and whilst the vital nautical stuff required to man our ships has been persistently neglected and ignored, provisions have been made for the survey of hull, ropes, spars, and anchors, for the improvement of compasses, and for all other artificial means tending to insure safety at sea. But until the last six or eight years, few, if any, individuals seemed fully alive to the fact that all these changes are comparatively worthless unless our vessels depart from their respective ports with sound and healthy crews. The preservation of health on board, and the superlative importance thereof, seemed to have been entirely forgotten; for enactments were made as to registration of tonnage that almost forced the owner to lodge his crew in as small a space as possible. The recognised scales of diet were never altered, though modern modes of preserving meat and other viands have long since been utilised elsewhere; the limejuice—often a filthy and fictitious mixture—was kicked about in a cask, and seldom or never given or taken; and the medicine-chest was absolutely useless to an unprofessional man, because no plain and brief book of directions has been ever published to explain the application of its contents. What wonder that our sailors, badly lodged, badly fed, and less cared for than the inanimate belongings of their floating habitations, forsook the sea, and sought on shore healthier, though perhaps less lucrative, employment? The supply of seamen naturally failed to be equal to the demand, for our tonnage increased annually, and, year by year, fewer Britishers took to the sea as a means of earning bread. The scarcity of sailors belonging to our nation, the impolicy of manning our vessels with foreign crews, the persistent continuance and increase of a foul and preventible disease, and (in spite of all modern appliances) the alarming increase of casualties at sea, at length roused the Board of Trade to collect materials wherewith to corroborate the existence of these evils, and on which to found a practical remedy. During the past two years six parliamentary papers have been published bearing upon the various aspects of this question, and the evidence therein contained showed most fully and exhaustively how real and pressing was the necessity for some sanitary reform in the mercantile marine of this country. These papers relate severally to the admeasurement of tonnage, the existence of scurvy, the accommodation and scales of diet provided for merchant seamen, their numbers, ages, ratings, and cause of death. It was originally proposed to found, upon these very comprehensive data, a scheme of reform that would tend to remedy all the glaring evils indicated, and at the same time do much to amend the existing Merchant Shipping Acts. But the Representation of the People has for the time frustrated this plan in its entirety, and the present Act deals only with measures calculated to improve the sanitary *status* of seamen. Provisions are made therein for a sufficient supply of good lime-juice, for increased space in, and ventilation of, the sailors' quarters, and for a permissive Medical inspection of seamen before signing articles. But the terms of this Act, if it is to be successful, must be faithfully carried out by all those concerned in the administration thereof. The Board of Trade will now have increased responsibility, and must see that none but good antiscorbutics are shipped, the owners must provide them in sufficient quantity, the captain must serve them out, and the crew must take them regularly day by day. The Board of Trade has also the responsibility of enforcing a proper amount of healthy accommodation for each sailor, giving to the owner a *quid pro quo* by deducting such accommodation from the register tonnage of the ship; and lastly, the Local Marine Boards are empowered to provide for captains the means of obtaining good and healthy men. And we would here remark that the application of this last clause is as important to the sailor as to the shipowner. The former should recollect that a large sick-list indicates an increase of labour to those able to work, and that in a north-west gale, or in the close vicinity of a lee-shore, a paucity of helping hands often results in the dismasting, striking, or foundering of the ship, and probable death to all on board. If, therefore, the obligatory clauses of the Act be honestly and faithfully carried out, and the Local Marine Boards take action under the permissive clauses, we firmly believe that the quality and number of British sailors will soon improve and increase, that additional safety will accrue to our ships, and that owners of all classes and degrees will find financial results greatly benefited thereby.

LONDON SMOKE FOGS.

It is very certain that climate modifies man, and it may be proved by a thousand facts that man can modify climate: the climate of these islands has undergone a wonderful change since their inhabitants have learnt how to make the most of their resources. Much has been done; the work, however, is incomplete, and as our population increases so must our efforts, until we have reduced to a minimum the preventible climatic causes of disease and premature death. Fog is an element of climate, and not a desirable one; it is a cause of disease, and to a certain extent preventible. In our own Metropolis we may instance the effect of draining that large tract of land called Regent's-park, whence fogs used to descend into the lower levels of the Thames valley; now, however, the source of this baneful exhalation can be heard near the Colosseum rushing through the drain pipes, and doing actual good service by cleansing the sewers with its waters. Much more has yet to be done to the East of our city in this way. London may be well called a volcano with hundreds of thousands of small craters in the shape of chimneys, which belch forth the noxious products of the fires below. Whilst, however, we are unable to control the natural volcano, we have it within our power to keep the artificial one in subjection; we can stop the smoky vomitings from its innumerable craters, and at the same time economise fuel and augment the warmth of our dwellings, without fearing to ventilate them lest our property be destroyed by an invasion of unconsumed coal.

Have we ever estimated the cost—we mean the primary cost—of the smoke that hovers over our city daily? The City of London imports annually over 5,000,000 tons of coals, and if we take the moderate computation of loss by imperfect combustion made by practical men, who gave evidence some years ago before the commission appointed to inquire into the smoke nuisance, at 12 per cent., we shall find that, from want of legislation on this subject, more than 1600 tons of coal float daily over our heads, and too frequently within the range of our lungs, at a cost of more than as many pounds sterling. This is the primary cost; it would be impossible to compute the secondary, for we should have to take into consideration the effects on health, of accidents to limbs during smoke fogs, the expense of extra gas-lighting, the loss of labour among a certain class of artisans to whom natural light is an essential in their vocation—for instance, in Bethnal-green and Whitechapel, where thousands of families are thrown out of employ when their locality is obscured by an impending smoke fog. Needle-workers, linen-makers, manufacturers of lucifer matches and cheap toys are unable to work; cab and omnibus drivers are interfered with; ladies are prevented from shopping; our costly buildings are defaced, and if not so, an extra outlay is entailed in keeping both the exterior and interior of our private and public buildings clean; our washing bills are increased—in fact, a thousand woes spring from this one preventible cause, which not only materially affects our incomes, but even in a greater degree our lives.

More than 500 years ago our smoke nuisance began. When sea-coal was introduced in the latter part of the reign of Edward I., to supply the place of wood and charcoal, so accustomed were the citizens then to a clear atmosphere that they at once complained to the King when they saw it contaminated, and the result was a proclamation forbidding the use of the obnoxious fuel. A fine was inflicted for the first offence, and destruction of the premises whereon it was used for the second. The nuisance, however, has continued more or less ever since until it assumed such gigantic proportions as to force Government to take some steps to mitigate the evil by compelling manufacturers to consume their own smoke, and the owners of steamers plying on the Thames to do the same; but this piecemeal legislation did not strike at the root of the evil, for it omitted to make it compulsory that every private individual should insure by proper grates and flues the entire consumption of fuel used for domestic purposes. This is the only remedy, and until it is applied we shall continue to suffer more and more as the sources of pollution daily increase. When Hamburg was about to be rebuilt, after the destructive fire in 1842, when more than 1700 houses were burnt, her authorities sent over to England to consult with us as to the best means for preventing the smoke nuisance in their reconstructed city. Their mission was almost a fruitless one, for although for years we had been building new houses and new streets more than equal to their own burnt city, we had allowed these new constructions to be reared without attempting to provide against this evil. In the Exhibition of 1862 there were many ingenious inventions for remedying the defects in our stoves and grates, but no encouragement has been given to their originators. Let, however, Government legislate in earnest, and bring about a complete reform of this dire abuse of so costly an article as coal, and we shall soon see the inventive faculties of our countrymen at work to fulfil the requirements of the State.

Fogs do not plague us when we are best able to bear them; they seem to infest us when our atmospheric surroundings render us least capable of resisting their influence. Every Londoner knows that there are two classes of fogs—the *wet* and the *dry*. The former is due to the admixture of two atmospheres of different temperatures, the mean of which renders them incapable of holding the same amount of watery vapour as before; it is therefore set free in a condensed form, holding within its meshes the various impurities which it meets. Wet fogs and clouds exhibit certain electrical phenomena, which seem to be of an opposite character to those existing in smoke; hence it is that they mutually attract each other. This was well observed and noted by Luke Howard, who, in November, 1813, during a dense smoke fog, saw the smoke, in passing away from the city, swell itself up in several distinct heaps, each of which, he says, inosculated at its summit with a small cloud. Again, in September, 1818, he witnessed large cumuli actually attach themselves to the smoke of the city, and disperse themselves downwards into it, becoming sensibly denser than those which were not so entrapped. This tendency of smoke and condensed vapour to mutual attraction accounts for many facts which otherwise would remain unexplained—indeed, clouds often act as reservoirs of smoke, and frequently transport it many miles distant from its source, and then disgorge themselves. Many instances of this have occurred on the Continent and elsewhere after peat burnings or forest conflagrations. Volcanic smoke has been known to travel in this way to inconceivable distances. We sometimes see a similar occurrence—on a much smaller scale, however—in the neighbourhood of our own city. A lake of water has been known to become suddenly covered with soot in such quantities as to preclude the possibility of its having been derived from the vicinity; this soot has been brought from afar, and dropped when the cloud ceased to exist on entering a warm belt of atmosphere.

We get about forty foggy days annually in London, their season commencing in September and ending in February; during November, December, and January they are at their height. They may occur when the humidity of the atmosphere is only 75°, 100° being saturation point. They are frequently the sequels of calms, with gentle winds varying from S.E. through E. to N.E., but the temperature of the currents has more to do with their creation than with their direction. In summer we are at all times liable to the dry or smoke fog, which accumulates, according to Howard, when two opposite gentle currents obtain, or a misty calm interferes with the mobility of our atmosphere. It is high time that the evil be thoroughly looked in the face and removed. By removing it we should save millions a year in London alone; at the same time that we save our money, we must remember that we are prolonging life and making it more enjoyable.

We have hitherto spoken of the bad effects on health and property of the smoke fogs of London, and we have pointed out the importance of saving so much fuel and of preserving a clear atmosphere. It must not, however, be forgotten that when smoke is consumed we have not got rid of the products of the combustion of coal; the quantity of carbonic acid would thereby be considerably increased, and it may be that some of the sulphurous acid would be converted into the more highly oxidised sulphuric acid. We have a notable illustration of an atmosphere excessively impregnated in this way in that of the Underground Railway; the engines consume their own smoke, but the atmosphere is not thereby prevented from contamination.

Further, from the increased quantity of acids in the air, our buildings would be more acted upon and more rapidly disintegrated than they are even now. Still, this should not cause us to desire the less the final disappearance of these awful fogs. The sooty particles cause far more inconvenience and more disease than the increased amount of acids would. Only we would not have our readers look on it as altogether *couleur de rose;* there would still be a drop of bitterness in our cup. The next thing is to find out a plan for doing away with both.

THE WEEK.

TOPICS OF THE DAY.

The meeting of the British Association at Dundee, although not so great a success as some of the meetings of past years, yet produced some interesting papers and discussions. The papers in the Physiological Department are reported on by our Special Correspondent; but we here more especially refer to Mr. Pengelly's Report on Kent's Cavern; to Sir John Lubbock's paper on the Origin of Civilisation and the Early History of Man; and the communications of Professor Hirst and Sir David Brewster on the Pascal-Newton question. There seems to be now no reasonable doubt that man was the inhabitant of Devonshire, with the extinct lion, rhinoceros, mammoth, and hyæna. "In the stalagmite floor of the cave, twenty inches thick, below the black mould and blocks of limestone on the surface, there had been found part of a human jaw containing four teeth, and lower down a great abundance of beautifully shaped flint implements; more recently, burnt bones and, as now first reported, bone tools had been discovered." This, of course, only confirms what has been stated of other caverns; but the evidence of the coexistence of man in Europe with a very different fauna from the present is accumulating irresistibly. What may have been the date of the unpleasant period is an open question. Sir John Lubbock aired an opinion, which probably is shared by most ethnologists and anthropologists, that the primitive condition of man was one of utter barbarism, and that existing savages are not the descendants of civilised ancestors. Certainly we have but little evidence on the subject, but what there is seems in favour of the savage. The earliest record, indeed, represents early man as in a state of moral perfection —a condition which people may be forgiven for thinking entirely incompatible with civilisation.

Sir David Brewster completely disposed of the Pascal-Newton fictions. That a schoolboy of eleven should employ himself in writing letters on the infinitesimal calculus is so contrary to all experience of the habits of schoolboys, that it requires the evidence of a miracle to establish it. Moreover, the handwriting in the supposed letters, both of Pascal and Newton, does not correspond with their known autographs. The whole affair, however, is very extraordinary. The documents are said to be of a most elaborate kind, and the handwriting of from twenty to thirty eminent men has been imitated in them.

Politics were not quite drowned by the hum of the workers and the buzz of the idlers at Dundee. Before the Association separated, a meeting was held by the supporters of Sir John Lubbock in his candidature for the representation of the University of London. Several of the most influential members of the University gave in their adhesion to Sir John Lubbock, who comes forward as the representative of science.

We are glad to see in Tuesday's *Gazette* that two Medical officers — Dr. Matthew Stovel, late principal Inspector-General of the Bombay Medical Department, and Inspector-General Hare, of Lahore, Bengal Establishment—are decorated as Companions of the Order of the Star of India. The value of educated Medical Practitioners is perhaps better appreciated in India than at home, and in no country probably have the benefits conferred on all classes by the Medical Profession been more apparent. It is only fitting that the Indian order of Knighthood should contain the names of some Europeans who have other claims on the gratitude of the country than those of having conquered it.

A new planet is said to have been observed in America. Professor J. C. Watson, of the University of Michigan, is the fortunate discoverer. It is situated in the right ascension 1 degree 40 minutes, and in the declination 3 degrees 10 minutes south.

PROGRESS OF THE CHOLERA.

It is at once fortunate and remarkable that the cholera has not yet reached us from abroad. A few sporadic cases have occurred in England, and a good deal of English cholera has been "written down" Asiatic by sensational paragraph writers, but the epidemic which has raged with such violence on the Continent has not yet invaded our shores. It is as well, however, to be on our guard, and to take a glance at the progress of the disease in other countries. In Rome we are glad to be able to chronicle the suppression of cholera; according to the *Journal de Rome*, there has not been a case for several days. In other parts of Italy the epidemic seems on the wane, though it is by no means stamped out, and its effects, as shown in the dreadful panic which has seized on the different populations, have been disastrous in the extreme. The *Italie* puts down the number of those who have been ruthlessly murdered by the mob at considerably over eighty. To read the accounts in the Italian journals of the barbarities inflicted on unoffending citizens, and of the utterly lawless condition of the lower classes, one would think that absolute anarchy must prevail; and, indeed, such a supposition is not very far from the truth. A single example is characteristic of the effects of this panic. In the parish of the Cogliano, in the Rossanese, it was believed that the poisoners went from door to door and blew the infection through the keyhole. So firmly rooted became this impression that many of the inhabitants left their houses and camped in the open air, and the remainder kept up a succession of musket shots from their windows with a view of destroying those who they believed were spreading the poison. Cholera has been reported to be at Paris, Nice, and Mentone, but the statement has received an unequivocal denial. It is not, however, so clear that the epidemic has not reached Nantes. The Nantes journals are authorised to state that the American ship *Panama*, which has been put in quarantine for five days, had no cholera on board, and that the sufferers who were transferred to the lazaret included only cases of dysentery, hepatitis, intermittent fever, and phthisis; but this carefully constructed explanation looks at the least suspicious. In Poland the epidemic has been serious, the deaths up to the 1st inst. having been nearly 1900; and though cholera is less virulent in Warsaw than at first, it has broken out in the north-western districts with severity. From Persia we learn that the epidemic is decreasing and losing much of its virulence. Malta, as was anticipated, has not escaped. The cholera has been raging there with some intensity, and, singularly enough, chiefly among the militiary, its head-quarters being the camp. The 14th Regiment lost nine men in eight days, and has been sent on to Goza; the 8th Regiment is under canvas at Floriana. Among the

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civil population there were one or two cases only. In America the Indian territory seems to suffer most, but the telegrams give us no record of the progress of the disease. Thus we see that cholera is extending throughout many parts of Europe. It is but one step from Malta to Gibraltar, and another from Gibraltar to England. Cholera is certainly on the road, though it may never visit us. Still, we think the imposition of a strict quarantine upon all vessels arriving in our ports from Malta would be a judicious proceeding on the part of our Custom-house authorities.

CAUSE OF THE EMPRESS CHARLOTTE'S INSANITY.

Many of the late Emperor Maximilian's sympathisers attribute his misfortunes and death to the stolid selfishness of Napoleon III., but few have charged the French ruler with more than an indirect influence over the fate of the unhappy Empress Charlotte. It is not a little surprising, therefore, to find in the *Débats* of the 18th a statement to the effect that the insanity of the Mexican Empress was the immediate consequence of her interview with Napoleon. The *Débats* by no means guarantees the accuracy of this rumour, which, though it gives it every prominence, it publishes in "inverted commas," but it dwells on the statement and endeavours to explain it. It would seem that in the course of the interview bitter words and mutual recriminations passed between the sovereigns, and that the ultimate firmly expressed determination of Napoleon left the Empress in such complete despair that her mental faculties never recovered the effects of the shock they then received.

MEDICAL ARRANGEMENTS FOR THE ABYSSINIAN CAMPAIGN.

We have been given to understand that the Medical arrangements for the expedition to Abyssinia are, so far as concerns the Army Medical Department, limited to the equipment of the Hospital transport ships, and to the appointment of a Surgeon and Assistant-Surgeon of her Majesty's army to each of them, and that no Sanitary Officer to the British part of the expedition has yet been appointed. The topographical and climatic peculiarities of Abyssinia have of late been so frequently discussed in the public journals that, in fact, we believe everything that could have been said on the subject has been said. We see no reason to anticipate that the diseases of the country should materially differ from those of other intertropical regions with which the Medical officers of our army have such extensive opportunities of making themselves acquainted. It is well known how the hill climate of the torrid regions differs from that of the plains. So long as our men are on the higher elevations may it be expected that their health will be comparatively little affected. It will, however, be not only during the approach to these desirable altitudes that they may suffer, but even while making movements through them; "for every hill there is a hollow," and it will be found in Abyssinia, as has already been frequently experienced in the Himalayas, that unless the passage through valleys and low-lying ravines be performed rapidly, if possible in the day-time, avoiding altogether encamping or passing the night in such regions, malarious fevers or dysentery will attend their steps. That the European portion of the force should go to Abyssinia direct from India, with the experiences of that country fresh in the minds of both officers and men, is highly to be commended; and that the work to be done should be quickly accomplished, and the troops withdrawn before the setting in of the scorching heat of the plains, is much to be desired.

METROPOLITAN DISPENSARIES.

It will be remembered that certain portions of the Metropolitan Poor Act, 1867, authorise the Poor-law Board to direct the provision of Dispensaries, at which the Medical officers may see such of the sick poor as may be able to attend, and at which the medicines and Medical appliances required may be supplied on the prescription of the Medical officers. By the provisions of the Act these Dispensaries, when established, will be under the management of a committee elected by the Union Guardians, either from amongst themselves or from ratepayers assessed at not less than £40, annual rateable value. The Guardians are to provide the requisite accommodation, to find the medicines and Medical appliances, and to appoint a resident Dispenser. With the view of giving effect to this portion of the statute, the Poor-law Board have issued a circular to the Guardians of the metropolitan Unions, inviting their co-operation and observations. The Board remind the Guardians that "the salaries of the Dispensers and other persons employed in the Dispensaries, if the appointments have been sanctioned by the Poor-law Board, and also the expense of the medicines and Medical appliances supplied by the Guardians, will be repaid to them out of the Metropolitan Common Poor Fund." And there are placed before the Guardians, for their guidance in considering the question, extracts from the report of Mr. Lambert, Poor-law Inspector, on the system of Dispensary relief in Ireland, explaining the nature and extent of the accommodation which the buildings intended for Dispensaries should be capable of affording, and the general arrangements adopted in order to insure the due management and supervision of those establishments. We trust that the Guardians will take up this question in a comprehensive spirit, and, bearing in mind that the cost they may incur will be spread over the metropolis, will do their best for the poor. To insure this, we would advise them to invite their present Medical officers to give them the benefit of their advice and experience.

YELLOW FEVER AT NEWCASTLE, JAMAICA.

We regret to hear that yellow fever has continued to progress at Newcastle. In the 84th Regiment, up to the 24th ult., twenty-six deaths are reported as having occurred from this disease. During the last weeks ending 23rd ult. there have been twelve deaths, five during each of the weeks ending 9th and 16th, but only two during the last week. The troops have been put into camp, and the Hospital completely evacuated, the sick having been removed to a very elevated situation at Clifton Mount. It is to be hoped that these measures will have the effect of checking the further progress of the disease, the cases of which appear to be becoming less numerous and of less virulent nature. Kingston, Up Park Camp, and Port Royal are said to have been free from cases of yellow fever for some time past. We regret to see announced the death of Staff Assistant-Surgeon J. F. H. Richardson, at Jamaica, of yellow fever.

THE EPIDEMIC FEVER IN THE MAURITIUS.

By the latest advices from the Mauritius, we learn that during the month of July last the mortality from fever alone in the civil population of Port Louis has been 825, giving a daily average of 26·6. The daily rate has fluctuated, the highest (51) having occurred on July 8, and the lowest (11) on July 25. There was, however, a considerable mortality from other causes than fever; it amounted to 482, giving 1307 as the total number of deaths, and an average total daily mortality of 42·16. The ordinary average daily death-rate in Port Louis on a total population of 80,000 is estimated at 12 and taking into consideration the immense reduction in the population which has taken place from death and flight—fully 20,000—and reducing the ordinary death-rate to the same extent by 25 per cent., there ought only to have occurred 9 deaths daily as compared with 42. But even this number is considerably less than the average daily mortality of the six preceding months. With the exception of two batteries of artillery and two companies of engineers, the garrison of the Mauritius has been completely changed by

the withdrawal of the 2nd battalions of the 13th and 22nd Regiments, and the arrival of the 32nd Regiment. Most of the cases of fever which occurred during the month among the troops were relapses in men who had already suffered. They have not in general been severe, and no death occurred, so that we may hope that the 32nd Regiment, having arrived in good health at the commencement of the waning of the epidemic, may be able to resist its influences.

THE CASE OF CANNIBALISM AT ST. THOMAS'S.

We are requested to state that the paragraph which appeared in some of the daily papers imputing an act of cannibalism to a Medical student of St. Thomas's Hospital is false in fact. The delinquent was not a Medical student, but a mere assistant in the chemical laboratory of the Hospital, and, on the fact coming to the ears of the authorities, was immediately dismissed. The disgusting act seems to have been perpetrated under the pretext of performing a scientific experiment!

GALLANT CONDUCT OF A MEDICAL OFFICER.

We adverted a few weeks ago to the subject of the Victoria Cross in connexion with the case of a Medical officer to whom it had been refused. We thought the discussion in the public journals of the claims of a Medical officer to this distinction open to serious objection. Recognising most thoroughly the right which Medical officers have to this honour when they have earned it by deeds of devotion and bravery, we could not help indicating that if the emulation to gain it be the dominant feeling in a man's heart, there is some risk of danger to the best interests of the service. A Medical officer might make his Professional duties subsidiary to his desire to exhibit his qualities of gallantry and valour. We added that when an opportunity occurred unsought for in the path of duty there were no men more deserving of this honour than Medical officers. A case has recently occurred which so admirably illustrates what we then said, that we have peculiar pleasure in calling our readers' attention to it. On May 7 last a detachment of the 2nd Battalion, 24th Regiment, with others, was sent to the Little Andaman Island to inflict some punishment on the natives for the barbarous murder of some Englishmen who had landed there some time before. The detachment landed, and, while carrying out the duty on shore, a strong breeze sprang up, and the sea, which had been sufficiently rough to make the landing at first difficult, became most turbulent; waves of great size dashed upon the beach, one of the boats was upset, and an officer of the Indian Service was drowned. Dr. Douglas, an Assistant-Surgeon in the 24th Regiment, was on duty in one of the boats, and, by his coolness, judgment, and intrepidity, was the means of safely re-embarking the party. At the risk of his own life with his soldier crew he gallantly made three trips through a heavy surf to the shore. This was only to be accomplished, we are assured, by no ordinary exertion and skill, and Dr. Douglas worked his boat in so seamanlike a manner that it appeared an ordinary act of his every-day life. This is exactly as it should be, and we are not surprised that the Commander-in-Chief reported this intrepid and disinterested conduct to the Governor of Madras, who has recommended Dr. Douglas and his brave crew of four men to the special consideration of her Majesty's Government.

FROM ABROAD. — THE PARIS INTERNATIONAL CONGRESS — SUICIDES IN VIENNA IN 1866 — VACCINE VIRUS AND GLYCERINE.

Several of the Paris Medical journalists seem to agree with their foreign *confrères* that the late International Congress has been a comparative failure. So many subjects were introduced very unfitted for *viva voce* discussion in a large and mixed assembly, and so much better calculated for calmer examination by academies and journals; while many others of a cosmopolitan and Professional interest were either passed over altogether, or utterly spoiled by the way in which they were managed. Thus, in place of a grand consultation on the diminution or prevention of the spread of syphilis, one or two meetings of the Congress were wasted in the tumultuous pitched battle between MM. Ricord and Auzias-Turenne, so often fought by them before with the same results, on the subject of syphilisation. Then the social arrangements were so utterly faulty, no means being taken to bring men together and make them acquainted with each other, or even to give them facilities for doing this for themselves. Everything was done in haste and confusion; even the dinner was so insufficiently announced that many were not aware that it was projected, while to a banquet of Medical journalists the editors of almost all the principal journals were forgotten to be invited. The attitude of Professor Virchow has been much commented on, as exhibiting the Prussian politician rather than the *savant*. He is said to have repelled all advances, although these were of the most flattering character, and even to have been so indiscreet as to make disparaging remarks at the German Medical Society of Paris upon those who did their best to do him honour, both by electing him into the Academy and by personal attentions. It is added that one reason why he abstained from taking any part in the Congress was the almost utter absence of Parisian Medical men of any note—an absence, in fact, universally remarked.

The number of deaths which came under the cognisance of the Vienna Sanitary Police during 1866 amounted to 749, and these consisted of 95 deaths from suicide, 125 from accidents, and 529 sudden deaths and deaths from unknown causes. There were 95 undoubted suicides, being 14 less than in 1865, and of these 36 took place by hanging, 25 by poison, 13 by precipitation from heights, 9 by firearms, 6 by sharp instruments, 5 by drowning, and 1 by inhalation of illuminating gas. As to the ages at which the suicides occurred, the most frequent were between 20 and 30 and 40 and 50 (each 23 cases), next between 30 and 40 (19), and between 50 and 60 (18). Between 60 and 70 there were 6; from 14 to 20, 5; and above 70, 1. There were 69 males and 26 females, May being the month in which the greatest number (18) of suicides took place, and September that of the fewest (3). As already remarked in former reports, while in the females the number who committed suicide by poison (9) exceeded those who did so by hanging (5), among the males the number of those who hanged themselves (31) was double that of those who poisoned themselves (16). As to the mode of poisoning, this was accomplished in 10 (8 males, 2 females) by cyanide of potassium, in 6 (2 males, 4 females) by sulphuric acid, in 3 (1 male, 2 females) by phosphorus, in 2 (1 male, 1 female) by soap-lees (*Laugenessenz*), in 1 by corrosive sublimate, in 1 by prussic acid, in 1 by strychnine, and in 1 by opium, all these being males. All the deaths caused by firearms occurred in men, as did those from sharp instruments, with one exception.

We recently noticed the great approval which Dr. E. Müller, the official vaccinator at Berlin, had expressed of the plan of mixing the vaccine virus with glycerine, as a means of facilitating its employment and preservation. In a late number (August 12) of the Berlin *Klinische Wochenschrift*, Dr. Kipp, of Unna, completely confirms this statement, and describes his own plan of procedure, which, he says, is of more simple execution than that of Dr. Müller. After opening the vaccine pustule he allows it to discharge until some quite clear drops appear, which he takes between glasses. A drop or two of glycerine mixed with distilled water are then let fall on one of the glasses, which are rubbed against each other to secure due mixture. When this mixed lymph has to be used, the glasses separate from each other much more easily than when glycerine is not employed. Charging his lancet freely from the glass, mixing the lymph the while, Dr. Kipp then makes eight scarifications in the arm, each half an inch long, with-

out having to take fresh lymph, and in seven-eighths of his cases a long large pustule arises at each scarification—this procedure being, in fact, much more efficacious and far less painful than the ordinary punctures. Lymph mixed with glycerine has been preserved for four months in a heated room, and yet proved quite as efficacious in producing these eight pustules. It may be kept still longer in capillary sealed tubes.

THE CHOLERA IN SWITZERLAND.

(*From a Correspondent.*)

THERE is no doubt that the cholera is pretty widely disseminated over Switzerland and North Italy; and it has occurred to me that some few memoranda upon it might be agreeable to the readers of the *Medical Times and Gazette*, at the same time that the publication of them may not be without use here. Switzerland is so much frequented by travellers from England, that it is in the interest of both countries that everything connected with a pestilence that spares neither native nor stranger should be fully made known and criticised.

The brunt of the attack has so far fallen upon Zurich, According to the last advices I can get, there had been, up to September 12, 322 cases in the city and its environs, and 191 deaths. The disease was clearly imported. A child, who with its parents had lately arrived from Rome, where it had had cholera, died of the after symptoms. The washerwoman who washed its linen died next. Two persons who lived in, or took food at, the house, were next attacked. These persons lived in an old, long, filthy, airless street—the Niederdorf. Up from July 28 to August 25, there were 24 cases and 17 deaths. In the fifth week there were 42 cases and 18 deaths. The sixth week—*i.e.*, to September 7—there were 120 new cases and 84 deaths, and thence, up to the 12th, 132 new cases and 72 deaths; total, so far as my advices go, 322 cases from July 28 to September 12, and 191 deaths. I gather these figures, so far as the first four weeks are concerned, from a letter dated September 11, which appears in the *Journal de Genève* of September 15, and the rest from the daily bulletins which are published in all the Swiss papers. It will be seen that this is a pretty sharp visitation for a city of 45,000 inhabitants (suburbs included); and whereas at first the disease was confined to that one low street, it has now spread to all the city and its vicinity, and affects persons of all classes. It was in the same street, and in the same manner, that the disease broke out in 1855; first a stranger died, then the washerwoman.

We hear of cases dotted about over the rest of the country, but it is difficult to get exact numbers. At Martigny and in its neighbourhood, there were at least a dozen deaths at the end of July and beginning of August. It has visited many other places in the Rhone valley. We hear of one death at Morcote, Tessin, on the 11th; one at Aarau on the 12th. On the Piedmontese side there were 17 cases and 10 deaths reported at Turin on the 9th; 43 cases and 27 deaths in the province of Milan on September 8 and 9; 7 cases and 10 deaths at Genoa; at Chambéry, from 5 to 8 deaths daily.

Now for a few words on the moral and physical means employed against the enemy.

The people of Zurich are much to be praised for their manliness and candour; they seem to tell the truth, and the whole truth, and so inspire confidence, for when men venture to tell the truth against themselves it is very unlikely that they will omit doing all that needs be done. Not so, however, at all places. There is no doubt that the demon of covetousness has caused many a suspicious death to be hushed up for fear of frightening away that useful milch cow, the British or Yankee tourist. One example of this, both ludicrous and disgusting, occurred at Martigny; and I vow that though I would willingly visit any hotel in Zurich, I would neither eat, drink, nor sleep at Martigny, and it would be a wholesome act of justice if travellers put that place under a ban for ten years. In the immediate neighbourhood, half a dozen persons died of cholera very suddenly in the last week of July. The bodies were buried at night, and the thing was kept snug. Some Physicians of the neighbouring town of Aigle—Drs. Bezencenet and Chausson—determined to ferret out the truth, and visited the town and published the results. Whereupon the "authorities" of Martigny, consisting of M. Dallèves (the priest), Dr. Lugon (a homœopathic Physician), and M. Closint, published, on August 4, a statement dated July 31, in which they affirm that there had been no death for a month at Martigny *ville*, and that at present there were no sick—the fact being that the cases had been in a *suburb*, and not in the *ville*, and that all who had sickened had died by the 31st. MM. Bezencenet and Chausson were, however, not to be put down in this way. They returned to Martigny, called on Dr. Lugon (who seems a very poor devil), and made him confess the fact of the cholera; and induced him to promise that he would keep them informed of any fresh cases, only that the letters should be directed in his wife's handwriting, so that they should not be recognised at the post-office!

In fact, to hush up the evil, for fear of frightening away travellers, seems to have been the leading idea of the Martigny people. Their argument was this. Poverty is the greatest evil; to make known the cholera will make us poor; *ergo*, etc., etc. To such a length did these people go, that a poor wretch named Pierre Moix, whose wife had died of cholera at Batiaz, near Martigny, and who had had the disease himself, was, with his two children, expelled from Batiaz on August 2 by M. Saudan, the President of that commune, for being a stranger and chargeable to the public, and was found wandering in the streets of Sion. This happily led to the suspension from his office of M. Saudan by the Conseil d'Etat of the Valais. He, too, had declined to take proper precautionary measures, for fear of alarming the public. Here we see repeated certain formulæ, of which at home we are ashamed. To show the extent of absurdity to which people can go, let me quote the following passage from the *Courrier des Alpes* of September 9, relative to the very smart epidemic at Chambéry:—

"In reality the epidemic is *d'une assez grande bénignité*; it does not act in a *foudroyante* manner; and we may say, that if the sick could but help being frightened (*si les malades pouvaient ne pas s'effrayer*), they would almost all be cured."!!

So much for the moral side of the question. But what are they doing in the way of physical prevention? Why, very much. Immediately that the disease appeared at Zurich, a most rigorous visitation and search were instituted, over—*credite posteri!*—over the baskets of the applewomen in the markets, and on August 2 a considerable quantity of unripe fruit was seized and thrown into the Limmat. As a fitting supplement to this imbecile measure, we learn from the *Messager des Alpes* that this activity of the Medical police of Zurich was "singularly misinterpreted" at Wipkingen, where the children, seeing fruit floating down, as apples are wont to do, looked upon them as a godsend, fished them out, and ate them "*sans réflexion*," says the report, and we believe we may add *sans stomach-ache*. But in truth the Swiss public is in this respect on a par with the English Board of Health forty years ago. Go where you will, you hear of the necessity of *surveillance* over the *légumes* in the market, and I am assured that poor countrywomen have been seen weeping in the market at Lausanne over the confiscation of their wares.

But you will say that if rational beings can be so rigorous against unripe fruit, which may by chance be an occasional predisponent to cholera, of course they will have done already all that modern science indicates against those impurities which are known and proved to be the very means of propagating it. Alas! no. In this respect knowledge and practice diverge widely. Nothing can be fuller and more precise than the instructions which have been drawn up by the Medical authorities (at Lausanne, for example). They might have come from our own Registrar-General's office. They show the evils of fæcal *immondices*, the necessity of disinfection, and more particularly the necessity of absolute cleanliness and disinfection of the *latrines*, etc., at all railway stations and hotels. These papers give some useful details as to disinfectants, more especially as to the quantity *per* person *per diem* requisite to disinfect the dejections of any given family. They dilate on the necessity of keeping the fæcal matters in a state of *acidity*, and give the preference to sulphate of iron, of which they direct 25 *grammes*, 1 *once*, or 375 grains to be used daily for each person. The chloride of lime is clearly going out of favour, but I suspect that if Mr. Calvert would send a cargo of his goods we should hear more of the phenic or carbolic acid. One specimen which I saw of

acide phénique brut did not seem very good, and was very dear.

It is not for want of knowledge, then, that the Swiss do not take vigorous measures against the impurities that lead to cholera; but there is want of authority. "We are, *unhappily*," said a gentleman to me, "under a *popular* Government. They will confiscate the baskets of marketwomen, but dare not meddle with the cesspools of householders. The Swiss Government is but a big vestry, and to suppress a pestilence we want absolute authority." England, we all confess, is not so sweet as she ought to be; but as for the Continent, Switzerland included, it stinks. In the older parts of Geneva, the stenches this month were appalling. At the *latrines* of the railway stations of Geneva and Lausanne, the state of filth and stench was inconceivable. In the older parts of Lausanne, the air is flat and nauseous, and I am told that typhoid and cholerine are endemic. On one road I know, leading for a mile or more out of Lausanne, it is difficult to walk without holding your nose, because of the stench from the cesspools of houses.

The fact is that every house has its cesspool, and these are not purified, spite of the injunctions of the Physicians; and whilst the citizens are *invited* to do this, there is no authority to compel them.

But, in plain truth, long as the world has lasted, we are yet without certain and perfect means for ridding our cities of human impurities. I cannot now enter into a discussion of all the various modes and their defects, but from all that I have seen in England and elsewhere I feel convinced that the *earth closet* is the thing for detached houses, and for all small towns under (say) 250,000 inhabitants.

Let me add that the Swiss newspapers, as the *Gazette de Lausanne* and *Messager des Alpes*, seem to steer popular opinion rightly. X.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THIRTY-SEVENTH ANNUAL MEETING—DUNDEE, 1867.

(*From our Special Correspondent.*)

TUESDAY, September 9.

In my last letter, I reported to you that this year there would be a new division of Section D—*Biology*. This division has been carried out with perfect success, and with the most excellent practical results. The Section, as a whole, is under the presidency of Professor Sharpey, who has discharged his important functions with that serene and judicial administration and that breadth of knowledge for which he is so eminently distinguished. After the opening of the Section on Thursday with an inaugural address by the President, the members separated into two departments — a Department of Zoology and Botany, presided over by Professor Busk; and a Department of Anatomy and Physiology, Dr. Sharpey personally presiding here, with Dr. Spencer Cobbold, Dr. Michael Foster, and Professor Turner as his efficient and indefatigable Secretaries. With the exception of one or two papers in the allied Sections, I shall confine myself exclusively to the papers of the Anatomists and Physiologists, who have been listened to every day with marked interest.

SECRETION OF BILE.

The first paper of the department was by Professor Hughes Bennett. It related to the secretion of bile and the influence of mercury in increasing or arresting that secretion. Last winter a committee was formed in Edinburgh to re-investigate the amount of bile secreted in health and after the administration of mercurials. This committee was composed of Professors Christison and Maclagan, of the Edinburgh University; Dr. Rogers, formerly of St. Petersburg; Drs. Rutherford, Gamgee, and Frazer, assistants in the Edinburgh University; and Professor Bennett, the Chairman and reporter. After studying all that had been previously published by authors (an account of which was furnished by Dr. Rogers), the committee proceeded to make further experiments on dogs, the animals which had been found best fitted for the purpose. These experiments were carefully conducted by Drs. Rutherford and Gamgee, occasionally assisted by Dr. Frazer, and superintended by the committee. Professor Bennett gave the results of four series of experiments as to the amount of bile secreted with and without mercury. In each case the weight of the animal was ascertained, a fistula formed, the amount of food ascertained and analysed, and the secretion of bile for twenty-four hours measured, and its solids and salts ascertained. Tables were exhibited, in which the results arrived at were estimated in relation to each kilogramme of excrete and of food. The greatest variations were found to exist in the amount of bile secreted daily, independently of the amount of food or other obvious cause. The same fact was observed when mercury was given. No conclusions, however, were drawn, as further researches were required before so intricate and difficult a subject could be sufficiently investigated.

EXHIBITION OF PREPARATIONS OF BILE DUCTS.

Dr. M. Foster exhibited some preparations by Professors Hering, Kölliker, and Eberth, showing the minute anastomosing passages by which the finest bile ducts commence in the liver. Thin blue threads of injection material could be seen passing over and among the cells, but always arranged in a certain order, as was explained by Dr. Foster. A similar series of preparations from the liver of the rabbit was exhibited by Professor Turner. The bile ducts in these specimens were inspected by Mr. A. B. Stirling, assistant in the Anatomical Museum of the University of Edinburgh.

INFLUENCE OF AIR ON VITAL ACTION.

In this paper its author—Dr. John Davy—described a certain number of experiments, the result of which showed how much longer some animals are capable of resisting privation of air than others. In one instance an egg, an inchoate animal so to speak, was hatched, producing a healthy chicken, after having been acted upon by an air-pump twenty-six days. A young bird expired in about half a minute, a fish—the minnow—in about half an hour, the frog and toad in about the same time, the earthworm in about an hour and a half; insects, such as the bug, dragonfly, and butterfly, after apparent death for more than an hour, recovered on exposure to the air, and that repeatedly. By other experiments on birds by means of submersion in water, he showed that different species vary greatly in ability to bear exclusion of air; thus while all the snake birds of which he had made trial expired under water in a minute or less, the buzzard lived about twenty minutes and a half, the common fowl about four minutes and a half, the goose and duck about ten minutes. Reasoning on the results, he infers that each individual animal has something peculiar in its organisation determining its peculiarities of function or action, peculiarities more readily described than accounted for. The author holds the subject to be in a great measure mysterious, nor is he sanguine, referring to the new and ingenious views on the genesis of species, that they will tend, except partially, to enlighten the subject, considering that life itself is a mystery, and the origination of life, as regards Natural Science, an unsolved problem.

EFFECTS OF SOLAR RAYS UPON ANIMAL TISSUES.

A paper by Dr. G. Robinson, on certain effects of the concentrated solar rays upon the tissues of living animals immersed in water, was read by the Secretary, Professor Turner. The author opened by showing that of all fluids water, next to air, is that medium most intimately connected with animal and vegetable life. He had been hence led to examine the effects produced, by concentrating the solar rays on numerous bodies immersed in water, and he believed that sufficient results had now been obtained to justify the prosecution of the subject. His experiments showed that by concentrating the solar rays upon the skin of the hand the same immediate burning pain, followed by inflammation and vesication, was produced as if the part had been similarly heated in the air. The subaqueous concentration of the rays on any part of the surface of aquatic animals gave rise to instant pain, and when the focus could be retained for a few seconds on the head of a tadpole or small fish, death immediately resulted as though from an electric shock. That this action was rather physiological than purely physical, the writer endeavoured to prove by a variety of considerations. It thus appeared that the nervous structures of living animals are peculiarly sensitive to the stimulating agencies present in the solar rays, irrespective of the actual heat of the latter, and it is thus rendered probable that it was not the calorific element of those rays that produced the effects witnessed in

the experiments. Whether or not their actinic or chemical part chiefly operates in these cases, or whether another active power still more nearly allied to electricity, or to the nervous force itself, is really contained in the sun's rays, must be left for future research.

COAGULATION OF THE BLOOD, AND CORRECTION OF THE AMMONIA THEORY.

In this paper, Dr. Richardson publicly withdrew his well-known theory of coagulation of the blood. Defending the experiments on which that theory was based, and urging that, at the time it was advanced, it rested on a reasonable induction, he added that further research had shown him there were such strong physical objections to it as a theory, that it was no longer tenable. He first called attention to the leading experimental facts on which the theory was based, and after explaining how consistently every experiment pointed to the inference that coagulation is due to the escape of a volatile substance from blood, he passed to explain the reasons which had led him to conclude that the evidence in support of that view was no longer reliable. From this point Dr. Richardson proceeded to illustrate his present views on the subject of coagulation, with special relation to the cause of the phenomenon. Some recent experiments which he had made on the influence of extremes of heat and cold on albuminous and fibrinous fluids, have shown to him that the process of coagulation in these fluids is due to a communication of caloric force to them, and to a physical or molecular change, determined by the condition of their constituent water. Thus all substances which possess the power of holding blood in the fluid condition, such as fixed alkalies, various soluble salts, and volatile alkali, in every respect act after the manner of cold. They render latent so much heat, and in the absence of that heat the fibrine remains fluid. In the opposite sense every substance which combines with water, and produces condensation, with liberation of heat, quickens coagulation. The direct effects of heat and cold illustrate the same truth, and upon these facts turn the differences of coagulation in animals of different temperatures. The author continued to state that in the ordinary condition there is a constant process similar to coagulation progressing in the living body in the formation or construction of muscle, and a steady and persistent interchange of force from these parts, which are solidified by cold and fluidified by heat, to those which are rendered solid by heat. He concluded by showing that the process of *rigor mortis* was an illustration of the same order of phenomena.

The President, Professor Turner, Mr. Nunneley, and Dr. Davy discussed this paper, all of them expressing their admiration that the author should have had the moral courage to renounce a theory which had gained so much favour with the world, and had brought him so wide-spread a reputation.

On Friday the section met again, under the presidency of Dr. Sharpey. Professor C. Martens commenced the proceedings by exhibiting *an osteological specimen and photographs to illustrate the comparison of limbs deduced by the torsion of the humerus.* Dr. Ogilvie followed with a paper "*On the Eggs of Birds,*" bearing principally on the structure of the shell and its adaptation to the function of respiration. The paper was full of interest.

THE EPIGLOTTIS.

Sir Duncan Gibb read "*On Vocal and other Influences upon Mankind at large of Pendency of the Epiglottis.*" The learned Baronet illustrated his subject with many large and coloured diagrams, and announced the startling fact that in Great Britain no less than 3,177,627 persons have a pendent epiglottis. The announcement created a lively satisfaction, and a debate ensued.

EXPERIMENTS WITH POISONS ON FISH.

Dr. McIntosh communicated next a series of very interesting "*Experiments with Poisons on Salmon.*" The fish being young, the modification of function in the moving organs of the body, as the heart, could be directly observed. In chloroform it was seen that muscular irritability—voluntary irritability—could be excited for some time after the heart had ceased to act. Bleaching powder in solution proved excessively fatal.

PROTAGON.

Dr. Bennett read a paper "*On Protagon in Relation to the Molecular Theory of Organisation.*" He brought forward a specimen of protagon itself, and explained that under its influence various forms of organised matter could be produced, such as pus cells and nerve cells.

The proceedings of the day in this section were brought to a close *by some experiments of freezing the nervous centres* by Dr. Richardson. They were experiments similar to those which have been so fully described in our columns in the experimental and practical lectures.

On Saturday the physiologists held a day's rest from work, and besped themselves in large numbers to St. Andrews. The peaceful old University city was a charming place for repose, and about its romantic history many a tale was told and many a relic exhibited. In the evening, in the great Hall of St. Salvator's College, Principal Tulloch presided at a sumptuous entertainment given by the University, at which nearly all the scientific celebrities were present. The whole proceeding passed off in perfect order, and we may say with brilliant effect; all that was wanted to crown the effort was a few honorary degrees for the leading members of the Association, aay the presidents of the sections.

REPORT ON METHYL COMPOUNDS.

On Monday the section met for the third time, Dr. Sharpey again presiding. Dr. Richardson opened the day's work by reading his "*Report on the Compounds of Methyl.*" He exhibited the new anæsthetic which he has brought out—the bichloride of methylene—and showed it in operation by experiment.

ANIMAL SPECTROSCOPY.

Mr. E. Ray Lankester described his "*Observations with the Spectroscope on Animal Colouring Matters.*" Mr. Lankester's observations were made upon various coloured substances in the lower animals. By this means he had detected chlorophyl in *Hydra* and the fresh-water sponge, which had before been suspected to be present, but of which there was no certainty. In various worms, in an insect larva, and in a mollusc, he had found the same red substance (cruorine) discovered by Stokes in the blood of man and vertebrates. This was remarkable, since the red matter was deficient in nearly all molluscs and insects; and, moreover, in vertebrates it was concentrated into red corpuscles, which was not the case with invertebrates. A new green blood-colouring matter was described by its spectrum—found in the blood of some annelids. A large number of orange, red, green, and yellow pigments were obtained in solution by ether, from marine sponges, polyzoa, crustacea, and other animals; but none of these had given definite absorption bands by which they could be recognised and characterised. It appeared that mere pigments did not present the phenomenon, whilst other bodies not of a fatty nature did. It was very desirable that further observations should be made with the spectroscope on animal substances.

TEETH OF FOSSIL FISH.

Professor Allen Thomson exhibited "*Microscopical Preparations of the Cochlea, of the Retina, and of Teeth of Fossil Fishes,*" giving explanations and remarks upon the points of interest evolved by the specimens. At the conclusion of his observations, he apologised for the crude state in which they were presented, and expressed a hope that in the future management of Section D some special opportunity might be given for such exhibitions and explanations, so that those more interested in regard to them might be better able to exchange information and opinions than they were in the public room of the Section. He was no admirer of miscellaneous microscopic exhibitions, but thought that the adoption of the suggestion he had made, for special exhibitions, might be productive of much advantage, and he was anxious that the idea should be brought before the managing body of the Association by some gentleman more permanently connected with it than he was.

Professor Cleland read a paper "*On the Epithelium of the Cornea of the Ox, in relation to the growth of Stratified Epithelium.*"

Professor Cleland also read a paper "*On some points connected with the Joints and Ligaments of the Hand.*"

The final meeting of the Section was held on Tuesday.

Professor Turner exhibited microscopical preparations in illustration of the minute anatomy of the nervous system.

THE CORNEA.

Professor Cleland exhibited a microscopical preparation of the nerves of the cornea, and gave brief explanations regarding the specimen, which showed the general arrangement of the nerves. He mentioned that recently, when working for class purposes, he had found minute canals converging inwards over the anterior capsule of the lens from the canal of Petit, and had succeeded in injecting them with carmine.

OVA OF CEPHALOPODA.

Dr. C. Collingwood read a paper on "*A New Form of Cephalopodous Ova*"—the ova of some forms of cuttle-fish. The paper was taken up mainly with a description of what seemed a jelly obtained by Dr. Collingwood from the sea during a voyage to the East, and which he found to contain an immense number of ova, believed to be of cephalopoda.

Professor Thomson mentioned that thirty years ago he had found a somewhat similar mass of jelly containing ova of the octopus.

THE SULPHITES AS ANTISEPTICS.

Dr. Richardson read a paper by Dr. Polli, "*On the Antiseptic Properties of the Sulphites.*" Dr. Polli had undertaken an investigation as to the action of the sulphites of lime, hyposulphite of magnesia, sulphite of magnesia, sulphite of soda, and granulated sulphite. These substances were found to possess all the properties of sulphurous acid, with the advantage that their action was more uniform and certain and constant. In experimenting on animals and himself, Dr. Polli found that large doses could be taken without risk. On killing animals treated with sulphites, and others not so treated, he found that the former were most slow to decompose, and, indeed, remained quite fresh when the others were putrescent and offensive. Another series of experiments showed that the administration of the sulphites was sufficient to effect a more or less rapid cure in cases where blood-poisoning was present, as in fevers. The author thought his observations conclusive as to the excellent influence of the sulphites on the septic diseases, and remarked that it was for the purpose of exciting others to observe in the same field that he had brought his researches under the attention of the scientific world.

LIFE AND MIND.

Mr. Robert Dunn next read "*On the Phenomena of Life and Mind.*" He set out with the observation that they knew nothing of life apart from an organisation, and had no evidence of mind independent of a brain and nervous system. He went on to say that the agency of matter and the physical forces were as essential to the manifestations of life as life itself was to the display of intelligence. Yet they were not to confound the vital and mental forces with the physical, for the truly vital phenomena—the processes of formation, growth, and multiplication—occurred in living beings only, whereas the development of light, heat, and electricity, whether they occurred in living organisms or in inanimate matter, were purely physical phenomena. The living germinal matter of the organisation was alone the seat of vital actions. All attempts to give vitality by means of the physical forces to inanimate matter had been vain and futile. Not the slightest approach had been made towards the formation of anything having the properties of the lowest and simplest form of living matter.

Professor Turner read a paper by Mr. P. Melville "*On Life: its Nature and Origin,*" and the two papers were then discussed together, giving rise to a brisk and interesting debate.

The Section having been brought to a close, Dr. Richardson proposed a vote of thanks to Dr. Sharpey, which was seconded by Dr. John Davy and carried with acclamation.

Now Dundee is undergoing denudation. It is Wednesday afternoon; the great meeting of dissolution has been held; the most agreeable demonstrations of mutual applause have been heard; Norwich has won the honour of entertaining next year; the animals called the red lions have howled and fed together; and your correspondent, who would not write a word more if he could, can't, because he is wanted by Mr. Provost of Dundee to take part, with some 300 other miserables, in the last day's banquet.

THE CONVALESCENT HOME erected by public subscription at Bournemouth, at a cost of £5000, to the memory of the late Lord Herbert of Lea, will be opened the latter end of this month.

REVIEWS.

On Diseases of the Lungs and Air-passages; their Pathology, Physical Diagnosis, Symptoms, and Treatment. By HENRY WILLIAM FULLER, M.D. Cantab., Physician to St. George's Hospital, etc. Second Edition. London: John Churchill and Sons. 1867. Pp. 534.

THIS book, the second edition of which is now before us, appears to have been acceptable to the Profession. The author has omitted in the present issue the sections relating to diseases of the heart and great vessels. So far as we have been able to judge, he has not failed to lay before his readers the results of the several investigations carried on since the date of the first edition (1862). Hence the book may be regarded as fairly representing the present state of our knowledge of diseases of the lungs. Although a book specially adapted for the use of students of Medicine, it is anything but a compilation. Dr. Fuller has used to the fullest extent the advantages which his position at St. George's Hospital has afforded him, and has formed distinct views of his own upon all the more important questions relating to his subject. The article on Pulmonary Consumption is especially valuable. It is needless that we should review the book at any length. We think Dr. Fuller has acted judiciously in confining himself in this volume to the discussion of pulmonary maladies, and we hope that before long we shall see Parts III. and IV. of the former edition in the form of a separate work.

Syphilitic Affections of the Nervous System, and a Case of Symmetrical Muscular Atrophy; with other Contributions to the Pathology of the Spinal Marrow. By THOMAS READE, M.B. (T.C.D.), L.R.C.S.I. London: John Churchill and Sons. 1867. Pp. 111.

A CONSIDERABLE part of this book is devoted to discussing a question of priority—namely, whether the author was the first distinctly to diagnose the origin of disease of the nervous system in a syphilitic diathesis. He describes a case of tertiary syphilis complicated with quotidian ague in which, as early as 1837, he succeeded in curing the patient by mercurial inunctions after all ordinary antiperiodic remedies had failed to give relief, and details in his preface the circumstances which hindered the publication of other observations before the year 1851. We do not hold it any part of a reviewer's business to settle such points, except where outrageous claims are made that ought to be exposed to Professional contempt. Mr. Reade's case is not one of this order. He has been attacked by M. Zambaco, and has a right, if he thinks fit, to prove his claim, and especially so as he appears not to have been very well treated in the matter. But quite apart from this, and taking the book, as a scientific production, upon its own merits, it is one which will repay careful reading. The cases narrated are to the point, although brief; and if the publication of Mr. Reade's experience (or perhaps we should rather say its republication) has no other result, it will serve to direct the attention of British Practitioners to a point in the etiology of diseases of the nervous system which some are apt to overlook. Still, we must warn all against the notion that the association of paralysis, epilepsy, insanity, and so on with constitutional syphilis, is no proof that they are necessarily dependent upon the latter as their sole cause, or require what we term specific treatment. Mr. Reade's book is a small one, and does little more than introduce the subject. More extended information will be found in Zambaco's prize essay, and in the work of M. Lagneau.

Where shall we get Meat? The Food Supplies of Western Europe. By JOSEPH FISHER. Longmans.

THOMAS MILLER, the basket-maker, in his "Pictures of Country Life," published in 1847, in treating of English villagers, says:—"One half of the world does not know how the other *starves*." In the twenty years which have elapsed since these words were written, this melancholy truth has increased in extent and intensity. Benevolent societies—for example, the Society of Arts—and patriotic individuals, among whom is the author of the work before us, have striven to lessen the evil. Mr. Fisher has visited some of the Channel islands, a portion of France, Switzerland, Belgium, Holland, and the Rhine, to ascertain how the civic population is fed,

and how the agriculturists raise enough for themselves, for their brethren in the towns, and, when able to do so, for exportation.

This last takes place either in cereal grains or in cattle, which latter again comes either as carcases or live stock. The pestilence, or cattle plague, has greatly interfered with the latter, while various circumstances, in different countries, influence the production of grain. The seasons, always variable, peace or war, stability of governments, and peculiar habits and institutions, more or less influence the quantity of food produced each year. The miserable pittance earned by agricultural labourers in most parts of the country causes the younger set to flock to towns and the older ones to emigrate. This, according to Mr. Fisher, is a great national evil; and to the diminished labour (by human power) he ascribes the high and increasing price of meat.

His remedy is to revert to the condition described by Goldsmith:—

> "A time there was, ere England's griefs began,
> When every rood of ground maintained his man."

Small portions of land, from four to six or eight acres, he wishes to be the utmost under any one man's control, and (if he can have his way) to be the personal property of the cultivator. This is at variance with the present received notions that high farming and long leases with liberal covenants afford the best prospects of increased production of food. The increased price of meat is not the result of the cattle plague, though this last afforded a plausible ground for making it, as it was readily believed by the consumers. The rise would have taken place under any circumstances, *and actually was taking place prior to the outbreak of the disease.* Mr. Fisher himself remarks that it was not the slaughter of 10,000 head of cattle which raised the price.

When we read that at the beginning of the last century beef was about 2d. per lb., and mutton even less, we are inclined to envy the paterfamilias of that day, forgetting the *different value* of money, though the same denomination is retained. A great rise in the prices of all commodities took place in the time of Henry VIII.; and why? "The cause of this rise," says Doubleday on the "True Law of Population," "was the discovery of the gold and silver mines of Mexico and Peru, and the constant addition to the quantity of money in circulation, which was, as a consequence, going on."

A similar result is now taking place from the great influx of Californian and Australian gold. There is a *rise* in the price of provisions, while there has been a *fall* in the value of money; therefore more liberal wages should be given to workmen and labourers, and the adjustment of their relative values would put an end to *strikes*. Though we disagree with Mr. Fisher as to the remedy, we admit the existence and appalling nature of the disease, and cannot but acknowledge that his book is replete with much interesting statistical information and philanthropic aspirations.

A Handy Book of Meteorology. By Alexander Buchan, M.A., Secretary of the Scottish Meteorological Society. Blackwood and Sons, Edinburgh and London. 1867. Pp. 204.

The science of meteorology has become of late years much more popular among educated and intelligent people than it used to be. As a branch of learning it has attractions of its own sufficient to induce a great many persons in all parts of the country to submit to the self-denials necessary for the prosecution of daily observations. To us as Medical men, from the time of Hippocrates until now, variations in weather, season, and climatic conditions have been subjects of great interest, whether regarded in their relation to variation in amount and character of sickness and mortality, the outbreaks of epidemics, and so on, or as having a practical bearing upon the treatment of disease. Popular notions of the influence of these conditions are often far from correct, but the labours of observers, both in this country and abroad, are tending now to put them into a more precise and accurate form. The publications issuing from the General Register-office, for example, have effected very much in this direction, especially as showing the influence of extremes of heat and cold upon public mortality, while their operation in respect of sickness has been investigated more or less fully and precisely by Guy, Caspar, Haviland, and more recently by Ballard. The study of meteorology, then, is becoming more important to Medical men, inasmuch as there are indications that important truths in the etiology of disease are to be elicited from it. The power of forecasting grand atmospheric disturbances of a character to endanger life and property has already resulted from the observations of modern meteorologists. Is it too much to predict that ere long it may become possible to make similar forecasts of outbreaks of disease, with such an amount of accuracy as shall impart to them general Professional confidence, if not absolutely, yet contingently upon the occurrence of definite meteorological conditions? We believe that researches carried on for a long series of years upon the method adopted by the last observer we have mentioned are well calculated to compass this end.

Such being our views upon the value of the study of meteorology to Medical men, we must say that we have met with no book better adapted to promote the diffusion of sound meteorological information than that which is the subject of this review. Persons on the point of commencing meteorological observations, are often at a loss for direction upon a number of points of practical importance, such as the selection of instruments, the mode of fixing them, the correction of their observations, and so forth. All that they can require to know will be found in this little book. It is a handy book in every sense, and the name of Mr. Buchan upon the title-page is quite enough to convince those who consult it that it is a trustworthy guide.

Light: its Influence on Life and Health. By Forbes Winslow, M.D., D.C.L. Oxon (Hon.), etc., etc. London: Longmans and Co. 1867. Pp. 301.

Whenever we take up a book by Dr. Forbes Winslow, we may be certain of two things: one is that it will be readable—we mean pleasantly readable; the other that the subject will be illustrated amply out of the literary stores of the author's brain. It is very desirable that we should have amongst us a few writers of the class of Dr. Winslow, if only to show us that a scientific book, to be a good one, need not be dull and repulsive. Now this is just such a book as one would select for Professional reading on a hot summer's day when one would be disposed to loathe anything heavier—the sort of book to sprawl on the beach with.

There is nothing original, nothing new in the book, but the author does not profess to have created a new light. What he tells us is pretty much what every Medical man knows—"what oft was thought, but ne'er so well expressed." Still we say—read the book.

We can only find one little bone to pick with Dr. Winslow—a very little one. We object to the spelling of the word "*sanatory.*" We hold that this adjective is inapplicable to the subject of the volume; yet it appears in the heading of every page—"*On the Sanatory and Physiological Influence of Light.*" "*Sanatory*" is derived from *sanare*, to heal, and would be a word quite appropriate if the subject under discussion were the curative operation of light in disease. But the subject is light in its influence upon health, and we humbly submit that the word in this sense should be spelt "*sanitary,*" deriving the adjective from *sanitas*, health. We should be sorry to see the authority of Dr. Winslow quoted in support of an orthographical error.

We think this book is likely to be read, and profitably too, outside the circle of the Profession.

On the Management of Labour in Contracted Pelvis: an Inaugural Thesis, for which a first prize was awarded by the Minister of Public Instruction of France. By William H. Jones, Doctor of the Faculty of Medicine of Paris, M.R.C.S.E. Translated from the French. London: Hardwicke. 1867. Pp. 59.

Dr. Jones offers us in this thesis his contribution towards the solution of one of the most difficult and painful questions which can arise in the practice of Midwifery. It is based upon fifty-one cases of deformed pelvis observed by him at the Hospital of La Clinique d'Accouchements in Paris. We have no doubt that the experience of the author will obtain for his book a favourable reception at the hands of British Practitioners, and that the facts by which his conclusions are supported will be carefully considered by them. They are as follows:—

"1. When there is only slight contraction of the pelvic brim and the presentation is favourable, Nature is often sufficient in herself to terminate the accouchement. When the measurement approaches to three and a half inches, spontaneous accouchement at full term would be long and painful even if it could take place. In order to save the child's life

and preserve the maternal parts from lesions, the accoucheur ought not to wait more than an hour or two after the complete dilatation of the os uteri, especially if the labour has lasted from twenty to twenty-four hours. In that case the forceps should be used. If the labour be not much prolonged, the prognosis is good for the mother, serious for the child.

"2. When the diameter of the pelvis measures between three and a half and three inches, the life of the child at full term is in great danger. After waiting long enough to see whether by a fortunate chance the fœtus be so small that natural contractions suffice to expel it, the forceps ought to be used. If, after one or two attempts, this instrument is found to be ineffective, and especially if the measurement approaches to three inches, symptoms of danger menacing the mother or child should not be waited for. In this case, it is better not to reckon upon the birth of a living child, but to direct one's whole attention to the mother. With this view, version should be performed, and if it be insufficient, embryotomy must terminate the accouchement. Turning may be had recourse to at once in certain cases of oblique oval pelvis, but the diagnosis of this variety is very difficult to make on the living subject. If the labour be not too prolonged, the diagnosis (prognosis?) is good for the mother, but very bad for the child.

"3. When the diameter of the pelvis measures between three and two and a half inches, spontaneous accouchement at full term is impossible, unless the fœtus be macerated or exceptionally small. The forceps may be tried, but it is better, in the interest of the mother, to perform version. This operation can rarely terminate the accouchement without embryotomy, especially if the measurement approaches to two and a half inches. The prognosis is good for the mother if assistance is given at an early period of the labour. The birth of a live child cannot be hoped for.

"4. When the diameter of the pelvis measures under two and a half inches, the mutilation of the mature fœtus is indispensable if the accouchement is to be terminated through the natural passage. In this case, embryotomy must be performed. This operation can sometimes be aided by version. The prognosis is serious for the mother, and so much the more serious as the measurement approaches to two inches. Under this figure, the accouchement at full term, even with the mutilation of the fœtus, is very dangerous or impossible. Here the Cæsarian operation is indicated. By this means, the prognosis becomes excessively bad for the mother, but good for the infant."—P. 43.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

THE INTERNATIONAL MEDICAL CONGRESS OF PARIS.

The International Congress having been closed on August 28, we think it advisable to give at once an account of the three last meetings (August 26, 27, and 28), and, in our next letter, we will briefly analyse the interesting papers read on August 22 and 24, as well as those which, from want of space, have been left out in our narration of the stormy discussion on syphilis. The unusual extent of the labours of the present Congress renders it, in fact, almost impossible to give within a reasonable space a chronological description of its proceedings.

On Tuesday, August 26, a series of papers, unconnected with the official programme, were communicated to the assembly.

Dr. Desprez, of St. Quentin, read a paper on the rational treatment of cholera. He stated that the Physician ought to endeavour—(1st) to suppress the extreme irritability of the stomach, (2nd) to excite the functions of the skin, (3rd) to introduce into the blood such substances as are best calculated to restore its fluidity. All these indications he considers satisfactorily realised by the following prescription:—℞ Chloroform 1 gramme;(a) alcohol 8 grammes; spirits of Mindererus 10 grammes; syrup of hydrochlorate of morphia 40 grammes; water 110 grammes. The author attempted to explain rationally the useful effects of this mode of treatment, and gave the history of *two cases* in favour of his views. Surely we shall not be blamed for expressing the desire that a larger number of experiments should be tried on this all-important point.

(a) The gramme is equal to 15 grains.

Dr. Kasnaski, a Polish Physician, endeavoured to prove that prussic acid is the specific medicine of cholera. Under this system (coupled with occasional bleeding) the mortality does not exceed 12 per cent.

Dr. Frêmaux, of Paris, a venerable old gentleman, read, with a feeble and trembling voice, a long paper, the conclusion of which was that the terror inspired by cholera is the real cause of the extraordinary mortality which it produces. Little attention was paid by the assembly to this singular paradox.

Dr. Garrigou-Desarrives exhibited a parabolic otoscope for the inspection of the membrana tympani, and explained the principal properties of this very ingenious instrument, which is, with respect to diseases of the ear, that which the ophthalmoscope is to diseases of the eye, and the laryngoscope to diseases of the vocal cords.

Dr. Wreden, of St. Petersburg, gave an account of a new operation for the cure of deafness, which can only be performed with the assistance of the parabolic otoscope. He calls this operation sphyrotomy; it consists in the resection of the handle of the malleus, and is adapted to all cases in which Surgeons are accustomed to perforate the tympanum.

Dr. Morera read an interesting paper on the mechanism of deglutition, which, in his opinion, has been erroneously described by modern physiologists. The intervention of the laryngoscope being indispensable to demonstrate and explain the author's views, we are obliged to pass them over without any further description.

Professor Baccelli, of Rome, gave an account of his curative treatment of empyema. He exclusively gives this name to the state in which the pleura is transformed into a purulent cyst, in consequence of chronic inflammation. In such cases the penetration of air into the pleural cavity is totally devoid of inconvenience. He therefore taps the chest with a large trocar, and freely injects a strong solution of lunar caustic (30 grammes in 500 grammes of camomile water). Nineteen cases, in which the patients thoroughly recovered, attest the efficiency of this very radical and energetic mode of treatment.

Dr. Mazzoni, of Rome, exhibited a remarkable collection of urethral calculi, some of them of enormous size, and endeavoured to prove that urinary concretions always moulded themselves upon the adjoining parts, and adopted their shape. He declared that neither lithotomy nor lithotrity was required to extract those stones from the urethra, but the operation could be easily performed with a blunt hook, or the female branch of the lithotribe.

Dr. Mattei, of Paris, read a paper on uterine disorders during pregnancy. In his opinion, all the sympathetic phenomena of the pregnant state are due to uterine congestion and the subsequent pressure of the uterus on the neighbouring organs; and the administration of iodide of potassium, which, by contracting these vessels, diminishes the congestion, is in such cases the only rational mode of treatment.

Dr. Kristeller, of Berlin, described a new system of obstetrical manœuvres, in which he substitutes for the forceps, and all other Medical or Surgical methods of expelling the fœtus, a regular and systematic pressure on the uterus during labour. He gives this system the name of *fœtal expression* (*expressio fœtus*). It consists in seizing the gravid uterus with both hands, placing it in the proper direction, and pressing it downwards by degrees. After a few seconds the patient is allowed two or three minutes' rest; then the manipulation is renewed. If twenty or thirty *expressions* have produced no result, the system must be abandoned; if, on the contrary, it appears to assist the progress of the fœtus, forty applications or more may be performed without any danger. Dr. Kristeller supports his method by a formidable array of figures, and advises all obstetric Practitioners to give it as soon as possible a fair trial.

After some critical remarks from Dr. Mattei, and an able reply by Dr. Kristeiler,

Dr. Lazarêwich, Director of the Obstetrical Hospital of Kharkoff, exhibited a series of new and highly ingenious obstetrical instruments, which, of course, we shall not attempt to describe in this place.

Dr. Avrard, of La Rochelle, read a short note on intra-uterine injections, and exhibited an instrument of his invention, which, he says, obviates all the dangers of this operation.

On Wednesday, August 28,

Professor Bouillaud rose to say that the Congress before separating ought to make provision for its next meeting; it

ought, in other words, to name the year in which a second International Congress should take place, and fix upon the country which should be honoured by its presence. The choice of the city in which the assembly would have to meet must of course be left to the national choice.

After an animated discusion on this ticklish point, the year 1869 was selected for the next Congress, and Italy was assigned by a large majority as the place of meeting.

Professor Palasciano rose to return thanks in the name of his countrymen. He could promise, he said, a warm and cordial reception to the Medical brethren who would favour Italy with a visit on that occasion; but that to decide upon the particular spot in which the Congress should meet was at present impossible. Who knows, he exclaimed, what the progress of events may achieve within the next two years? Perhaps, gentlemen, we shall be able to receive you at Rome. (Loud and prolonged applause.)

The discussion was then opened on the Acclimatisation of European Races in Warm Countries.

Dr. Simonat, a well-known French anthropologist, stated that, in order to judge this question from a scientific point of view, all intermixture of races must be set aside. To prove the possibility of settling Europeans in any given climate, the blood must be kept pure; otherwise the argument drawn from experience would not be conclusive.

All countries placed between 30° of North and 30° of South latitude are comprehended under the common denomination of warm countries. But a vast difference exists between the various regions which fill this immense zone. In some parts, the surface of the ground is covered by extensive marshes, the emanations of which prove rapidly fatal to Europeans. In other countries, where no marshes exist, it is certain that the races of Europe can establish themselves and propagate their stock, by adhering to certain well-known hygienic rules, by guarding against the sudden vicissitudes of heat and cold, dry and damp weather; by observing great prudence in the article of diet, and avoiding all strong liquors; by avoiding venereal excess, and strengthening the functions of the skin by a regular course of cold bathing. Under these conditions the possibility of implanting the races of Europe in a warm climate has been proved by the Spanish and Portuguese in South America; but the question remains doubtful in some particular cases—such as that of French settlements in New Caledonia and Otaheite, etc. In short, Dr. Simonat concludes—1. That in marshy countries the races of Europe cannot subsist under a warm climate. 2. That where no marshes exist, the heat of the climate is no obstacle to their acclimatisation.

Dr. Lombard, of Geneva, read a very interesting paper on the laws of mortality in Europe as connected with atmospheric influences. The conclusions of this paper, which was illustrated by numerous maps and charts, are the following:—

Cold is the great cause of mortality in Europe; heat is in general favourable to the preservation of health. Young children and old people often die, however, from the effects of heat. Setting aside the influence of temperature, the malaria of marshes and the privations of poverty are, in Europe, the great general causes of diseases. Dr. Lombard terminated his interesting communication by exclaiming, "Death to malaria!" —a cry which was eagerly repeated by the whole Congress.

On Thursday, the 28th of August, the discussion was opened on the Influence of Diet in the Production of Disease.

Several interesting papers on this question were not read on account of the absence of their authors.

Dr. Sorbets read a paper, in which he expressed the idea that the development of the disease known under the name of *pellagra* (Fr. pellagre) was entirely due to the use of Indian corn, or rather to the presence of a particular fungus, the *verderame* (Fr. verdet), agreeably to the views of Balardini.

Dr. Bouchut opposed the opinions expressed by Dr. Sorbets, and said that the French and Italian view of *pellagra* might easily be reconciled. The Italians exclusively attribute the disease to the *verderame;* the French do not. But Dr. Bouchut has lately discovered a parasitical fungus which grows on wheat, and which is probably the cause of *pellagra* when no Indian corn has been eaten. He exhibited microscopical drawings of this little parasite.

Professor Demaria, of Turin, declared that it would be altogether unfair to consider the opinion which attributes *pellagra* to the use of Indian corn as the expression of Italian science; on the contrary, the inquiry set on foot by the Academy of Turin had proved that if the *verderame* does exert a certain influence on the production of this disease, a much larger share must be attributed to poverty, to malaria, to hereditary predisposition, and various other causes.

Dr. Curon, of Paris, read a paper on the influence of diet on the rearing of children, which he somewhat ostentatiously calls *puericulture*.

Dr. Hingston, of Montreal, stated that the difference of diet which exists between the French and English inhabitants of Canada has modified their respective constitutions, and rendered them subject to different diseases. Pulmonary complaints prevail among the English, affections of the digestive organs among the French, who are, however, a healthier, taller, and more powerful race than their neighbours—a result probably due to the use of animal food. The French Canadian eats two or three pounds of meat (generally pork) per diem; the Englishman gets food of a much inferior quality. Besides, the French Canadian, whose ancestors have inhabited the country for centuries, is now fully acclimatised, while the Englishman is not.

Two papers were read on the last question of the programme —on the Animal and Vegetable Parasites which are observed in Man—by Dr. Wreden, of St. Petersburg, and Dr. Favre, of Paris. The communication of this latter gentleman, in fact, was not applicable to the human species; it related to the production of disease in cattle by parasitical fungi.

Dr. Wreden described a disease of the ear occasioned by the development of the *aspergillus flavus* and *nigricans* on the membrana tympani.

The proceedings of the Congress being thus concluded, Professor Bouillaud declared that the Prize Commission had awarded the gold medal of the International Congress to Professor Bourgade, of Clermont-Ferrand, "On the General Accidents which produce Death after Surgical Operations." The successful candidate received his medal from the hands of the President amidst loud cheering.

Professor Bouillaud then rose to say that he wished to see an inscription engraved on the walls of the amphitheatre, stating that it was the seat of the first International Congress. He thanked all those who had tendered their assistance to its proceedings, and especially the Medical press. He hoped that it might be rewarded for its efforts by obtaining the liberty of the press—that liberty which would crown the political edifice, as the presidency of this Congress had crowned his own scientific life. (Loud and prolonged applause.)

LIVERPOOL.

Liverpool, September 9.

It will no doubt be remembered by many that the first fatal case of cholera in Liverpool, during the epidemic of last year, was that of a German emigrant. The subject of the attack was living, with thirty-nine others, in a single room, the entire cubic dimensions of which were 5493 feet. By the direction of the Health Committee, Dr. Trench has recently prepared a report relative to emigrant lodging-houses which are also public-houses or inns licensed for the sale of spirits. From this report it seems that there are at least eight such, where emigrants are habitually received as lodgers, at the same time that, owing to the protection afforded by a spirit licence, there is an entire freedom from the inspection to which common lodging houses are subject—an inspection, the systematic and thorough carrying out of which to all places open to it, under the admirable conduct of the Medical Officer of Health, has doubtless had very much to do with the present relatively healthy state of the town. So long ago as January, 1855, the evils liable to result, and indeed actually resulting, from this state of things were pointed out by Dr. Duncan, who, in a report in which he admitted the powerlessness of the Health Committee, in the existing state of the law, to subject such houses, let them be never so overcrowded, to any efficient control, pointed to the startling facts that in one of them alone ten emigrants had died in as many days in one year, while, in the year preceding, fifteen had died in the same house in a fortnight. Nor does any mere statement of figures, which shows that the space occupied by a given number of human beings would be barely sufficient to afford breathing room to one quarter as many, represent the case truly. The character of the emigrants, their physical and mental condition, and many other circumstances require to be considered in any attempt to estimate the possible amount of evil that may arise from this kind of overcrowding. They are often very dirty, their minds are depressed by the thought of their

forced expatriation, and their bodies but ill-nourished by the unfailing sour-krout, which is their staple diet. Each man, moreover, carries with him, whithersoever he goes, a bundle or two containing nearly all his worldly goods; and though the bundle does not itself consume air, it occupies a space which, in its absence, would be much better filled by the air which it displaces, and the amount of which must be deducted in any estimation of the breathing room afforded to each individual.

To remedy this state of things, Dr. Trench suggests to the justices the advisability of withholding licences from any inns known to be emigrant lodging-houses, and it is difficult to see what other means can be at present adopted. In view of the existence of epidemic cholera at other European ports with which Liverpool is in constant communication, the subject is one which demands the gravest attention; for these houses have undoubtedly served as centres of infection in the past, and, unless their character is changed, will serve as such again.

There is a fact just published by Dr. Trench, which strikingly shows the indifference with regard to matters relating to the public health, or perhaps the ignorance of the means by which it may be improved, in those who, above all others, should be anxious and well-informed on such points. There are in this town two disinfecting apparatus, prepared at the public expense, expressly for the use of those whose homes have been the seats of infectious disease. Yet, although a fortnight since there was a good deal of typhus prevalent, Dr. Trench found, on visiting the houses where deaths had occurred, that in no single instance had clothes or bedding been sent to be disinfected. So supine, indeed, does public feeling seem to be that, until it is made an indictable offence knowingly to retain articles that may serve as centres of disease, it is not probable that people will put themselves to the trouble of sending to the places where these apparatus are.

GENERAL CORRESPONDENCE.

THE PATHOLOGICAL PRACTICE OF SURGERY.

Letter from Mr. Frederick J. Gant.

[To the Editor of the Medical Times and Gazette.]

Sir,—The critical remarks with which Mr. Frederick Churchill has been so good as to favour my introductory communication in your impression of August 24 afford me the opportunity, with your permission, of offering him that further explanation which he invites from me respecting the nature and purpose of the Pathological Practice of Surgery.

Happily, the expression is as simple in its meaning as it is significant and comprehensive. It is intended to divert the course of future investigation in Surgical practice more entirely from any empirical tendency, as aimless and unsuccessful; and, while imparting this negative character to the practice of Surgery, to perpetually remind the Surgeon of that which is otherwise not asserted—the scientific basis and character of his art. Similarly we speak of "conservative" Surgery—a less important distinction, because a less general aspect of Surgery; not to mention many other subordinate departments only of special practice.

And, moreover, much remains to be done in the direction of pathological Surgery. I am indeed at a loss to imagine how Mr. Churchill's therapeutic knowledge could have supplied him with so satisfactory a retrospect as he appears to experience, had he for a moment contemplated even the Surgical or topical treatment of inflammation in connexion with its pathology, and that of all morbid growths in like manner. Excision and amputation are convenient substitutes only for remedial measures, which should be responsive to the whole vital history of morbid growths—their pathology—as distinguished from pathological anatomy, of which so much is known and applied in diagnosis. The whole of special Surgery pertaining to the different regions and organs of the body abounds with similar instances of empirical treatment.

"Pathological Operative Surgery," supplementing and not unfrequently superseding the guidance of *pure* anatomy, in the design and performance of Surgical operations, is a position which was, I think, admirably illustrated by Professor Hancock with reference to injuries and diseases of the foot—the anatomically restricted operations of amputation at the ankle-joint, and at the other articulations successively down the foot, failing to represent the numerous unnamed operations of partial removal which a due observance of the nature and extent of the pathological conditions cannot fail to suggest. This aspect of Operative Surgery is fully illustrated in my work on "The Principles of Surgery," and in the *Medical Times and Gazette*, 1865.

Respecting pathological matters of fact, I may just observe that Mr. Churchill will find certain points, which seem to have perplexed him, stated more fully, and a rectification of my *error scribendi*, in my communication last week; and that he has inadvertently misrepresented me in supposing that I would "run the risk of not setting a fracture for ten days or a fortnight after its occurrence." In some hundreds of cases I have observed this—"the final adjustment" is not absolutely necessary, and indeed useless, during that non-reparative period; a provision of nature, it would appear, of which I have gladly availed myself, when the pain, spasmodic muscular action, interstitial hæmorrhage and swelling, have been such as to forbid the manipulations requisite for an immediately complete coaptation, and which would have been partly aggravated by a fixed position of the limb. Unless I greatly err, a similar consideration of timeliness and moderation of the *nimia diligentia* is a valuable precept also in the treatment of other lesions; the power of reparation generally being inactive, for a while, after injury. I am, &c. Frederick J. Gant.

Connaught-square, September 7.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

Letter from Dr. Arthur Leared.

[To the Editor of the Medical Times and Gazette.]

Sir,—On my return from Paris, I found the late correspondence in reference to the Royal Hospital for Diseases of the Chest had been published in your columns. Any impartial person who has read the letters in question must be aware that many things stated by Dr. Dobell and his friends are capable of being viewed in a different light. But, as my colleagues are still out of town, I forbear making any reply for the present. I am, &c. Arthur Leared.

12, Old Burlington-street, St. James's, Sept. 11.

Letter from Dr. Horace Dobell.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following anonymous challenge came to me to-day by post:—

"Does Dr. Dobell venture to assert that he does not prescribe a secret remedy and tell his patients pancreatic emulsion must be made by a certain chemist, and will Dr. Dobell venture to assert that he does not receive an honorarium from said chemist?"

As I hear on all sides that these questions are going about among Medical men, will you allow me to give them a public answer in your columns?

It has already been stated again and again, and I now repeat (1st) that pancreatic emulsion is not a secret remedy; its composition has been announced privately and publicly over and over again, and it is open to all chemists; (2nd) that I have not now, and never have had, the slightest pecuniary interest—past, present, or future—in pancreatic preparations, and I have never received the value of one farthing, in any shape or form, from any chemist or other person, for any invention or preparation of any kind. I am, &c.

Horace Dobell, M.D.

84, Harley-street, September 9.

WAS LUTHER MAD?

Letter from Dr. W. Wood.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must ask you to do me the favour to correct an error into which Dr. Stone, in his letter in your journal of this day, has fallen in consequence of having not unnaturally adopted the newspaper reports of the evidence I gave in the great will case recently tried in the Probate Court. My opinion was not asked as to Luther's sanity, and I certainly did not say that he was "mad," or, indeed, volunteer any opinion on the subject. The fact is that, following a practice occasionally adopted by counsel, Mr. Serjeant Ballantine attempted to divert attention to an issue not before the court, and, of course with a view to weaken the Medical evidence as to the unsound state of mind of Mrs. Thwaytes, raised the

question of Luther's state of mind, and asked Dr. Williams if he considered that Luther was "mad." As I have already said, the learned counsel did not put any such question to me in his cross-examination, and I am unwilling that it should be stated on my authority that the great reformer was "mad" because he entertained some extraordinary religious impressions. To judge fairly of the mental condition of another at any time requires the most accurate information of the history of the case and of all the attending circumstances; and if this be a necessity of the present, by how much more is it a necessity as regards the remote past, especially in such a case as that of Luther, bearing in mind the state of society at the time, and the all-absorbing zeal with which he devoted his life to the promotion of the objects he had in view.

I am, &c.

W. Wood, M.D.,
Physician to St. Luke's Hospital.

99, Harley-street, September 7, 1867.

CLINICAL INSTRUCTION IN ENGLAND AND ON THE CONTINENT.

[To the Editor of the Medical Times and Gazette.]

Sir,—The near approach of another Session reminds one of the many important considerations which await the attention of the Medical Teachers' Association. Never does our system of Medical education appear to less advantage than during the autumn months, when every journal is teeming with advertisements setting forth the great and manifold advantages offered to students entering at each individual institution. Surely the metropolis cannot be so rich in men of first-rate excellence in every department of Medical knowledge, who, in addition to the duties of an active Professional career, can afford to devote to abstract or applied science that energy and time which will alone enable a man to keep up with the advance of scientific discovery. There are doubtless many and great advantages in our system of small schools, and notably in the greater individuality of the instruction, and the closer personal connexion existing between the teacher and the taught, than is perhaps possible in the great schools of the Continent. But are there not also great disadvantages? A student is now confined to the observation of the very limited number of cases coming under the care of a few Physicians and Surgeons, and has seldom an opportunity of comparing the results of the treatment advocated by his teachers with those of other men: the consequence being that he probably goes into practice with somewhat bigoted views of the value of a certain routine of treatment with which he happens to be familiar. This great defect in our metropolitan system must have been frequently brought home to the minds of those who have studied in any of the great schools of Germany or France. Why should the powers of clinical instruction of a Jenner or a Wilks, the Surgical experience of a Fergusson or a Paget, be limited solely to the comparatively small number of students belonging to the schools to which these gentlemen are attached? And yet the high fee required for Hospital attendance practically excludes a man from all but his own *alma mater*. Cannot the Association adopt some remedy for this evil? Would it not be possible to establish a system similar to that of a clearing-house, by which a moderate fee paid into a common purse might be distributed in proportionate shares amongst the various Hospitals? No one would be the loser by such an arrangement, since every student would be obliged to enter at one school before he could obtain a free ticket to the others. It would moreover be desirable to limit the application of such a system to men of three or four years' standing, or even to those who have obtained a diploma—a restriction which would tend to prevent inconvenient crowding in the attendance upon popular teachers, and great waste of time among the younger students, who can always find sufficient materials for observation in the most limited of our London Hospitals.

If the Association would direct its attention to this subject, and endeavour to carry out some plan which would tend to lessen the evils of the present system, it would confer a lasting benefit upon the Profession at large.

I am, &c. M. S.

Death from Chlorodyne.—At Harleston, Norfolk, a women died from the effects of an over-dose of chlorodyne unintentionally administered.

OBITUARY.

JOHN PROPERT, ESQ., M.R.C.S.

The exigencies of our "Students' Number" made any notice of the above well-known and highly respected Practitioner impossible last week, but we cannot allow another number of the journal to be issued without some slight tribute to his virtues and excellences. The news of his death, though at the ripe old age of 74, will have caused deep regret to numbers well acquainted with his benevolent face, his powerfully built figure, his invariably closely buttoned-up coat, and perennial flower; and to thousands more who only knew him by his works of philanthropy and benevolence. It is, indeed, these labours which especially distinguished him, and form his chief title to notice; and of these the most remarkable and greatest is the Royal Medical Benevolent College, of which he was founder and treasurer, which was his chief crown of honour and his delight while living, and now forms his best and a most noble monument.

Mr. Propert was the only son of Mr. Thomas Propert, of Bluenpistill, in the county of Cardigan, and was born on July 19, 1793. His early education was obtained at Cardigan Grammar School, on leaving which he joined one of the county militia regiments as ensign. The insufficiency of his private means, however, making it necessary for him to seek some more lucrative career, he became the pupil of Mr. Noot, an Apothecary of Cardigan. By the pecuniary help of a relative, he afterwards came up to London, and on October 30, 1811, entered as a perpetual pupil under Abernethy. Six months later, at the age of 18, he passed for service as an Assistant-Surgeon in the Navy. Circumstances led him, however, to give up this career, and returning to town he completed his professional studies, and in 1814 took his diploma as Member of the Royal College of Surgeons. He then, though we believe almost penniless, set himself to make a practice in London, and, beginning very close to the very street and house in which he died, quickly succeeded in gaining a position of stability and competence. Beginning without any special advantages of education, of friends or connexions, and with what most would perhaps consider great disadvantages of fortune, he by good common sense, sterling rectitude and goodness of heart, and untiring industry, won his way to fortune and position. He had the honour of serving as High Sheriff of his native county, and was a Magistrate and a Deputy-Lieutenant, and he was ever fond of, not boasting, but thankfully relating for the encouragement of others, how he, "the poor Welsh Apothecary," as he delighted to call himself, came to London "without a penny in his pocket," and conquered fortune. This, however, as we have said, was not his chief claim to distinction. *Vixerunt fortes ante Agamemnonem.* Many others have been as successful against as great discouragements. But he never forgot the difficulties and dangers in the path of the struggling Medical Practitioner, and his great desire was to establish some means of help for those who faint and fail in the battle.

His success in obtaining practice was peculiarly rapid. In fact, at the end of the first two years of his London career he found himself in lucrative business in the best part of town. But whilst there have been hundreds of successful General Practitioners, our Profession, in these days, has only known one founder of a Medical educational and benevolent charity which is probably destined to vie with the great foundations of the fifteenth and sixteenth centuries. It required no common qualities of heart and head to carry such a design to a fortunate conclusion. In this journal we have not hesitated to criticise from time to time what we have considered errors in the management of the College and its funds. But we have never allowed such errors to detract one iota from our recognition of the undoubted debt of gratitude which the Medical Profession owes Mr. Propert. The energy which had raised himself to a position of wealth and honour was thrown ungrudgingly into the service of the unfortunate. His West-end practice brought him closely into relation with the rich and influential; instead of employing his opportunities for the advancement of his own interests or those of his family, he lost none of obtaining assistance to carry out the great object he had at heart. The good he did brought its reward. He lived to see the College opened by the husband and son of the Queen, and to count among its patrons and supporters a large number of the highest and best in the land. And yet a higher reward was reserved for him. He lived to see the institution for

which he had laboured in full and successful work; to know that many of his less fortunate brethren whose strength and resources had been exhausted by the battle of life were brought safely under its shelter; and to be followed, as he trod the downhill of life, by the blessings and prayers of the widow and the orphan.

Mr. Propert died of cerebral apoplexy on Monday, September 9, at the age of 74. His seizure took place on the previous Saturday. He was attended by his friends Drs. Sibson, Black, and Mr. Peter Hood, but unconsciousness rapidly supervened, and he never rallied. Those of our readers who may wish a memento of him will find an excellent portrait in Barker and Edwards's photographs of eminent Medical men.

DEATH OF DR. RAYER.

(*From our Paris Correspondent.*)

The year 1867 has proved singularly fatal to the Medical and Surgical celebrities of this country. After Jobert, Follin; after Follin, Trousseau; after Trousseau, Velpeau, have been successively snatched away from us. And now the grave has closed on a man whose name, although in a rather different line, has stood quite as prominently forward among the scientific luminaries of France.

Rayer was born in 1793, and went through his Medical studies in those troubled times when Europe, leagued in arms against the ambition of Napoleon, was rapidly approaching the French capital. In 1814, being at the time a pupil of Dupuytren, he attended the wounded, during the short and sharp contest which took place under the walls of Paris. The companion of his patriotic exertions was the venerable Professor Cruveilhier, one of the few surviving representatives of that illustrious scientific generation which for a long time was the pride of France and the glory of the Medical Faculty of Paris.

Rayer took his degree in 1818, and would have become a candidate for academical honours had he not given mortal offence to the Government by marrying a Protestant lady. Under the ultra-Catholic *régime* of the Restoration, no man who had committed so grievous a sin could be allowed to hold an official position in the University. Rayer was, therefore, prohibited from entering the lists, and was obliged to turn his activity to account in another direction. At that time Hospital appointments were not open to competition; and the interest of his friends got him a nomination to the Hôpital St. Antoine, which he quitted a few years later for the Charité. His labours in the field of science from that period now belong to the history of Medicine. It will be here sufficient to say that he was one of the earliest French authors who propagated on the Continent the discoveries of Bright; that his treatise on diseases of the kidneys was classed at once among the standard works on that subject; and that his labours on comparative pathology, a branch of Medicine which, up to his time, had been almost entirely left to veterinarians, raised him to the first rank among scientific observers. His chief discovery in that line was the transmissibility of the glanders from the horse to the human subject, and the contagiousness of that disease—a view which had already been maintained by Elliotson, but which did not receive its full confirmation before the experiments and researches of Rayer. He also gave a complete description of that disease in man. His labours were rewarded in 1843 by a seat in the Academy of Sciences—the highest honour which a French *savant* can possibly attain. He had long before been nominated a member of the Academy of Medicine, which he entered at the early age of 30.

In 1849 Rayer became the founder and President of the Biological Society, a body which may be said to have laid the foundations of experimental Medicine by concentrating all the appliances of modern science—Physic, Chemistry, Physiology, Natural History, Veterinary Medicine—and bringing them to bear upon the history of disease. Its tendencies met with strenuous opposition for a long time, both in France and abroad; and if they are now universally triumphant the result is mainly due to the extraordinary talents of the leading members of that Society, most of whom were Rayer's pupils. It will, in fact, be long remembered to his praise that he knew how to appreciate and encourage talent, and that under his tuition were developed such men as Claude Bernard, Ch. Robin, Tardieu, Gubler, Vulpian, Charcot, and others, who now stand in the foremost ranks of French Medical science.

An enterprise of a very different nature was also placed under the patronage of Rayer, whose connexions with the Imperial Court invested him in a certain measure with political influence. He was the President of the General Medical Association of France, a body which has devoted its energies to the defence of the interests of the Profession and the assistance of the unsuccessful members of the Medical family. To promote a series of changes in the legislation of the country, in favour of the Physician's legitimate rights; to apply the existing laws to the protection of Medical men against the encroachments of local authorities; to prosecute all unqualified Practitioners; to establish, as far as possible, a code of honour among Medical men; to provide them, at the age of 60, with a retiring pension; and to assist their widows and children in cases of need—such were the principal objects of this Association, which has already rendered many important services, and will no doubt extend its influence still further in future.

A bitter rivalry arose on this occasion between Rayer and Velpeau. The latter, as president of a rival association which only comprises the Medical men of Paris, not those of all France, was unwilling, of course, to let himself be ousted out of his position by his great rival, and during the whole of his life he successfully resisted all the attempts at *annexation* made by the larger society. Setting all personal questions outside, it must be allowed that with respect to the general interests of the Medical body Rayer was right, and Velpeau was wrong. It will not do for one particular section of the Physicians of France to set up *imperium in imperio*, and to ignore contemptously all the concerns of provincial brethren. There is no chance of obtaining anything like justice for the Profession so long as the petty jealousies which divide it, in this country more than any other, are not weighed down by the feeling of common interests and common duties. Our cry must in future be "One and all!" Now that the two great adversaries have withdrawn from the scene, it may be hoped, as it is to be desired, that the two Associations will merge into one great body.

In 1861 little seemed to be left for Rayer to desire. He was a member of the French Institute and of the Academy of Medicine; Physician-in-Ordinary to the Emperor; Consulting Physician to the Paris Hospitals; President of the Board of Health; President of the Biological Society; and President of the Medical Association. In addition to this his practice was immense, and his wealth, which had been largely increased by successful speculations, was enormous; in fact, he is supposed to have left about £400,000 sterling. But the remembrance of the unsatisfied ambition of his early youth still rankled in his heart. The Professor's chair, which he had not been permitted to fill, was uppermost in his mind; and, in an evil hour, he lent the authority of his illustrious name to the despotic views of Government. One fine morning the Faculty was struck dumb with astonishment at finding Rayer appointed Professor of Comparative Pathology (a Chair created on purpose for him), and at the same time Dean of the School of Medicine, with unlimited powers; in fact, all the privileges formerly enjoyed by the Faculty were transferred at once to him.

That the Professors of our Medical School had made a very bad use of the almost unlimited authority with which they were invested cannot for a moment be denied. But the intrusion of absolute power into the sanctuary of science, even if useful in one particular case, would certainly have been followed up by a series of most offensive measures, and on this occasion both the Faculty and the students evinced a proper spirit. Such was the unpopularity of the new Dean that after a fruitless struggle, which lasted nearly two years, he was obliged to resign. The dignity of Grand Officer of the Legion of Honour, which was tendered to him as the reward of his services, was no compensation for the trouble and vexation of spirit which he underwent on this unfortunate occasion. He left behind him, however, one permanent trace of his passage, and a most beneficial one. We allude to the creation of a chair of Histology, actually occupied by Professor Robin. Will it be believed that up to that time the microscope was not represented in our official system of teaching? Such was the opposition of our senators to everything new.

During the few remaining years of his life, Rayer devoted himself as assiduously as ever to the cultivation of science, in spite of his advanced age and rapidly increasing infirmities. On the 7th inst. he presided at the Biological Society; on the 9th he was found lying almost insensible in his bed (probably from cerebral hæmorrhage), and on the ensuing day he breathed his last.

The funeral of Rayer was in every respect worthy of a scientific prince, as the French say. The chief mourner was General the Count de Chabaud-Latour, one of his relatives. The pall was supported by Professor Chevreul (of the French Institute), Dr. Ricord, the Duke of FitzJames, and Dr. Michel Lévy. A body of troops, commanded by a lieutenant-colonel, was present to render the deceased the military honours due to his rank in the Legion. A deputation of the Faculty was in attendance. Speeches were delivered at the grave by Professor Payen, in the name of the Academy of Sciences; Dr. H. Roger, in the name of the Academy of Medicine; M. Bussy, in the name of the Board of Health; Dr. Latour, in the name of the General Medical Association; M. Husson, in the name of the Administration of the Paris Hospitals; Dr. Ball, in the name of the Biological Society; Dr. Michel Lévy, in the name of the Paris Section of the Medical Association; and Dr. Brun, in the name of *friendship*.

Dr. Rayer leaves an only daughter, who is married to the Marquis d'Escayrac de Lauture.

NEW INVENTIONS.

THE BLOWPIPE GAS CAUTERY.

A short time since we gave a description of the new form of cautery designed by Mr. Bruce to which the principle of the blowpipe was applied. This instrument is well adapted for effecting the objects for which it was originally intended—viz., the destruction of small nævi, vascular and other growths, lupoid or phagedænic ulcerations, and for the arrest of hæmorrhage from small vessels; it is not, however, sufficiently powerful to be employed with advantage in the greater operations of Surgery in which the actual cautery is required. We learn, however, that Mr. Bruce has, at the request of several of the leading Surgeons, attempted to extend the application of the principle, and has now succeeded in producing a very efficient and powerful cautery, adapted for all ordinary purposes, and especially for the division of the pedicle in ovariotomy. The chief alterations consist in an increase in the size of the entire instrument, in an improved method of working the blowpipe, and in the means by which the cup, which receives the flame, is attached to the burner. In the new instrument the cup is firmly fixed by strong supports to a perforated wooden handle, through which pass the burner and the blowpipe, thus enabling the operator to employ much greater force than was possible with the original form. A bellows-ball and regulator take the place of the mouth of the operator, who is thus relieved from the necessity of keeping up a constant supply of air to the blowpipe, whilst the force of the blast is greatly increased. The intensity of the heat may be regulated with the greatest facility, and may be made to vary almost instantaneously from a dull red to a most intense white heat. This, together with the readiness with which the apparatus may be prepared for use, and its portability, constitute the advantages possessed by the new form of cautery over the old red-hot irons. The instrument has been made by Mr. Baker, of Holborn.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen have passed their Examination in the Science and Practice of Medicine, and received certificates to practise:—

Robert William Jones, 297, High-street, Poplar; James Pymar Billing, 8, Apsley-place, Glasgow; Robert Anderson, St. George's Hospital; Joseph Simpson Ridley, Preston; Richard Locke Johnson, 61, Charrington-street, Oakley-square; Frederick Noon, Newton-le-Willows, Lancashire; Edward Moore Little, Shaw, Melksham, Wilts; Edeumbe Cornish, Tavistock, Devon; Hardwick Hubert Braye, Wellington square, Hastings; William George Kemp, Canterbury, Kent; Arthur Benjamin Jackson Eddowes, Loughborough; Henry Greenway Howse, Henrietta-street, Bath; Thomas Howells, Royal London Ophthalmic Hospital.

The following gentlemen have also passed their First Examination:—

Edward Forbes Gaitskell, Guy's Hospital; Richard Rowen Hogg, Guy's Hospital; Francis de Havilland Hall, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Vernon, B. J., F.R.C.S., has been appointed Curator to the Royal London Ophthalmic Hospital.

Willis, George, M.D., and J.P. for the Borough of Monmouth, has been appointed by the Lord Chancellor a Magistrate for the County of Monmouth.

Young, P. A., M.B., C.M., has been appointed Resident Surgeon to the County and City of Perth Infirmary.

BIRTHS.

Allan.—On September 1, at Templemore, Ireland, the wife of A. Allan, M.D., Assistant-Surgeon 17th Regiment, of a son.

Bradley.—On September 11, at 4, Belitha-villas West, Barnsbury-park, the wife of C. L. Bradley, F.R.C.S., of a daughter.

Butler.—On September 4, at Ormonde-house, Guildford, the wife of T. M. Butler, M.R.C.S.E., of a daughter.

Day.—On September 8, at Harlow, Essex, the wife of R. N. Day, M.R.C.S.E., of a son.

Earle.—On September 15, at Brentford, the wife of E. S. Earle, F.R.C.S., of a daughter.

Horton.—On September 6, the wife of H. J. Horton, L.R.C.P. Lond., of Wrentham, Suffolk, of a daughter.

Johnson.—On September 9, at The Chesnuts, New Wimbledon, the wife of Dr. E. Johnson, of a son.

Livingston.—On August 21, at Greenlaw-place, Paisley-road, Glasgow, the wife of J. Livingston, M.D., of a daughter.

Ormerod.—On September 8, at 14, Old Steyne, Brighton, the wife of E. L. Ormerod, M.D., of a son.

Peet.—On September 4, at Shanklin, Isle of Wight, the wife of J. Peet, M.D., Surgeon-Major (retired) H.M. Bombay Army, of a son.

Pritchard.—On August 26, at Green-street, near Sittingbourne, Kent, the wife of Dr. G. F. Pritchard, M.R.C.S., of a daughter.

Rogers.—On September 10, at Rainhill, the wife of Dr. Rogers, of a daughter.

Savery.—On September 9, the wife of C. Savery, M.R.C.S., of 27, Marina, St. Leonards-on-Sea, of a daughter.

Sequeira.—On September 6, at 34, Leman-street, Goodman's-fields, E., the wife of J. S. Sequeira, M.R.C.S., of a son.

Shuttleworth.—On September 5, at Kensal-green, the wife of R. Shuttleworth, M.R.C.S., of a son.

Stewart.—On September 15, at 12, Weymouth-street, Portland-place, the wife of W. E. Stewart, M.R.C.S.E., of a daughter.

Tate.—On September 14, at The Coppice, Nottingham, the wife of W. B. Tate, M.D., of a daughter.

Turner.—On September 2, at North Camp, Aldershot, the wife of Surgeon A. F. Turner, 43rd Light Infantry, of a son.

Wallich.—On September 6, at 11, Earl's-terrace, Kensington, the wife of Dr. Wallich, of a son.

MARRIAGES.

Burton—Inglis.—On September 5, at St. Paul's, Aberdeen, J. C. Burton, M.D., Deputy-Inspector-General of Hospitals, late of the Madras Medical Service, to Jane Maude, second daughter of the late J. Inglis, of Bath. No cards.

De la Garde—Gregory.—On September 7, at St. James's Church, Exeter, J. L. De la Garde, M.B., to Caroline, youngest daughter of T. Gregory, Captain R.N., Bath-road, Exeter.

Douglas—Cruttwell.—On September 12, at St. Mary's, Ware, G. C. Douglas, M.R.C.S., to Louisa Rebecca, youngest daughter of the late C. H. Cruttwell, Esq., of Hertford. No cards.

Fairbank—Nicholson.—On September 12, at St. Paul's, East Moulsey, T. Fairbank, M.D., of Windsor, to Mary Louisa, daughter of the late J. Nicholson, Esq., of London, and stepdaughter of D. Judson, Esq., of Coleman-street, E.C., and Wolsey House, East Moulsey, Surrey.

Fox—Baker.—On September 7, at Christ Church, Highbury, W. Tilbury Fox, M.D. Lond., of 43, Sackville-street, W., to Sophia Campbell, youngest daughter of Commander F. Baker, R.N., of Highbury-grange, late of Sydney, New South Wales.

Gunn—Drummond.—On September 4, at Christ Church, Rathgar, Dublin, F. L. G. Gunn, Staff-Surgeon, to Liza Penn, only daughter of D. Drummond, Esq., J.P., Dumfilian.

Hill—Faber.—On September 3, at Holy Trinity Church, Stockton-on-Tees, G. Hill, M.D., the Elms, Hooton, Cheshire, to Emma Grey, fifth daughter of the late T. H. Faber, Esq., Stockton-on-Tees.

Molloy—Baird.—On April 30, at Hyde Park, W. T. Molloy, Esq., J.P., L.K. & Q.C.P. Ireland, Rangeview, Balmoral, Victoria, Australia, to Lizzie, daughter of John Baird, Esq., Strabane, Ireland.

Pearce—Thomas.—On September 4, at Stockwell Congregational Church, J. C. Pearce, M.R.C.S., of Trewyn, Dulwich, to Elinor Lois, second daughter of Dr D Thomas, of Loughborough-park.

Prichard—Baker.—On September 5, at Priory Church, Malvern, W. G. Prichard, M.D., Inspector General of Hospitals, late H.M. Indian Service, Madras, to Emily Dorothea, fourth daughter of the late R. Baker, Esq., West Hay, Wrington, Somerset.

Ricketts—Penketh.—On September 5, at Christ Church, Eccleston, by the Rev. R. P. Crockett, James Ricketts, Esq., L.R.C.P., etc., of St. Helens, to Grace Lingsdale, only daughter of John Penketh, Esq., of Lime-grove, Eccleston.

Robertson—Cunyngham.—On September 5, at St. Jude's, Southsea, G. Robertson, M.D., Royal Marine Artillery, to Augusta Zuhlebe Thurton, daughter of F. T. Cunyngham, Esq., Stanley-hall, Gloucestershire.

DEATHS.

Alderson, J., M.D., M.R.C.S., F.S.A., of Long Rennington, Lincolnshire, at Aslackby Vicarage, Folkingham, aged 32.

Carr, W. T., Surgeon R.N., at the Royal Alexandria Hotel, Liverpool, on September 8.

Kirby, B., M.D., at Avon-bridge Cottage, Barford, Warwickshire, on September 4, aged 50.

Kitching, C., L.S.A., at Adelaide, South Australia, on July 17, aged 65.

LADD, T. E., M.D., at 9, Holland-street, Brixton-road, on September 9, aged 40.

PROPERT, J., M.R.C.S.E., Deputy-Lieutenant for Cardiganshire, at 6, New Cavendish-street, on September 8, aged 74.

ROBSON, W., late of Broughton-in-Furness, at Greenheys, Manchester, on August 27, aged 71.

SCHROEDER, E. H. S., Surgeon-Major, M.D., F.R.C.S.E., at Halstead-hill-Cheshunt, Herts, on September 6, aged 40.

VACANCIES.

BIRMINGHAM LYING-IN HOSPITAL.—Resident Surgeon.

CARMARTHENSHIRE, ETC., JOINT LUNATIC ASYLUM.—Medical Superintendent.

DORSET COUNTY HOSPITAL.—House-Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Two Physicians.

TORBAY INFIRMARY, TORQUAY.—Dispenser and Assistant to the House-Surgeon.

WESTERN GENERAL DISPENSARY, MARYLEBONE-ROAD. — Physician-in-Ordinary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Cheltenham Union.—Mr. Alfred Fleischmann has resigned the Workhouse; salary £45 per annum.

Hexham Union.—Mr. Wm. C. Arnison has resigned the Sixth District; area 48,000; population 6491; salary £25 per annum.

Ludlow Union.—Mr. David Davies has resigned the Leintwardine District; area 15,802; population 2556; salary £60 per annum.

Ormskirk Union.—Mr. Thomas Dandy has resigned the Fourth District; area 12,660; population 7699; salary £31 per annum.

Thornbury Union.—Mr. Edward Long has resigned the Thornbury District; area 21,617; population 6080; salary £66 per annum. Also the Workhouse; salary £34 per annum.

APPOINTMENTS.

Alcester Union.—John W. Leacroft, L.S.A., M.B. Marisch. Coll. Aber., to the Inkberrow District.

Bangor and Beaumaris Union.—Benjamin Jones, M.R.C.S.E., L.S.A., to the Bangor District.

Berkhampstead Union.—George F. Whateley, M.R.C.S.E., L.S.A., to the Berkhampstead District and the Workhouse.

Honiton Union.—Robert F. Mayne, L.R.C.P., M.R.C.S.E., M.D., to the Third B District.

Kingsbridge Union.—Francis D. Pearce, M.R.C.S.E., L.S.A., to the Eighth District.

New Forest Union.—William W. Saul, M.R.C.S.E., L.S.A., to the Second District and the Workhouse.

Reading Union.—Timothy L. Walford, M.R.C.S.E., L.S.A., to the St. Lawrence Workhouse.

Salisbury City.—William G. Williams, M.R.C.S.E., L.S.A., for the City and the Workhouse.

Westbury and Whorwellsdown Union.—Henry F. Parsons, M.R.C.S.E., L.S.A., to the Second Division of the Second District.

West Ham Union.—John B. Hamilton, L.R.C.P. Edin., M.R.C.S.E., to the Stratford First District. Thomas F. Clay, L.R.C.P. Edin., M.R.C.S.E., to the Stratford Second District. Charles T. Kelland, M.R.C.S.E., L.S.A., to the Barking-road and Canning-town District.

PRIZE QUESTION.—The Paris Société Protectrice de l'Enfance announces as the subject of its prize of 500 francs the following subject:—"Maternal Suckling considered in relation to the Mother, the Infant, and Society." Essays to be addressed to the Secretary of the Society, 17, Rue Béranger, before December 15 next.

DEATH OF DR. JACKSON.—Our contemporary, the *Pall-mall Gazette*, announces the death, in his 90th year, of Dr. Jackson, a distinguished Physician of New England, and one of the most eminent Professors in the Harvard University. Dr. Jackson is the author of various treatises on science, and in his student days was attached to St. Thomas's Hospital, and attended the lectures of Fordyce, Astley Cooper, and others.

THE GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At the meeting of this Society, held on Friday, September 6, in the Hall of the Faculty of Physicians and Surgeons, St. Vincent-street, the following gentlemen were elected office-bearers for the present session:—*President:* Dr. Allen Thomson. *Vice-President:* Dr. Coats, Dr. W. T. Gairdner. *Council:* Dr. Yeaman, Mr. Robertson (Renfrew), Dr. Dewar, Dr. Tindal, Dr. G. H. B. Macleod, Dr. A. R. Simpson, Dr. F. H. Thomson, Dr. Richmond (Paisley). *Secretaries:* Dr. James Adams, Dr. Robert Perry. *Treasurer:* Dr. H. R. Howatt.

INTERESTING MANUSCRIPTS.—Mr. Charles Hawkins, a Member of the Council of the Royal College of Surgeons of England, has just presented to the library of that institution two volumes, in manuscript, of lectures on Surgery delivered in 1808-9 by the late Sir Benjamin Brodie; and also two volumes in manuscript, reported by Dr. Nicholl, of Sir Everard Home's lectures on Surgery delivered in 1810. Mr. Edward Cock (one of the Vice-Presidents of the College) has also presented to the library a very large and interesting collection of manuscripts bequeathed to him by the late Sir Astley Cooper. The library will reopen on Tuesday, October 1.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The following appointments were made at the adjourned general meeting on Friday, September 6:—*President:* Mr. Alfred Baker. *Vice-Presidents:* Dr. Bidwell, Albrighton; Mr. Shaw, Sutton Coldfield; Mr. John Clay, Birmingham; Mr. Arthur Oakes, Birmingham.

HEALTH OF BIRMINGHAM.—The following measures are taken by the sanitary authorities of the town for the promotion of the health of its inhabitants:—Inspectors of nuisances are appointed, whose duty it is to inquire into, and remove all nuisances of which they may become cognisant; to inspect all houses in which zymotic diseases are supposed to exist, and, if necessary, to insist upon the thorough cleansing of suspected places by lime-washing, etc. They make also periodical inspections of all suspicious courts and districts, and, when they find it requisite, take stringent steps for the immediate purification of them.

THE CHOLERA IN ITALY.—According to the last reports, the disease seems much abating. From the commencement of the epidemic to August 30, there have occurred in the province of Milan 5054 (2731 males, 2323 females) cases, with 1592 recoveries and 3018 deaths, 444 cases remaining under treatment. In the city of Milan, the total number of cases have amounted to 395, with 66 recoveries and 292 deaths, 36 remaining under treatment. In the city of Venice, the total of cases is 310, with 56 recoveries and 194 deaths, 75 remaining under treatment. In the city of Brescia the total of cases is 936, with 319 recoveries and 585 deaths. For some reason or other, the number of cases occurring in Piedmont has been concealed; but it is reported to have amounted to 12,000.—*Gaz. Med. Ital.* (*Lombardia*), Sept. 9.

CONTAGIOUS DISEASES ACT.—The application of this excellent Act to Aldershott has already been attended with the most beneficial results. In the early days of the camp it was no unfrequent circumstance during severe weather to find the dead body of an "unfortunate" lying on the common, while others in frightful stages of disease had to be removed to the union workhouse. A considerable number of soldiers were always in hospital, and some were permanently incapacitated for military duty. Although the Act has not been long applied, there is a marked diminution of disease. Scenes once common in the neighbourhood of the camp are becoming less frequent, and the evil which is common to all garrison towns is, at all events, less open and flagrant. The military correspondent of the *Times* states that on a comparison with former years the general health of the men now stationed in the camp may be considered as highly satisfactory, and adds that this fact is attributable to improved sanitary arrangements and the operation of the Contagious Diseases Prevention Act.

MEDICAL CHARITIES.—The friends of the undermentioned institutions will be glad to learn that the late Captain Edward William Harris, of her Majesty's Indian Navy, has directed that on the death of his wife a sum of £8000 shall be divided in equal shares to certain charitable institutions named by him, amongst which are the following Medical charities:—The Metropolitan Free Hospital; the Orthopædic Hospital, Oxford-street; the Ophthalmic Hospitals of St. George's, Southwark, and Gray's Inn-road; St. Mark's Hospital for Fistula; Hospital for the Paralysed and Epileptic; Hospital for Stone; the Hospitals for Small-pox and Fever at Islington; the Consumption Hospitals at Brompton and the Victoria-park; the Cancer and Lock Hospitals; and the Asylum for Idiots. James Andus, Esq., of Selby, Yorkshire, bequeaths £100 to the York Hospital. Miss Margaret Pope, of Staines, also bequeaths £300 to the Invalid Asylum at Stoke Newington; £200 to the Idiots' Asylum at Croydon. Mr. William Hansom, of New Windsor, bequeaths £1000 each to the Royal Windsor Dispensary and Infirmary. Mrs. Sarah Dorothy Woodhouse, of Upper Grosvenor-street, Grosvenor-square, bequeaths £100 each to a great number of charities, amongst which are the following Medical institutions:—The National Hospital for the Paralysed and Epileptic, British Home for Incurables, the Metropolitan Convalescent Institution, the Cripples' Home, Free Cancer Hospital (Brompton), Hospital for Sick Children, and the Great Northern Hospital, Islington.

CHOLERA is subsiding at Malta. The 14th Regiment, after losing nine men in eight days from cholera, was removed on Monday to Gozo. The 8th Regiment has been placed under tents at Floriana. One or two cases only of cholera, however, occur daily among the civil population. Foul bills of health continue to be issued.

THE CATTLE-PLAGUE has certainly broken out in Moravia, whence the transit of cattle is prohibited. It is said also to have broken out in Cheshire. The local inspectors report that the disease in Cheshire is cattle-plague, but Professor Brown, who was sent down by the Privy Council to investigate the matter, states that it is not cattle-plague. Who shall decide? Meanwhile, the fact that infected cattle are imported is beyond question. Mr. G. Wheeler, Secretary to the Home Cattle Defence Association, writes to the papers to say that, on Saturday last, the *Dolphin*, from Hamburg, landed 339 sheep at Brown's Wharf, Poplar, all of which were condemned to be slaughtered in consequence of a most virulent outbreak of small-pox. In the face of this fact the proposed removal of restrictions as to the removal of sheep is a very questionable measure.

FARADAY AND THE FRENCH INSTITUTE.—M. Dumas addressed the following letter to the President of the Academy of Sciences:—"Professor Tyndall has announced to me the death of Michael Faraday. On Sunday morning he terminated his noble life so peaceably that he seemed to have fallen asleep. Mr. Tyndall seems to wish that, in my quality of an old friend of the illustrious physicist, I should be the organ of communication of the family with the Academy. If it has already apprised you of the sorrow with which it is afflicted, you will please consider this letter as not written; but otherwise, in conformity with the wish that has been expressed, I am desirous that the Academy should be at once informed of the great loss it has sustained. The titles to regard of this incomparable *savant* are known to the entire world; but the ineffable character of the man, so good, so loyal, and so ingenuous, could only be appreciated by those who enjoyed his intimacy. It is now nearly fifty years since I met Faraday for the first time, and since then we have been friends. I have watched him during his glorious progressive ascent, and I observed his modesty, so natural and so simple, increase in the same proportion with the force of his genius and the splendour of his services. If his discoveries have immortalised him, and if he leaves the impression of one of the most fertile spirits of this century, he also leaves to the profit of the dignity of science the example of a pure life and a noble heart. It is not England alone that will mourn this great loss."

WE understand that a public sale of the Museum of Natural History belonging to the deceased Dr. Theodore G. Van Lidth de Jeude, formerly Professor of Zoology and of Anatomy at the University of Utrecht, will take place on Monday the 30th of this month, and the following days, at the library of Kemink and Son at Utrecht. Catalogues are forwarded gratuitously to all museums and societies of natural history, and may be had by private individuals on application.

THE LEARNED PROFESSIONS.—It is stated of the three great professions that in England the number of persons belonging to each is nearly the same—viz., 35,995 Medical, 35,483 clerical, and 34,970 legal.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN AUGUST, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition.(a)	Oxidisable Organic Matter.(b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	20·50	1·00	0·63	12·5	3·5	0·003
West Middlesex	20·00	0·65	0·52	13·0	4·0	0·004
Southwark & Vauxhall	18·70	0·00	0·51	12·0	4·0	0·004
Chelsea	19·87	1·03	0·62	13·0	4·0	0·003
Lambeth	20·20	0·75	0·69	12·0	3·5	0·004
Other Companies.						
Kent	28·33	0·35	0·14	16·5	7·5	0·004
New River	19·00	0·45	0·37	12·0	4·5	0·001
East London	16·83	0·49	0·40	11·0	4·5	0·006
Surface Wells.						
Aldgate Pump	44·77	2·00	0·13	28·5	9·5	0·008
Bishopsgate Pump	86·17	4·50	0·16	35·0	18·5	0·045

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 5; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter

YELLOW FEVER.—Yellow fever is committing terrible ravages in America, and especially in the Southern States, in Texas, and New Orleans, no less than forty-five deaths having occurred in the latter city in one day. Several well-known Federal officers have been carried off by it. In Galveston and Corpus Christi it is extremely destructive, the deaths in the last-named having reached 153 in a single week. It has broken out on board the ironclad *Mohaska*, and has attacked nearly all the crew. The worst instance, however, is that of the brig *Nellie*, which was boarded at sea, having been found drifting about perfectly helpless, the captain and all the crew being laid up with yellow fever. In New Orleans the disease is said to be more fatal than before the war. This is a remarkable fact, for it shows that even so formidable an epidemic is amenable to sanitary regulation, since it was through General Butler's strict hygienic *régime* that its progress was stayed during his tenure of New Orleans.

SHORT-SIGHTED CHILDREN.—A curious work has been published at Breslau lately by Dr. Hermann Cohn, giving the result of an examination of the eyes of 10,060 school children. The proportion of short-sighted children was 17·1 per cent., or 1730 among 10,060. No village children were found so defective until they had been some time at school—at least half a year. There were in proportion four times as many short-sighted children in the town (Breslau) as in the country, and short-sightedness increased generally with the demands made upon the children. Dr. Cohn attributes the evil in a great measure to the bad construction of school benches, which forces the children to read with their books close before their eyes, and with their heads held downwards. The obstinate adherence to the ancient Gothic character in printing and writing, to which Englishmen are generally inclined to attribute the prevailing near-sightedness of Germans, is not alluded to by Dr. Cohn.

STRONG DOSES IN RATTLESNAKE BITE.—Dr. Newman reports in the *Chicago Medical Journal* a case of rattlesnake bite in which he administered during six hours thirty grains of morphia, one gallon of brandy, and four ounces of aqua ammoniæ. The patient had been bitten three hours when the treatment was commenced, and was in great agony, enormously swollen, foaming at the mouth, and convulsed. The first dose consisted of five grains of morphia, followed in ten minutes by half a pint of brandy. Stramonium leaves were applied as a fomentation. These remedies were continued at short intervals, with the addition of aqua ammoniæ, until the patient became quiet and fell into a gentle sleep, which lasted for some hours. He fully recovered.—*Boston Medical Journal*, August 15.

ACCIDENT FROM CHLOROFORM.—Dr. Danzel, of Hamburg, relates that in November, 1866, he was engaged in removing a scirrhous breast under chloroform, and as soon as the tumour had been removed the patient was found to have ceased breathing, and her pulse had vanished. The windows were at once thrown open, and persevering efforts with artificial respiration were made in vain, the patient lying, in fact, exactly like a corpse. The rotatory electrical apparatus, which the author for some time past always has at hand when chloroform is administered, was now resorted to, one pole being applied to the region of the neck, and the other to the epigastrium. The first effects produced were contractions of the *levator scapulæ* and *birenter maxillæ*, and gradually all the respiratory muscles were called into new life, the effect on those present being as if a resurrection from the dead had been produced. The operation was completed, the patient breathing again, although still under the narcotic influence.—*Langenbeck's Archiv*, B. ix. H. i. P. 249.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

P. E. R.—The prize is not yet awarded.

Dr. H. C. Andrews' paper has been received.

W. P. W.—Consult your family Medical man, and follow his advice.

M.D.—"The Leamington Congress." Simpkin and Marshall. Price 3s. 6d.

Dutch Drops.—Write to the Secretary of the Court of Examiners, Apothecaries' Hall, Blackfriars.

A. T.—We think it would be in accordance with etiquette that the Medical Practitioners of the town should call on the new comer, unless, indeed, the new comer have introductions to them. The same rule holds good with regard to the other inh bitan

L. S.—Consult any work on the Peerage. There is a chapter on Precedence in Dod's work.

A Staff-Surgeon.—Mr. Charles Johnston, M.R.C.S., published, some years ago, an account of his travels in Abyssinia, in 2 vols. 8vo, where, perhaps, you will find what you require.

F.R.C.S. Eng., Exam.—The regulation is explicit; it states that, if in any one year one of the three retiring members of the Council be a President of the College, he does not go out of office until the succeeding year.

L.S.A., Birmingham.—Write at once to the Hall. If your son can be admitted to the examination, and should be successful, he could enter on his Hospital studies in October.

Dr. McBride.—You will find an account of the trial of the Apothecaries' Company *v.* Bentley reported by Carrington and Paine. It was for practising as an apothecary without the proper certificate. The declaration sought different penalties for attending different persons. It was tried before Chief Justice Abbott, and resulted in a verdict for the Company of £20.

DISCOLOURING OF THE SKIN DURING PREGNANCY.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly publish the enclosed case if you think it of sufficient interest? I was called last week to attend a Mrs. H., aged 42, with her sixth child. Upon my arrival I was struck with a peculiar discoloration of her face, hands, arms, and legs, being spotted like the skin of a leopard. I asked her if she had always that very strange appearance about her skin, to which she replied that during the last three months of her pregnancy with her last two children she had noticed it, and on its first appearance she was greatly alarmed, but that after she had been delivered about a month or six weeks the skin resumed its natural colour—in fact, if anything, became rather fairer than it was before its appearance. She has now been confined nearly a week, and her hands, face, etc., are certainly beginning to assume a pearly whiteness. Should any of your readers take an interest in such forms of disease of the skin, and think this case worthy their notice, I shall be happy to accompany them to my patient (by appointment), who has kindly offered to give every information respecting her case, which I consider a very interesting one.

I am, &c.
7, St. James's-road, Holloway, N. J. WHITEHEAD, M.D., L.S.A.

ERRATUM.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the Students' Number, in the article on Queen's College, Birmingham, the following mistakes occur. Will you kindly rectify them in your next number? The Professor of Medicine should be Professor David Nelson; of Descriptive and Surgical Anatomy, Professor Lloyd, M.R.C.S.; of Practical Anatomy and Demonstrations, Professor Lloyd, M.R.C.S., and Dr. James Hinds. I am, &c.
St. Mary's-square, Birmingham, Sept. 16. C. B. SUCKLING.

*** The article on the Queen's College, Birmingham, was in accordance with the information forwarded by the authorities of the College.—ED.

COMMUNICATIONS have been received from—
M. D.; Mr. TALLOCK; Mr. F. J. GANT; Dr. WOOD; Dr. DOBELL; Dr. CORFE; Mr. FOWLER; Mr. RUSSELL; Dr. REID; Dr. LEARED; Dr. POGGIO; P. E. R.; Dr. WILSON; Dr. YOUNG; Dr. BEATTY; Mr. CRAVEN; A RATEPAYER; A. T.; Dr. SUCKLING; Dr. NELSON; W. P. W.; Mr. HARRY LEACH: Dr. WHITEHEAD; DUTCH DROPS; Mr. LOVERIDGE; Mr. BALL; Mr. BRUCE; Dr. B. W. RICHARDSON; Mr. J. CHATTO; Dr. ROBERT BARNES; Dr. CUTHBERTSON; Dr. BALLARD; Mr. M. L. MITRA.

BOOKS RECEIVED—
Watts's Dictionary of Chemistry, Part 41—Dalton's Treatise on Human Physiology—Abbot's Report of the International Sanitary Conference, Boston, U.S.—The Western Journal of Medicine, July and August—Publications of the Massachusetts Medical Society, Vol. II., No. 1—Ashurst on Injuries of the Spine—Lowndes on the Maintenance of Health—Madras Quarterly Journal of Medical Science, Nos. 20, 21, 22—Ravenstein and Hulley's Handbook of Gymnastics and Athletics—Broadway, No. 2—Robertson's Care and Treatment of the Insane Poor—Report of Epidemic Cholera in the Army of the United States—Southern Journal of the Medical Sciences, August.

NEWSPAPERS RECEIVED—
Country Life—Gazette Hebdomadaire—Laboratory—Mouvement Médical—Medical Press and Circular—Yorkshire and Lincolnshire Advertiser—Jamaica Gleaner.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 14, 1867.

BIRTHS.

Births of Boys, 1044; Girls, 1014; Total, 2058.
Average of 10 corresponding weeks, 1857-66, 1826·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	651	611	1262
Average of the ten years 1857-66	585·2	551·0	1136·2
Average corrected to increased population ..	..	..	1250
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	3	..	5	..	2	2	37	2
North ..	618,210	4	6	15	6	8	13	63	2
Central	378,058	1	3	6	..	4	3	16	3
East ..	571,158	6	3	5	..	7	6	46	10
South ..	773,175	3	3	7	..	4	6	41	8
Total ..	2,803,989	17	15	38	6	25	30	203	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·769 in.
Mean temperature	60·1
Highest point of thermometer	73·2
Lowest point of thermometer	49·1
Mean dew-point temperature	53·3
General direction of wind	S.W.
Whole amount of rain in the week	1·18

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 14, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Sept. 14.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Sept. 14.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tens per Acre.
London (Metropolis)	3082372	39·5	2058	1421	1262	73·2	49·1	60·1	1·18	119
Bristol (City) .	165572	35·3	138	74	153	69·4	46·8	57·5	0·63	64
Birmingham (Boro')	343945	43·9	260	167	220	68·8	49·2	59·0	0·73	74
Liverpool (Borough)	492439	96·4	367	285	308	68·8	51·6	58·9	0·71	72
Manchester (City) .	362823	80·9	296†	205	†268	71·2	46·0	58·4	0·69	70
Salford (Borough) .	115013	22·2	122	58	80	70·5	44·6	58·1	0·92	93
Sheffield (Borough).	225199	9·9	189	119	135	67·5	46·4	56·8	1·26	127
Leeds (Borough) .	233428	10·8	136	118	162	73·0	42·5	58·8	0·57	58
Hull (Borough) .	106740	30·0	79	49	78	72·0	46·0	58·8	0·80	81
Newcstl-on-Tyne, do.	124960	23·4	83	66	101	66·0	51·0	58·4	1·12	113
Edinburgh (City) .	176081	39·8	117	85	63	65·7	50·0	57·1	0·30	30
Glasgow (City) .	440979	87·1	326	257	219	64·8	46·0	56·4	1·10	111
Dublin (City and some suburbs)	319210	32·8	168	‡157	156	67·5	42·8	57·1	0·43	43
Total of 13 large Towns . .	6187764	34·8	4339	3061	3105	73·2	42·5	58·1	0·80	81
					Week ending Sept. 7.	Week ending Sept. 7.				
Vienna (City) .	(1863) 560000	..	..	..	..	..	..	..	..	..

§

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·769 in. The barometrical reading decreased from 29·92 in. at the beginning of the week to 29·63 in. on Monday, September 9, increased to 29·83 in. on Wednesday, Septe mber 11, and decreased to 29·63 in. on Thursday, September 12.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 63·2°.

APPOINTMENTS FOR THE WEEK.

September 21. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

23. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

24. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

25. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

26. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

27. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATION.

London Hospital.—The following operation will be performed on Saturday (this day) at 2 o'clock:—
By Mr. Maunder—Ligature of Common Iliac Artery.

SILVER MEDAL, PARIS EXHIBITION, 1867.

PANCREATIC EMULSION.

PALATABLE AND MORE PERMANENT IN ITS EFFECTS THAN COD-LIVER OIL.

Originated by Dr. DOBELL.

Reports of "Cases treated with Pancreatic Emulsion," in "The Lancet," Nov. 11 and 18, 1865, and Nov. 17, 1866.

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PRIZE MEDAL—EXHIBITION 1862.

A REAL IMPROVEMENT ("Lancet") on the ordinary kinds of Liebig's Food.

This Food contains an extra proportion of the Wheat Phosphates, so essential to the healthy growth of Infants and the restoration of Invalids. Tins, 1s., 2s., 5s., and 10s.

PANCREATINE IN POWDER

Possesses all the properties of the pancreas of the pig. A dose taken directly after food digests the fat eaten at the meal. Bottles, 2s., 3s. 6d., and 6s. 6d.

SAVORY & MOORE, 143, NEW BOND-STREET.

DR. VICTOR BAUD'S ORGANIC MEDICINES.

DR. V. BAUD, Graduate and Member of the Medical College of Paris, Chief Physician Extraordinary for Epidemics in Paris, late M.D. of the Civil Hospitals of Algiers, has just introduced in England his ORGANIC MEDICINES. They consist of three Preparations:—

THE BAUDEINE, an efficient and prompt Remedy for Cholera, Yellow Fever, Diarrhœa, Dysentery, and excessive action of the Bowels. (A Gold Medal was awarded by the French Government to Dr. V. Baud for this valuable Preparation.) Price—small, 1s. 1½d.; medium, 4s. 6d.; large size, 11s per bottle.

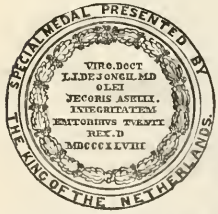
The Treatment for Cholera, Yellow Fever, Dysentery, and Diarrhœa in all their stages accompanies each bottle, and bears the signature of Dr. V. Baud.

THE DIASTATIZED IRON, for Strengthening the System. Price 2s. 9d. per Bottle.

THE DIASTATIZED IODINE, for Purifying the Blood. Price 2s. 9d. per Bottle.

*** The above Preparations are in the form of SWEETMEATS, pleasant to the taste, and particularly adapted for Infants, and Mothers nursing. By the combination of the Iron or Iodine with Cress-seeds in a state of germination, they are united with organic life, which thus renders them digestible. The irritative and stubborn mineral has become the nucleus of an organic substance capable of being absorbed by the blood without injury to the stomach.

Agent for England and British Possessions, Ch. LANGE, 6, Monkwell-street, City.—May be obtained of all Chemists.
West-end Agent, London—L. SCHOUVER, 21, Princes-street, Hanover-square.



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SELECT MEDICAL OPINIONS.

Sir HENRY MARSH, Bart., M.D., Physician in Ordinary to the Queen in Ireland:—"I consider Dr. de Jongh's Cod-liver Oil to be a very pure Oil, not likely to create disgust, and a therapeutic agent of great value."

Dr. BARLOW, Senior Physician to Guy's Hospital:—"I have been well satisfied with the effects of Dr. de Jongh's Cod-liver Oil, and believe it to be a very pure Oil, well fitted for those cases in which the use of that substance is indicated."

Dr. LANKESTER, F.R.S., late Lecturer on the Practice of Medicine, St. George's School of Medicine:—"I consider that the purity and genuineness of this Oil are secured in its preparation by the personal attention of so good a Chemist and intelligent a Physician as Dr. de Jongh, who has also written the best Medical Treatise on the Oil with which I am acquainted. Hence I deem the Cod-liver Oil sold under his guarantee to be preferable to any other kind as regards genuineness and medicinal efficacy."

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ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

PHYSICAL THERAPEUTICS.

Hitherto in these lectures I have confined myself to an exposition of the direct influence of cold on natural functions, but the facts that have been brought forward have a bearing also on some matters of therapeutical interest. I might enlarge, indeed, greatly in this direction, but not without referring to experiments which you have not seen demonstrated—a position which in these lectures I am anxious to avoid.

Unity of General and Local Anæsthesia.

Dwelling on such demonstrations as have been before us, or as may be at hand, I would first observe that there is an intimate connexion of action between cold and those agents which produce general anæsthesia. Here is a solution of brain matter. I freeze it; it becomes solid, and it ceases at once to act as a conductor of force. I dry it down, and I reduce it to the same state; I add to it alcohol, and interfering with the water constituent—abstracting that, in fact, from the solid matter—I have condensation of fluid, liberation of heat, and solidification of the mass. Now, the solidified and, as it would be called in this case, coagulated mass, is in appearance like to the frozen mass, and in respect to its conducting power it is also like; in a word, the true and necessary relations of force and of matter are destroyed, and there is no conduction. When alcohol in excess is introdnced into the living brain, the same changes must be induced, differing only in the matter of degree; the alcohol must seize a certain measure of water for a time, the equilibrium of force must be disturbed, and so much matter must be rendered inert, as is the case by cold. And this is really what the attendant, or rather the succeeding, phenomena testify; there is stupor of brain, and there is paralysis of power in all the organism, which symptoms last until, by the generation of more animal force from the combustion of blood, the alcohol is raised out of the organism.

There are some bodies which interfere with the force and matter of the brain in a more subtle, but not less determinate way than alcohol. I allude to those agents which can be made to reach the brain readily through the respiration by their inhalation as vapours—chloroform, ether, amylene, and their analogues. These substances carried to the vast expanse of blood surface in the lungs, and condensing to commingle with the blood, float with it to the brain and other nervous centres, and with the liberation of force in the process of solidification of structure are directly acted upon in the brain by its force at the expense of the cerebral water, and, owing to their ready expansion, with increased pressure on the cerebral substance. Thus, again there is disturbance of equilibrium of force and matter; again a condition is induced in essence the same as that produced by cold—viz., inertia of brain matter; and again follow the symptoms which are inevitable—insensibility, paralysis, and temporary death of the sentient being. Thus, when we are using chloroform as a general therapeutical agent, or when we are using ether spray as a local therapeutical agent, we are, in fact, carrying out the same physical process, with this difference only of detail, that in the first case we are separating the brain from the part, and in the second case we are cutting off the part from the brain.

Action of Saline Substances.

The action of saline substances as medicines is well explained and greatly simplified by these studies on the influence of cold. Salines have at all times been considered cooling medicines, and so-called antiphlogistic remedies; but why they should cool and allay over-action has been little inquired about. What they did has been received as matter of faith; how they did their work has been left as an impossible or even useless problem. Yet when we have before us a few leading principles, a child may understand the action of salines on animal bodies. They act, in short, only by one process, that of removing from the nervous centres and the body at large so much caloric; this they take up and augment up to a given extent their own fluidity, and as they retain the same fluidity and heat of fluidity until they are excreted from the organism, so they carry off as much caloric as they have seized, and definitely reduce the temperature. You will ask me for a visible experiment bearing upon this subject, and fortunately I can give you what you ask in a manner very peculiar and striking. I have here so much water, and I have here so much of the salt called chloride of ammonium. I now place a thermometer in the water, and the instrument tells me that the water is at 96° Fahr. I now begin to pour in the salt, and down comes the thermometer; not to lose time, I will stop when the temperature is reduced to 45°, and pass you the reduced fluid. You see clearly enough that the reduction of temperature has been due to this circumstance, that the salt has taken up so much heat of fluidity in becoming itself fluid; it has fixed so much caloric.

So far all is obvious out of an animal body; let us next go to an animal. We take a frog, and we look into the eye of the animal, and we observe a perfectly bright and transparent crystalline lens. If we killed the animal and immediately opened the eyeball, we should take out this lens to find it round, of the size of a large shot, and very clear. If we experimented, however, we should soon discover that it was readily rendered opaque and dense by cold; in fact, the lens of a frog is a kind of natural thermometer. Well, then, I have here two living frogs, and I will use them, acting on the above information, to prove by visible means the identity of action between mere cold and saline substances undergoing solution.

The first frog we will treat with ether spray until it is insensible to pain; we will then direct the spray over the eyeball, and see almost in an instant what appears: the eye is densely cataractic, the lens having become entirely opaque. This is the direct action of cold. We remove the cold; we place the creature in the condition to recover, and as it regains its power the dense lens will clear again as surely as the sun will rise in the morning; the lens will clear under the reabsorption of caloric. How often soever you may repeat this experiment, it will not fail you.

Now for the comparison. We take this second frog, and, instead of applying cold direct, we treat him in another way. Here is a solution of chloride of ammonium, of specific gravity 1150, to which degree it must be brought before it will act. I put into a syringe one fluid drachm of this solution, and with a fine perforated needle I throw the fluid, subcutaneously, into the dorsal sac of the animal. I watch the eye for a few minutes, and observe that the posterior part of the lens—the part first cooled—becomes dense; the opacity spreads, and in this brief time I hand the animal to you with dense cataract of both eyes. If you did not see the experiment, you would not know which of the two frogs was made cataractic by direct cold, and which by the indirect action of the saline solution. The comparison extends: If I place the second frog in water with a temperature a little above 59° and under 60°, exactly in proportion as the animal regains caloric, its powers will revive, and its crystalline lenses will of a certainty once more become clear.

It would be impossible to show with more exactitude than is shown by this experiment the identity of action between simple cold and salines. In some cases of disease where salines of themselves are too slow in their action, they might well be supplemented by the direct action of cold, and, indeed, there is no reason why cold air should not be directly inhaled, so as to cool the currents of blood which pass over the pulmonic circuit.

Use of Cold for Subduing Nervous Over-action.

Extreme cold has been applied apparently with great benefit in cases where the nervous centres are over-active. In acute mania the ether spray douche to the head has been followed by sudden quiet and by refreshing sleep. In chorea the spray has been applied along the spinal column also with immediate relief to the convulsive symptoms. In this direction there is much room for new research, as one concluding experiment will prove.

We have before us a large powerful frog. We will insert under the skin the forty-fifth part of a grain of strychnia. As the alkaloid makes its way to the nervous centres, we see the tetanic convulsions duly pronounced. We have exalted the force of those centres. Let us next reduce the force. To do this I will suddenly freeze the cerebro-spinal tract, the result being, as you observe, entire cessation of the tetanus. Here is another frog in which the tetanic action has been held in abeyance by the cold for eight hours, but when the cold is withdrawn straightway the tetanus returns.

At the present moment I have no comment to make on this

important experimental truth. I do not know to what it may lead, and I would not suggest the hope of its leading immediately to any new point of practice; for a man is not a frog, and by the extremest cold at my command I cannot reduce the temperature of the spinal column, even of the dead human subject, one degree. But, for all that, there is the positive truth in our possession, that in an animal whose spinal cord can be reached, extreme cold, so long as it is in action, will stop tetanic convulsion of the intensest kind.

In October next, gentlemen, I hope to have the pleasure of continuing these demonstrations, and of being honoured by seeing you here again.

ORIGINAL COMMUNICATIONS.

REPLY TO DR. BEATTY ON THE PROPERTIES OF DR. BEATTY'S FORCEPS.

By ROBERT BARNES, M.D. Lond., F.R.C.P.,
Physician and Lecturer on Midwifery at St. Thomas's Hospital, etc.

I HAVE read with great pleasure, and I trust with profit, the criticism of Dr. Beatty upon my objections to his forceps. That criticism, at once judicious and generous, as might be expected from a man so eminent for experience and kindly courtesy, impels me to offer some further observations upon the subject.

1. I have said that "the best short forceps is, *perhaps*, that of Dr. Beatty, of Dublin. It *much* resembles the short forceps of Smellie." I would, at the outset, make two corrections—by striking out the words "*perhaps*" and "*much*."

2. The term "short," to which Dr. Beatty objects, also requires explanation. I use it as alternative with "single-curved," as distinguishing this class of instruments from the "double-curved" or "long" class. It would be more accurate to discard the terms "long" and "short," for a single-curved forceps may be "long," as is the case with Dr. Beatty's, and a double-curved one may be "short," as are some that I have seen.

3. As to the resemblance of Dr. Beatty's forceps to Smellie's short forceps. Here further explanation is necessary on my part. Dr. Beatty's instrument is considerably longer than Smellie's. The resemblance consists in the general form of the blades and fenestræ, and in a great measure *in the use to which both can be applied*. This use is essentially that to which the single-curved forceps is nearly entirely, and, in my opinion, properly, restricted—namely, the application to deliver a head wholly or partly engaged in the pelvis. I have, of course, discharged my duty and gratified my desire for enjoyment and profit by studying Dr. Beatty's "Contributions to Medicine and Midwifery." I find in his excellent and most useful memoir on the forceps these words:—"In the observations that follow . . . I will allude only to the more common cases of difficult labour, in which, after several hours of severe pain, *the head has been forced to a greater or less extent into the cavity of the pelvis*, and is there arrested." (P. 97.) And in the histories of the fifteen cases narrated, it is stated in every instance that the head was partly or wholly in the pelvis. At p. 116, it is said that, "from the length of the blades, the lock will not be within the vagina." This, to my mind, is further evidence that Dr. Beatty does not insist upon the fitness of his instrument to seize and deliver a head arrested *above the pelvic brim*. I have tried his instrument in such cases, and the lock had to go fairly within the vagina. Being longer, however, Dr. Beatty's forceps will command a greater number of cases than Smellie's, and yet it leaves many cases behind which a perfect forceps ought to command.

4. I will now say a few words on Dr. Beatty's reply to my "objections." First, as to the necessity, alleged by me, that the patient's nates must be dragged over the edge of the bed in order to allow the handle of the upper blade to be sufficiently depressed to enable the point to travel over the head-globe. I contend that in certain cases—I have met with them—as of convulsions, hæmorrhage, great restlessness of the patient, faulty structure of the bed, and the want of assistants, it is difficult, highly inconvenient, or even impossible, to get or to maintain the patient on her left side, with the nates well over the edge of the bed. I have had to deliver by forceps a woman in convulsions on the floor. In such cases the advantage of possessing a forceps like my "double-curved," and of using it as I describe, is very great. It can be applied whether the patient be on her back, or on her side in the middle of the bed. Dr. Beatty seems to claim a similar quality for his forceps, when he says the position on the side over the edge of the bed "is of no moment, for the depression of the handle nearly at right angles with the mother's thigh is not only unnecessary, but wrong." He then describes how to introduce his forceps. "The operation should be commenced by laying the concave surface of the blade flat upon the lowest part of the child's head, and when so placed *the handle will project between the thighs of the patient;* then bringing the handle slowly down. . . . When one blade is thus placed, the handle will be found to be close to the fourchette; it should be given to an assistant to hold steady, and then the same proceeding should be adopted to insure the safe introduction of the *other*." This is a description of the mode of introducing the pubic or upper blade, which, I believe, it is the Dublin practice to introduce first. It is the pubic blade which makes the difficulty. Now, I freely admit that in the first stage you may pass the blade into the vagina to touch the child's head in the way described, so that the handle shall be between the mother's thighs. So far you may, indeed, pass the blade in this or in any way that may be most convenient. But in the next stage, that in which the point of the blade has to travel over the head-globe, it appears to me axiomatically necessary that the handle must be depressed just in proportion to the elevation the point must take to rise over the head. Dr. Beatty himself directs "the handle to be brought slowly down." He does not indeed say how far down, but this is indicated by the conditions of the case. The point must, to get over the equator of the head, run nearly vertically upwards; the handle, therefore, must be turned nearly vertically downwards—that is, across the mother's right thigh. And the length of the forceps, "twelve and a half inches," must carry the end of the handle into the bed-clothes if the nates are not drawn clear over the edge. Is not this matter of common experience? I confess I am unable to understand how to avoid this dilemma.

5. Dr. Beatty "concludes that the instrument spoken of by me is not his at all." This forces upon me the unwelcome suspicion—which I am sure Dr. Beatty never dreamed of suggesting—that he has provided a good instrument, but I have not known how to use it. Accepting this alternative, I will humbly follow Dr. Beatty's instructions, and try again. I must, however, plead that I have used this instrument in at least twenty-five specified cases. In most of these cases I was greatly satisfied with its efficiency. It is admirably light, well-balanced, elegant, and very easy of introduction. Its length makes it a good lever, and I am glad to observe that Dr. Beatty recognises the principle of using the forceps as a lever. But I would also observe that owing to the shortness of the handles—the absence of shoulders or ring reducing it to a one-handed instrument—the slimness of the shanks and blades, so great that these easily "spring" or bend under compression, and the length of the radius of the bow, the grasping, compressing, and traction powers are not great. This Dr. Beatty and the adherents of the single-curved forceps will probably regard as a merit, and so it is for a forceps whose duty is limited to delivering a "head arrested in the pelvis." Moderate leverage power is often all that is wanted in such cases. But the instrument fails before those more difficult cases of arrest of the head *on the brim*, whether from inertia or slight pubic contraction. I say this from ample experience, having in several such cases first tried Dr. Beatty's instrument without success, and then succeeded readily with the long double-curved forceps. The case narrated in detail by Dr. Beatty was an eight months' child. I admit that Dr. Beatty's forceps will often prove sufficient in cases of arrest of the head only partially engaged in the brim, and even in some cases where the head is quite above the brim; but then the lock runs into the vagina, power is lost, the perinæum—I insist upon this—is put unnecessarily on the stretch, for in proportion as the point is directed forwards to get above the brim, the handles must be forced back against the perinæum and coccyx. These inconveniences and others are quite obviated by my double-curved forceps.(a)

(a) On comparing the instrument brought by me from Dublin and the one kindly presented to me by Dr. Beatty, I find the latter is half an inch longer in the blades. But increased length in a single-curved forceps can only increase the faults to which I have directed attention. A single-curved forceps, I think, ought to be short. If you make it long enough to reach above the pelvic brim, it ought to be provided with the pelvic curve.—R. B.

6. The shank intervening between the lock at the commencement of the bow of the blades, adding two inches and three-quarters to the length of the handles—of which Dr. Beatty speaks a little slightingly—has these great uses: it carries the lock clear out of the vagina, even when the head is grasped above the brim; it increases leverage and traction powers; in conjunction with the pelvic curve of the blades, it obviates all strain upon the perinæum; and by adding to the length of the handles, and supplying a ring for holding, it makes a *two-handed* instrument, to the great increase of power, delicacy, and comfort in use. I will only further remark upon Dr. Beatty's plea that in Dublin "we do not meet the torn perinæums that Dr. Barnes fears as the result of its use" (Dr. Beatty's forceps) by citing a statement lately made in my presence by Dr. Denham at the Rotundo Hospital—namely, that they there had to perform the operation for lacerated perinæum very frequently. Of course, I do not imply that this necessity always arises from the use of Dr. Beatty's forceps. But the risk of tearing the perinæum with *any* straight forceps, *the bow of whose blades springs direct from the lock*, even if the handles are carried well forwards, must be serious. The blades will form a double inclined plane or wedge beyond the head. No ingenuity short of taking off the instrument will always avail in preventing this wedge from splitting up the perinæum, especially of a primipara.

In conclusion, I feel bound to say that, thirteen years ago, when on a visit to Dublin, I was so struck with the elegance of Dr. Beatty's forceps that I adopted it in practice, the particular specimen I used having been recommended to me by Dr. McClintock. It would have given me sincere pleasure to find such an instrument do the work—I mean *all the work*—that came before me; but I soon discovered that it was not equal to the exigencies of my practice. I wanted an instrument that would more largely supplant the perforator—that would save more children, and rescue the mother more quickly from the dangers of exhaustion. I therefore fell back upon my "two-handed double-curve."

As I have by anticipation acceded to Dr. Beatty's polite invitation to use his forceps, may I in return hope that he will do me the honour to try mine in some proper case—if he should meet with it—which lies beyond the reach of his own?

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
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No. III.

Reparation of Wounds of Arteries and Veins in the Treatment of Hæmorrhage.

The treatment of hæmorrhage of traumatic origin should be responsive to the processes of reparation in blood-vessels, by which the escape of blood is naturally arrested. These processes I described in my last communication, with reference to each of the typical forms of lesion, in arteries. Incised and lacerated wounds respectively, partial, and complete, and as varied by the direction of the wound and the size of the vessel, were thus considered. All such wounds are naturally disposed to heal by modifications of a reparative process, which is ever the same essentially—coagulation of the blood *in situ*, and the formation of a clot-compress, so placed as to stop the flow of blood—a temporary provision for this purpose, followed by "primary adhesion," or possibly adhesive inflammation, whereby the vessel is permanently sealed or obstructed.

The general relation of pathology to treatment is well illustrated by that of blood-vessels; a due knowledge of the process referred to supplying, as usual, the three characteristic indications of treatment; enabling the Surgeon to estimate also the remedial value of the various rules of treatment which have been advocated, and the various measures proposed for their fulfilment.

The earliest occasion for interference with hæmorrhage, is the first indication of treatment derived from pathology. The necessity for any Surgical (or Medical) resource arises, not from the fact of hæmorrhage, but its persistence. *Small* arterial vessels spontaneously cease to bleed, almost immediately; the process of reparation, as appropriate to the injury, at once commencing, and even its preliminary stage proving sufficient to arrest hæmorrhage. Thus, if the vessels be divided entirely across—"complete incision"—as in most wounds, their cut extremities retracting and contracting, soon offer adequate resistance to the escape of blood. This natural provision will be ensured by exposure of the wound to cool air, or a stream of cold water squeezed from a sponge. Gentle pressure with the sponge will readily discover whether there be still any oozing from the bleeding points.

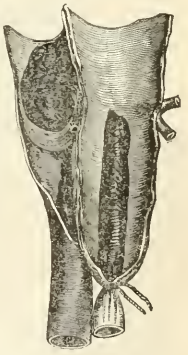
The Kind and Least Amount of Assistance.—Larger-sized arteries bleed in jetting streams of florid blood, and the resources of Surgical treatment are forthwith necessary to meet such hæmorrhage. These are successful so far as they represent, by imitation, one or other of the natural modes of arresting hæmorrhage.

Compression—mediate, as it is sometimes termed, when not directly applied to the bleeding vessel—may be effected either by the finger or a tourniquet, applied over the parent artery, at the most eligible spot betwixt the wound and the heart. Pressure thus applied is only a temporary resource. *Immediate* compression is effected by pressure directly applied to the bleeding vessels. A compress and bandage, applied firmly, but not with unnecessary tightness, will thus prove sufficient. This mode of compression may be regarded as representing the clot-compress of nature.

The *ligature* is a Surgical appliance in imitation of a lacerated wound, partially extending through an artery—*i.e.*, through its two inner coats, which are thin and fragile, leaving the thicker and tougher outer coat and cellular sheath untorn. The effectual operation of this appliance is—compression of the vessel to induce coagulation of the blood stagnant above and below the ligature, and the effusion of plastic lymph, from the divided coats, to permanently occlude the vessel in both directions; sloughing of the included ring of outer coat and cellular sheath being rendered necessary to detach the ligature. The details of this reparative process, thus induced artificially, are these.

The included portion of external cellular coat and sheath having undergone continued compression, sloughs, and is detached with the thread, in a period varying from twenty-four hours or so to about three or four weeks, chiefly according to the size of artery. Hæmorrhage would then be inevitable; but, pending the detachment of this slough-ring, effusion of plastic lymph, from the vasa vasorum, takes place, whereby the two inner coats become adherent across the area of the vessel, just above and below the ligature. At these points they curl inwards when divided, and, converging, meet together. This condition was well seen in a femoral artery (and vein) (Fig. 1), which I examined five days only after it had been ligatured when the thigh was amputated. The post-mortem appearances of the stump are described in the *Lancet* of December 28, 1861.

Fig. 1.



A process of organisation, therefore, above and below the ligature, accompanies the destruction and detachment of the ring of external coat embraced by the thread. Thus the artery is securely sealed. Accessory, but incidental only, to the prevention of hæmorrhage, are certain changes whereby either portion of the artery contiguous to the ligature is obliterated.

The vessel having ceased to convey blood when the ligature was applied, the blood stagnant, above and below, to the nearest collateral branch, has gradually undergone coagulation in the shape of two conical clots, the bases of which accurately plug the artery on either side of the thread. The apex of the clot on the cardiac side tails off, usually opposite the first collateral branch above, through which the stream of blood, now diverted from its course, is carried off from the main. This extent of coagulum is seen in the preparation, as figured. The distal clot is always less defined.

At first either clot having the appearance of ordinary coagulum, subsequently it becomes mottled with paler spots, and its substance porous, and ultimately acquires a buff colour, firm consistence, and fibrous texture. Blood-vessels, proceed-

ing from the lymph immediately above and below the ligature, shoot into the base of either clot, and gradually extend towards its apex. Finally, these organised fibrous clots are incorporated with the lymph adjoining, which has acquired a similar structure; the coats of the unused portions of artery degenerating also assume a fibrous character, and the whole is converted into a small, firm, impervious, fibrous cord, extending usually to the first collateral branch above and below. Nature having safely severed the artery—under compression by the ligature—and securely sealed either end, has now obliterated the portions useless as a blood-conveying tube.

An artery of any notable size is most effectually and permanently secured by ligature. *Appropriate*, therefore, for the arrest of hæmorrhage which would otherwise be persistent or recurring and perilous, the ligature is applicable also whatever may be the kind of wound in the vessel, whether incised or lacerated—its extent, partial or complete—and its direction, with reference to the elasticity and contractility of the vessel. The *objections* to ligature are, the production of a slough or sloughs of arterial texture, according to the number of vessels ligatured; the introduction of a foreign body, or as many foreign bodies, into the flesh wound—a condition proportionately antagonistic to the process of healing by primary adhesion; and, with suppuration consequently, and the sloughs, provocative of pyæmia. The efficacy of ligature in the treatment of hæmorrhage from wounds of arteries, of flesh-wounds, and in relation to pyæmia, is to be estimated by all these considerations; and thence the value of this method of treatment, as compared with that of "acupressure," proposed to supersede it.

Certain particulars are of great moment in the *application* of a ligature, the observance of which, a due knowledge of the process thus induced for the arrest of hæmorrhage, can alone ensure. It is in this light that I specially here advert to them. But they have reference also to the value of ligature, as a method of treatment; for they determine the probability of hæmorrhage recurring or supervening, and also of the healing of a flesh-wound by primary adhesion, when an artery or arteries are thus secured.

The practical particulars having this twofold significance are these:—A ligature should be applied to *cut* through the two inner coats of the artery, leaving only the outer more resisting cellular coat and sheath. Hence the ligature must be a small, round, and strong thread—fine silk twist waxed being found to answer best. Applied with sufficient tightness for this purpose and to induce sloughing of the outer coat by *strangulating* compression. Applied *transversely* across the diameter of the vessel, and tied with a reef-knot; otherwise the ligature shifting its position and loosening, hæmorrhage recurs or supervenes when adhesion is not yet sufficiently advanced to safely seal the vessel. Applied so as *not* to include any *extraneous* texture—a bit of muscle, a vein, or nerve; for then the twofold effect on the artery enclosed may not be produced, or sloughing may proceed more speedily in the extraneous texture than in the arterial coat, the ligature become loosened, and hæmorrhage supervene. Inclusion of a nerve-filament causes also great pain at the time, and for a considerable period in some cases. An imbedded artery may be inaccessible without including some other texture. In the most inaccessible situations—as when, by amputation, the anterior tibial artery is divided at its origin and deep in the muscles between the heads of the tibia and fibula—it is absolutely necessary to "dip" for an artery so placed. A curved needle armed with a ligature is thus carried round the vessel, and the thread tied as usual, but including as small a quantity of extraneous texture as possible. On the other hand, the ligature should *not* be applied to any *projecting* portion of artery; the vessel being there denuded of its own nutrient vessels (vasa vasorum), plastic lymph is not effused, and when the slough-ring separates, hæmorrhage is inevitable.

Duly observing all these suggestions of pathology, the constructive part of the process—adhesion—will generally accompany the destructive—sloughing—with even progress, and the issue of both will be contemporaneous; permanent closure of the vessel accompanying the separation of a ring of slough with the ligature. The security of the vessel is safely ascertained by gently twirling the thread between the thumb and finger. A yielding sensation shows that nature has done her work, and that the ligature detached can be withdrawn without the risk of hæmorrhage. This, however, cannot be expected, nor should the experiment be tried before sufficient time has elapsed—the *period* varying from twenty-four hours to as many days or more, chiefly according to the *size* of the artery. Regarded as a *foreign body*, antagonistic to healing by primary adhesion, one end of the ligature is usually cut off close to the knot on the artery, leaving only the other end to command the noose, thus reducing the quantity of foreign body in the wound by one half. The ligature or ligatures may be brought to one or other angle of the wound, and there fixed by a small piece of plaster, thus also limiting any defective adhesion to the narrow track occupied by the thread or threads. Practically, it is found they do not much interrupt the process of healing or delay the issue.

"Acupressure" has been proposed by Sir James Simpson as a substitute for ligature. It is essentially the "*temporary metallic compression*" of an artery,(a) and it may be accomplished in either of three ways:—By passing a long needle twice through the flaps or sides of a wound, so as to cross over and compress the mouth of the bleeding vessel or its tube, just as in fastening a flower in the lapel of our coat we cross over and compress the stalk with the pin which fixes it, and therefore pass the pin twice through the lapel. In this method a long needle is introduced from the cutaneous surface, and its extremities left out *externally*. In both the other methods a common sewing-needle, threaded with iron-wire, is used. The needle is introduced on the raw surface of the wound, and is therefore placed altogether *internally* or between the lips of the wound. The wire is only for the purpose of withdrawing the needle when no longer required. In one of the methods referred to, the needle is dipped down into the textures a little to one side of the vessel, then raised up and bridged *over* the artery, and finally dipped down again into the textures on the other side. This method, therefore, is the same as the first, but that the needle is applied altogether on the raw surface of the wound and over the artery, which it compresses. The third method consists in passing a needle *under* the vessel, transfixing the textures once. A loop of wire is passed over the point, and fastened round the eye end by a single twist, thus compressing the artery and some surrounding tissue between the needle and the wire. This method Sir James Simpson believes to be the one which will probably be most frequently practised. And in one form or other acupressure is said to be superior to ligature, both with regard to the improbability of *secondary hæmorrhage* and to the probability of *healing by adhesion*.

Respecting hæmorrhage after amputations, in eleven cases of acupressure only one was followed by secondary hæmorrhage; whereas in eleven cases of ligature, four of secondary hæmorrhage occurred, of which two were fatal. Such were the comparative results after amputations at the Carlisle Hospital (Hamilton's Report). In other words, in that institution secondary hæmorrhage from ligature and from acupressure was as four to one in eleven cases. Other favourable results might be added. The most recent report is that of Professor Pirrie,(b) who, with Dr. Keith and Dr. Fiddes, have more especially practised and advocated this mode of arresting arterial hæmorrhage. The former thus enumerates his "experience in important cases, of which records have been kept. Eleven cases of amputation of thigh, four of amputation of leg, two of amputation of arm at the upper part of the Surgical neck of the humerus, one of amputation at ankle-joint, one of Chopart's amputation, two of amputation of the whole of great toe, twelve of excision of mamma, six of excision of elbow-joint, one of excision of knee-joint, one of excision of an erectile tumour, one of excision of tumour on chest, one of excision of tumour on thigh (wound eight inches long), one of excision of head of fibula, three of excision of testicle, one of hæmorrhage from sloughing of hand, one of wound of hand, one of wound of upper part of forearm with great hæmorrhage, one of wound of radial artery, and one of wound of hand attended with great hæmorrhage—in all 51 cases, in which 1 (Professor Pirrie) have acupressed 185 vessels."

But experience has not yet sufficiently accumulated to determine the relative value of these two kinds of treatment with reference to the improbability of *hæmorrhage* supervening. Nor can pathology at present contribute towards the settlement of this question. "We want," acknowledges Sir James Simpson, "a series of proper experiments and observations as to the actual *pathological mechanism* by which acupressure occludes the mouths and tubes of arteries before we can attain fixed ideas as to its progress and completion." This know-

(a) "Acupressure." 1864.
(b) *British Medical Journal*. Annual meeting of the Association, Dublin, 1867. See also "Acupressure."

ledge we do possess respecting the occlusion of arteries after ligature; wanting it in respect to acupressure, the *comparative* probability of secondary hæmorrhage occurring cannot thus be estimated. On the other hand, the periods for the safe removal of needles from different-sized arteries being unknown, this deficiency in our knowledge undermines all the conclusions drawn from the results of *experience* alone. With regard to the probability of *adhesion* taking place between the *surfaces* of a wound, the arteries of which are secured by acupressure, it is alleged that the needles are, as foreign bodies, "merely temporary," that their material is less irritating than that of ligatures, and that they are not intended or allowed to produce sloughing of the compressed arteries, whereby foreign bodies of worse character, in the shape of slough-rings of the cellular coats of these vessels, are produced and remain between the raw surfaces. Hence the greater probability, apparently, of *pyæmic infection* supervening. And certainly the observations of Professor Pirrie are here to the point, not a single instance of pyæmia having occurred in his experience where acupressure has been employed by himself or his Hospital colleagues at the Aberdeen Hospital.

In reference, however, to the supposed advantages of acupressure, it must be admitted, that the *proper period* for the withdrawal of the needles from different-sized arteries is *unknown*, that the *tolerance* of wounds for metallic and organic matters respectively is an *open question*, and that endeavouring to estimate the consequence of *one*, *two*, *three*, or more very small ring-sloughs of cellular tissue which can be provocative of pyæmia *only* just when the ligatures separate, and are *perchance* left behind in the wound as they are withdrawn, is "to consider too curiously to consider so."

There is yet another kind of treatment, which, in relation to arterial hæmorrhage, may be regarded as an imitation of another natural process of cure. *Torsion* is effectual by laceration of the two inner coats of a bleeding artery, the outer one remaining as a loose filamentous sheath, which, entangling the blood and forming a plug, is equivalent to any accidentally *complete* laceration. But this is an exceptional proceeding, preferable to ligature only for small arteries, the hæmorrhage from which, if not ceasing spontaneously, may be commanded by a pinch and twist with the forceps.

Wounds of Veins heal by processes apparently analogous to those which wounded arteries undergo. The treatment, however, for arresting hæmorrhage is chiefly empirical. Pressure, cold, styptics, and an elevated position of the part are well-known expedients, rather than *imitations* of any process of reparation—not, in fact, part of the Pathological Practice of Surgery.

CASES, MAINLY, OF DISEASE OF THE NERVOUS SYSTEM IN WHICH THE OPHTHALMOSCOPE WAS USED.

By JOHN W. OGLE, M.D.

In June, 1860, I communicated to the *Medical Times and Gazette* a short statement showing the use of the ophthalmoscope as a help to diagnosis in cerebral diseases. Being reminded thereof by certain cases which were lately published in this journal (see number for May 11, 1866), and which had occurred in the practice of Dr. Allbutt and Mr. Teale, of Leeds, I now place on record certain additional ones in which this instrument has been used for me, chiefly at St. George's Hospital, either by Mr. Holmes, my colleague, or Mr. Rouse, who kindly lent me their valuable assistance when occasion required.

Referring to my previous cases, I may mention that Case 3 continued to improve much, and that her sight became much better, but the divergent squint remained much the same. The little boy's case, with amauresis, alluded to in my comments upon Case 3, so much improved that I have thought it worth while now to relate it at greater length as Case 5.

Case 5.—Amaurosis, probably from Effusion into the Cerebral Ventricles.

James B., aged 12 (out-patient), one of eight children, with good general health, was extensively amaurotic with both eyes. In addition to the excessive dilatation, and complete inactivity to daylight, of both pupils, there was divergent strabismus of the right eye. The loss of sight was all but complete, as he was only able to see the hand dimly when waved before the right eye. Could tell daylight from night. A marked lateral *oscillation* of both eyes existed. It was stated that his loss of sight followed violent retching, which came on after an attack of intermittent fever, that caused much pain in the head, especially the forehead, a year previously. He was very intelligent, with a gentle, good disposition. The muscles of the face, as of all the extremities, were unaffected. The tongue was clean. Appetite good. He took cod-liver oil, cinchona, and small doses of bichloride of mercury, and subsequently iodide of iron, and continued under treatment for two years. After about fourteen months' treatment, the sight was very much better with the right eye, and he could see his way in walking. The *ophthalmoscope* was then used. It was found that the concentrated light caused the pupils to act, and the right one, under the light, became almost diminished to the natural size; the left one not to such a degree. The condition of the retina in both eyes presented nothing worthy of remark.

After three more months he could see the lamp-posts in the street; a seton was placed in the neck. Subsequently he had a very long-continued and violent attack of convulsions. No further history.

Case 6.—Fits followed by Partial Hemiplegia, probably Strumous Disease of the Brain.

Harriet D. aged 38 (out-patient), a married woman with four children, of whom one had had fits. Catamenia absent five years since birth of last child. There was convergent strabismus of the left eye, and both pupils were very large, but active to light, though the sight was better with the right eye than the left. She said she often "saw double." Tongue protruded and furred. Her memory was bad; spirits low; and the right arm and leg were very weak. No deafness or running from the ears; no albumen in urine; no cough or spitting. There was vomiting three weeks previously. During the year previously she had had ten or twelve fits lasting all the day, during which she always lost consciousness. She had been an in-patient under Mr. Cutler previously with abscess of the hand. She was treated with bark and small doses of mercury; but a "fit" of a severe character, followed by sleep, having occurred, she had a blister on the back of the neck. Another fit succeeded, but she improved generally, and, to a certain degree, regained power in the right arm so as to be able to thread a needle. On examining the eyes with the *ophthalmoscope, the optic disc was found to be opaque, shading off at the external periphery; the vessels also were obscure.* Sight became defective with the left eye. More fits occurred, and stethoscopic indications of deposit in the upper parts of the lung were observed. Cough and spitting came on. In one fit she quite lost the use of the right side. She was under care for six months, and then ceased to attend.

Case 7.—Disease of the Kidneys, Anasarca, etc.

William W., aged 35, was an in-patient with anasarca and highly albuminous urine. The eyesight was very "dim." He had pain in the head and sickness every morning. The ophthalmoscope showed that *there was œdema of both optic discs, and a slight albuminoid deposit.*

Case 8.—Ague.

Thomas W. (out-patient), aged 24, from Sheerness, with a yellow aspect, and the subject of ague, which came on him at first every day for a week, then every other day. When seen, the attacks had come on every day for a month. He stated that when he had the attacks he "turned yellow," and the sight became dim. The sight with the left eye had been long imperfect. Old nebulæ of both corneæ existed. On examination with the *ophthalmoscope*, there was *irregular pigmentation of the right retina. The left retina was atrophied, the central artery being extremely small.*

Case 9.—Pains (probably Neuralgic, of Rheumatic Origin) in the Head and other Parts.

Julia M., aged 30 (out-patient), married, for two years had been subject to pain in the forehead and chest and between the shoulders. She had had rheumatic gout in the right hand. There was no albumen or sugar in the urine, and no affection of the lungs or heart. The left pupil was much larger than the right. The sight with both eyes was very affected, and she had worn spectacles for a year. She could not well see small objects, and could not thread a large-holed needle. She stated that the eyes were wont to become dim suddenly, and then pain in the forehead would come on. The *ophthalmoscope* showed a *want of tone in both retinæ, as in the early stage of atrophy of the retina.* She greatly improved under the use of ammoniated citrate of steel, followed by

quinine, iron, and strychnia, and belladonna and opium applications to the painful parts.

Case 10.—*Injury to the Head.*

James W., aged 10, had had several blows at the back of the head on the right side two years previously, and a depression in the bone about the right fronto-parietal suture was plainly distinguishable. The muscles of the face and extremities were natural, and the special senses unaffected. Both pupils were rather small, and almost quite inactive to light; they were equal. The *ophthalmoscope* merely showed *slight atrophy of both optic nerves.*

Case 11.—*Partial Hemiplegia.*

Thomas McC., aged 33 (out-patient), had been under Mr. Holmes's care for pains in the neck, shoulder, and arm, and eleven days before I saw him had found his right leg and arm powerless on walking. He was not aware that he had had a fit. He walked pretty well, with care lest the right leg should drag. The grasping power of the right hand, as tested by the dynamometer, was less than that of the left, and there was numbness of the right hand as high as halfway betwixt the elbow and the wrist, and of the right leg from the knee downwards. The right arm and leg were always worse in cold weather. The skin of the whole of the right side of the face was less sensitive to pinching than on the other side. Since the attack the sense of taste was somewhat affected; other special senses correct. A piece of writing-paper, when felt between the fingers, appeared to the patient as if half an inch in thickness. The pupils were equal, acting feebly to light. The arcus senilis existed. Words were at times "clipped." The urine was free from albumen. *The ophthalmoscope showed the optic nerve of the right eye to be very pale and grey in colour, the vessels being small. The retina was pale and anæmic, and there was posterior staphyloma on the inner side. The retinal vessels of the left eye were small, and the retina pale, showing the choroidal pigment in places.* The patient improved under small doses of mercury, with cinchona and blisters to the neck.

Case 12.—*General Debility following Syphilis.*

Thomas W., aged 34 (out-patient), complained of giddiness, sweating, and cough. There was much tendency to tremor of the muscles generally, and the pulse was feeble, though regular. The pupil of the left eye was much smaller than that of the other, and had irregular edges; both acted to light. He had had syphilis six years previously, and secondary erruptions, and at that time the eyes had suffered in some way. The urine was free from albumen. The tongue and mucous membranes were very anæmic. He complained much of pain in the legs. The *ophthalmoscope* showed the media to be clear, and absence of disease of the retinæ; but there was *extensive posterior synechia in both eyes, the result of syphilitic iritis.* The patient improved under the use of sulphate of quinine and iron, and then iodide of potassium and iodide of iron.

Case 13.—*Illness following a Sun-stroke and Syphilis.*

Charles B., aged 41 (out-patient), had had a sun-stroke nine months previously, and since then there had been protrusion of the left eyeball and complete ptosis of the left eye. The attack was not accompanied by unconsciousness. The left pupil was oval and very dilated, and he was only just able to see with the left eye when the upper lid was held up. He never saw double. His memory was deficient, but special senses good excepting sight. The scalp was hot. The tongue clean and protruded straight. Muscles of face and extremities natural. He had had "the venereal" six years before, but said there had been no "sore." The *ophthalmoscope* showed *the left optic nerve very pale, atrophied, "chalky," oval from above downwards; the choroid was natural and free from any spots. The right optic nerve entrance was vascular.* The right pupil acted well to light; the left one very insensible. Under the use of iodide of potassium and cinchona he much improved, and became much more able to open the left eye. After eight weeks of attendance he ceased to appear.

(To be continued.)

Medicine in the Days of Molière.—Poquelin's great satire on our Profession in *Le Malade Imaginaire* leads one naturally to inquire what was the actual condition of Medicine in his days. The question is very fully answered in a work of extreme literary and Professional interest which has been written by Dr. Maurice Raynaud, and which has been published in Paris. Those who wish to compare Physic in 1634 with Physic in 1867, should dip into its pages.

ON THE USE OF OPIATES IN CONTINUED FEVER.

By N. G. MERCER, M.D. Edin.,
Formerly House-Surgeon to the Clayton Hospital and Wakefield Dispensary.

Practitioners who have had even a moderate experience of continued fever, and felt the anxiety proper in cases of a very serious disease, must feel the climax of their concern when an assemblage of symptoms arises, indicating either that the patient must die or that the experiment of an opiate must be essayed. Nothing, therefore, can be of greater importance than that this train of symptoms should be readily recognised and appreciated, for any failure therein is attended with dreadful responsibility, if we consider that our narcotic in such cases has a remarkable therapeutic power, and gives to the sinking energies of life their last chance of rallying. Impressed with this view of the utility of an opiate, I have thought it not amiss to place upon record a case where its exhibition had the happiest influence in checking the fatal tendency of typhoid fever. This case, having quite recently occurred to me in Dispensary practice under circumstances in which it was impossible to carry out an otherwise proper conduct and treatment of the disease, will serve all the better to illustrate the high value of an opiate in cases of the utmost severity.

The patient was a pensioner, 47 years of age, and had been a great drunkard. He was one of many in a large Irish lodging-house who were stricken with typhoid fever. More unfortunate hygienic conditions it were difficult to conceive than those existing in this "house for travellers." There were three stories to it, and in the topmost, consisting of one small apartment, stood three ponderous beds, where husbands and wives, to the number of six adult individuals, contrived to kennel. The middle story of the tenement was well filled by the master of the house and his family. These numbered nine in all. They had been smitten with the fever, and one of them—a girl of 14—had succumbed and died. Old articles of furniture and clothing were crowded into all vacant corners; the *odor humanus* pervaded intensely the whole habitation; and, as a matter of course, the inmates were agreed that fresh air was a thing to be shut out and diligently eschewed. Indeed, the casements were completely fixed and immovable, and, to give ingress to air, several panes of glass had to be smashed. In spite of instructions to the contrary, however, I afterwards found the openings thus made carefully packed with old garments to prevent "the cold air from blowing in." Thus unfavourably circumstanced as regards hygienic conditions, J. R., the pensioner, passed through a dreadful attack of typhoid fever. His case was from the first attended with the gravest typhoid phenomena. I had attended him for nearly two weeks, and the symptoms were growing daily more alarming, although an exception must be made in favour of an attack of bronchitis, which had been severe from the beginning, but had undergone partial improvement. The delirium had not abated for three days, and its active character frequently necessitated restraint to keep the patient in bed. The pulse-rate had gradually risen in frequency, and had reached 144 per minute. Great wakefulness had existed from the first, but in the middle of the second week had become so extreme, that out of twenty-four hours scarcely a whole one of sleep was obtained as the aggregate of many short-lived snatches. The bowels had been alternately loose and constipated, the evacuations invariably presenting the peasoup characters. The following were the signs and symptoms present on the thirteenth day of the fever, on which, as determined by treatment, the turning point seemed to take place:—The patient was almost completely deaf, and, when asked in a loud tone to show his tongue, seemed to comprehend nothing. A view of it was, however, obtained by mechanically separating the jaws, and it was seen to be black-brown in colour and perfectly parched, while the teeth were covered with sordes. The respiration was hurried from the bronchitis, although this did not exist to the same extent as a few days before. The abdomen was literally blown out with tympanitis; the patient was continually fumbling with the bedclothes, and muttering inarticulate sentences. The evacuations were and had been involuntary for three days. During two entire days and nights, at the very least, his wife declared that the wakefulness had been without a moment's intermission. All the symptoms present in general, although this last

and the existing character of the pulse in particular, indicated and warranted the experiment of an opiate. That character of pulse is hardly to be described; once felt it is perceived to be remarkable, and is not forgotten. In this case it was not possible to estimate the number of beats per minute, on account of its extreme rapidity, but chiefly—thus completely conforming to that description of pulse where opium is highly serviceable—because of its weak, fluttering, confused, and indistinct character. The beats appeared to run into one another, without that appreciable interval present in all other variations of the pulse, whether in health or disease. Such are the circumstances under which we are culpable in withholding an opiate, as the last chance of saving our patient's life. A very mild one in this case was found sufficient to compass the object in view. A pill containing half a grain of opium was to be given at bedtime, and if this seemed to have the effect of slightly lessening the delirium and restlessness, a pill of like strength was to be administered in two hours. If a tendency to sleep happily supervened, the second pill was to be omitted.

From the very hopeless nature of the symptoms present on the afternoon when this treatment was adopted, the prognosis I gave was to the effect that the patient would certainly die; and at my visit on the following day I did not dare to expect an improvement in the symptoms, although in cases less severe I was well acquainted with the beneficial influence of opium. My disappointment, however, was as great as it was agreeable. The patient's wife informed me that after giving him one pill only he showed a strong disposition to sleep in less than half an hour, and that accordingly the other pill had not been administered. Soon after he fell into a profound slumber, and at my visit he was calmly asleep. At intervals he was disturbed, in accordance with my instructions, for the purpose of giving nourishment. Under the influence of the half-grain of opium, the pulse, too, had undergone a most notable change, having fallen to 132 per minute, and its beats having grown perfectly regular. Although I still gave a cautious prognosis, the symptoms had become, in fact, a little hopeful, while the day before they were desperate.

The subsequent history, which might be termed one of uninterrupted improvement, may be summed up in a few words. Ever since the eventful night when the soporific was given, the patient enjoyed nightly a few hours of refreshing sleep. Delirium thereafter formed a very slight feature in the case, and his deafness also went gradually away. What tended chiefly to retard recovery was an immense sloughing bedsore, which burrowed amid the muscles of the nates, and exposed the crest of the ilium. Under suitable applications, however, this was towards the close of the fourth week converted into a healing, granulating ulcer. Ammonia and bark were early and freely given after the active symptoms of fever had abated, and our Dispensary contributed towards enriching his by no means over-liberal diet, for he took daily after the third week three ounces of cod-liver oil with a keen relish and to his great benefit. Soon after I lost sight of him, having been told at my visit that he had gone some miles into the country, where, no doubt, he finds the change of air, lodging, and surroundings of much advantage to his weakly condition.

In conclusion, I have only to observe that this case, like many others of the same fever, refused to conform to that rule of limitation as to time which systematic authors speak of in this disease, while there could be no doubt whatever of its nature. Small opiates only were hazarded on account of the degree of bronchitis present; but even these served to illustrate the salutary and beneficent agency of the narcotic, controlling irritability, adding force to the action of the failing heart, and well establishing the medicine's claim to be called, as it has been by Dr. Christison, the "best drug of all."

Nicaragua.—Mr. Carter Blake, lately Secretary of the Anthropological Society of London, has, we learn, left England for Nicaragua, to undertake the superintendence of the Javáli mines in the Chontales district, recently explored by Captain Bedford Pim, R.N. From the importance of the study of Central American archæology and anthropology, and the labours which Mr. Blake has already devoted to the subject, we doubt not that, on his return, numerous interesting and important facts will be added to our existing stock of knowledge. The country is almost entirely unexplored, and as Mr. Blake is provided with a large stock of scientific instruments, it is to be hoped that the present exploration, which will last some years, may be productive of great scientific results.

CASE OF

ULCERATION OF THE DUODENUM AFTER A BURN.

By D. CUTHBERTSON, M.D. Edin.

The following case exhibits a well-marked instance of a secondary lesion after burns, which is doubtless of more frequent occurrence than is generally supposed. That ulceration of the duodenum does sometimes occur after burns has been amply proved in a paper by Mr. Curling, in the 25th volume of the *Medico-Chirurgical Transactions*, in which he records ten cases of such ulceration. That this lesion has not been more frequently noticed may be ascribed to the fact that post-mortem examinations after burns are comparatively rare; and, moreover, the attention of the Profession being seldom drawn to the subject, very many are unaware of the possible occurrence of this lesion, under whose care it is most likely to be overlooked. The following case is a typical example of the lesion:—

G. W., aged 10, was extensively, but not deeply, burnt on the legs and arms by a hot alkaline solution on July 21, 1867, the head, face, and trunk being uninjured. The eschars were dressed with carron oil, and the lad progressed favourably till the morning of August 9, when he began to complain of tenderness over the epigastrium, and passed blood by mouth and bowels. These alarming symptoms appeared about 5 a.m., and continued till I saw him at 10 a.m., when he was ordered two grains of the acetate of lead every two hours, and a sinapism to be applied over the epigastrium. The loss of blood by mouth and bowels, denoting internal hæmorrhage, continued during the day, and he died about 6 p.m. On August 13, I made, by order of the county authority, a post-mortem examination, in conjunction with Dr. Forrest, of Stirling, and Dr. Benny, of Denny. On opening the abdomen, we found in the duodenum, about an inch from the pylorus on the anterior surface, a perforating ulcer one inch long and half an inch broad, and another on the posterior surface about the size of a threepenny-piece. These ulcers being sufficient to account for death, the other organs were not minutely examined; the heart and large vessels were empty, with the exception of a small clot in the right auricle. Death in this very interesting case, no doubt, was due to hæmorrhage occurring in connexion with the perforating ulcers of the duodenum.

It may be of interest to note the following facts on the subject.

Dupuytren was the first to notice congestion of the mucous membrane of the alimentary canal, and of the blood-vessels of the brain and lungs, as occurring after burns; and subsequently Mr. Curling, of London, in the 25th volume of the *Medico-Chirurgical Transactions*, 1842, recorded ten cases in which he had found ulceration of the duodenum after burns. The ulcers, which are generally perforating, are usually found about an inch from the pylorus, and may cause death by peritonitis or by hæmorrhage—in the latter case the arteria pancreatica duodenalis being generally exposed where the duodenum passes in front of the head of the pancreas. Mr. Curling suggests that, the action of the skin being largely interfered with in burns, the glands of Brunner, which abound in the duodenum, may be sympathetically stimulated to increased action, which may lead to congestion and ulceration; and the fact that the ulcers are generally perforating shows that the morbid action begins in glands situated beneath the mucous membrane. As regards treatment but little can be done in the way of cure. Hyd. c. cretâ, with opium, leeches over the affected part, and bland fluid nourishment, have been recommended. In view of the possible occurrence of ulceration, it is wise in all cases of burn to order a bland unstimulating diet, and to secure regular action of the bowels.

It is interesting to note that such ulcers have been known to cicatrise after perforating, as was observed in the case of a girl who died at the London Hospital six weeks after a burn. The fact of the connexion between ulceration of the duodenum and burns has been satisfactorily demonstrated, and such ulcers would no doubt be more frequently observed were the Profession better cognisant of their possible occurrence; and in the treatment of burns the careful Practitioner will do well to bear this complication in mind, and adopt such measures as he may deem preventive.

Stokesley, Yorkshire.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES OF CHOLERA AND CHOLERAIC DIARRHŒA.

From September 4 to 25 inclusive a very large number of cases of diarrhœa have been treated as out patients, chiefly with Dr. Andrew Clark's mixture of dilute sulphuric acid, chloric ether, decoction of logwood, and compound tincture of opium. Only fourteen cases of diarrhœa have been considered sufficiently severe to require admission into the wards, and these have all done well, chiefly with rest and appropriate diet for treatment. In addition to these, however, there have been three cases of cholera, of which brief notes, kindly supplied by Dr. Bathurst Woodman, Acting Resident Medical Officer, are subjoined.

Cholera—Death in Commencing Reaction—Autopsy.

(Under the care of Dr. RAMSKILL.)

Edward F., 47, dock labourer, had been working on board the Rotterdam cargo steamer *Citizen* in the London Docks. Had premonitory diarrhœa on September 11, but continued working till the evening of September 14. From 7 p.m. to a few minutes before midnight, when he was admitted into Dr. Ramskill's ward, he vomited three or four times and had about twelve stools of a rice-water character. His skin was wrinkled, features pinched, eyes sunken, pupils dilated, extremities cold, fingers and lips livid, tongue cold; pulse 80, feeble; respiration laboured, 18 per minute; temperature 97° in axilla. He stated that he passed a little urine in the morning. Ordered simply ice and milk.

September 15.—9 a.m.: Has vomited six times, and had six or seven copious rice-water evacuations In addition to the usual granular *débris* found in such, there were a very few epithelial scales, and one or two casts of the simple tubular follicles. No trace of a fungus could be found with Smith and Beck's $\frac{1}{8}$ object glass. No cramps. At 4.30 p.m. his temperature was 96° only, and at 9 p.m. 96·8°, whilst the pulse had risen to 120. Vomiting and purging continue; voice husky. He is also rather deaf.

16th.—Has slept a little; has passed no urine yet. Temperature (9 a.m.) 96°. 4 p.m.: Temperature 96·8°; pulse 100; respiration 20. Has passed about four ounces of ammoniacal urine, containing about $\frac{1}{20}$th albumen and a good deal of colouring matter, which furnished indigo by action of reagents. The tongue is dry and warm.

17th.—9 a.m.: He is rather comatose; pulse small (100); respiration 20, and laboured; temperature 95°. The last two motions are bile-tinged. At Dr. Sutton's suggestion, Dr. Woodman prescribed quinine in four-grain doses, but the patient only got two doses. Temperature is only 93°; he is rather more drowsy, but answers questions when roused. Has passed coloured fæces in bed.

18th.—9 a.m.: His temperature has fallen to 91° (observed by two persons, with every precaution taken). Tongue still dry; respiration more laboured.

Autopsy by Dr. Sutton.—He died about noon, and at the post-mortem examination his lungs weighed 29¼ oz., and did not fill the chest well, but collapsed considerably; they were considerably emphysematous anteriorly, and on section were of dark-red colour. They contained much pigment, and the minute bronchial tubes contained a good deal of mucus. The heart contained some fluid blood in both sides; the gall-bladder was full of bile; the kidneys displayed stellate venation on surface, which was of a reddish yellow, whilst the medullary portion was of a pale claret colour. The large intestine contained a large quantity of bile-stained green semi-gelatinous substance; the mucous membrane of the ileum was markedly congested in parts; bladder empty.

Cholera—Treatment by the Bromide of Potassium—Recovery.

(Under the care of Dr. SUTTON.)

Henry S., aged 23, residing at 14, Henry-street, White Horse-lane, Stepney. Works at a match factory on Bow-common. Had been ill two days before admission, which took place at 8 a.m., September 19. Temperature in axilla 96°; pulse 80, feeble, and barely countable; general aspect dusky and livid; skin of hands corrugated. Ordered milk, ice, and beef-tea. Severe cramps in extremities. 10 a.m.: Has been vomiting incessantly; pulse 120; respiration 30; temperature 97°. Has passed a rice-water stool in bed. To have ʒj. bromide of potassium immediately, and ten grains every four hours. 8.20 p.m.: Hands still cold and wrinkled; body and feet feel warmer; has not vomited for an hour; breathes tranquilly (20 per minute); pulse 100; temperature 95·8°; lies on his back with his eyes half shut.

September 20.—9 a.m.: Pulse 106; respiration 20; temperature 97·2°. A very faint tinge of colour is found in the fæces, which are still watery. Has passed no urine yet. Evening: Pulse 100; respiration 24; temperature 97°. Vomits occasionally, but less than before. Bowels still loose, but motions bile-tinged.

21st.—Morning: Pulse 100; respiration 24; temperature 98°. Has passed about four ounces of urine, sp. gr. 1018, ammoniacal, containing albumen $\frac{1}{8}$th, and giving pigment reaction, as in former case. Evening: Pulse 80; respiration 18; temperature 98°. Has made a pint of urine, similar to last. Bowels not open since early morning. To stop medicine.

22nd.—Passed a solid stool to-day of good colour. Pulse 80; respiration 18; temperature 98°. From this time convalescence is uninterrupted.

The bromide of potassium has been highly recommended as a remedy by Dr. Begbie.

Case of Cholera—Recovery.

(Under the care of Dr. SUTTON.)

This case was that of a sailor, aged 22, just returned from Colombo. He had been lodging for a week with some German sailors from Rotterdam. He was only ill twenty-four hours before admission. Suffered from colic, vomiting, and cramps. The stools were rice-water. When admitted he was livid and still vomiting, suffering from cramps and constant purging, but there was a faint tinge of colour in the watery stools. Pulse 120; respiration 30; temperature 98°. Ice and milk. About 9 p.m. his pulse could scarcely be counted; tongue and breath cold; voice husky. Pulse 124; respiration 28; temperature 97·3°. Has passed no urine yet. Purging continues.

September 20.—Has vomited all night. Pulse 130; respiration 28; temperature 96°. To take potass. bromid. gr. x. 4tis horis. Evening: Pulse 100; respiration 20; temperature 96°. Has passed about six ounces of urine, sp. gr. 1015, acid, with no albumen, or only a trace, and a good deal of pigment.

21st.—Pulse 98; respiration 20; temperature 98°. Much better; no vomit; no stool; more urine, sp. gr. 1015, with albumen $\frac{1}{8}$th and pigment. Breath and tongue warm. Evening: Pulse 88; respiration 20; temperature 98·6°. Very much better; no more vomiting; has passed a solid stool. Discontinue bromide. From this time he rapidly improved, and is now convalescent.

The patient, who was mentioned as doing well in our last cholera report, quite recovered.

LIGATURE OF EIGHT IMPORTANT ARTERIES.

(Cases under the care of Mr. MAUNDER, Mr. COUPER, and Mr. LITTLE.

At a visit to the Hospital on September 23, there were no less than seven patients in the Hospital in whom eight arteries have recently been ligatured.

Case 1. *Punctured Wound of the Femoral Artery in the Middle of the Thigh.*—The operator (Mr. Maunder) having carried his left forefinger down through the recent wound, felt the lesion in the artery, and held it there while enlarging the wound in the soft parts above and below. The aperture in the artery having been distinctly seen, a ligature was carried round the vessel, both above and below the hole in it, and the bleeding did not recur. The ligatures have come away, and the patient is convalescent. The operation in this case was performed at one of the City banks, where the accident happened. The patient was then removed to the Hospital.

Case 2.—A male, 70 years of age, has been subjected to ligature of his femoral artery, by Mr. Couper, for popliteal aneurism. The ligature separated kindly, but gangrene of the anterior half of the foot slowly arose, and the patient died of exhaustion.

Case 3.—A male, aged 31, under the care of Mr. Couper, was submitted to ligature of the right external iliac artery for femoral aneurism, and is progressing satisfactorily.

Case 4.—A male adult, under the care of Mr. Little, the

subject of popliteal aneurism, had his femoral artery ligatured, and is convalescent.

Case 5.—Male adult, under the care of Dr. Davies and Dr. Sutton, the subject of suspected innominate aneurism, underwent ligature of his subclavian (third part) and common carotid arteries on the 18th by Mr. Maunder. Brasdor's operation was undertaken as a forlorn hope. The patient died. Particulars of this important case will be given in a future report.

Case 6.—Male adult, also under the care of Mr. Maunder, underwent ligature of the right common iliac artery for inguinal aneurism on the 21st—with what result is at present doubtful.

Case 7.—Male adult, the subject of malignant disease of the cheek. Profuse hæmorrhage set in one night, and was only checked by ligature of the common carotid artery, performed by Mr. Little. The ligature has separated kindly.

MEDIAN LITHOTOMY — NO INCONTINENCE OF URINE—RECOVERY.

(Under the care of Mr. MAUNDER.)

CHARLES O., 3 years of age, had shown symptoms of stone during nine months. On September 21, 1866, median lithotomy was performed, and a calculus the size of a nut extracted. From the moment of the operation, the whole of the urine passed by the natural channel. There was no incontinence of urine whatever. Mr. Maunder is in the habit of performing both the lateral and the median operation—the lateral when either the stone or the prostate or both are large, that he may have plenty of room for extraction; the median when opposite conditions exist. There is one fact connected with the median operation which induces him to prefer that method—the possibility that his patient may have no incontinence of urine, but a dry and wholesome bed throughout the period necessary to convalescence. Mr. Maunder thinks this not infrequent immunity from incontinence should have more weight than it probably has with Surgeons when selecting a method of operation.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 28, 1867.

NINTH REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

Mr. SIMON'S Annual Report is always interesting, not only on account of the matter contributed by himself in the way of a general exposition of the doings of his department, but for the valuable papers which are usually appended, giving the results of special investigations by his very able assistants into the pathology of disease, the rise and progress of epidemics, or other subjects more or less connected with the public health.

The presence of epidemic cholera in East London and elsewhere during the last year gave an opportunity not to be lost for attempting to solve at least some of the many questions which have arisen as to the nature, habits, and proper mode of treatment of the disease; and to this end Mr. Simon organised a series of independent investigations, which were committed to the charge of men skilled in the subjects with which they had to deal. The results of these investigations, with Mr. Simon's comments thereon, are now before us in a bulky octavo, which is entitled to as ample a notice from us as is consistent with other claims on our space.

The subjects treated in the Report may be grouped into two divisions. The first relates to the ordinary proceedings of the department during last year under the Public Health Act of 1858, in reference to vaccination, to the systematic general inquiries into the distribution of disease and the effects of sanitary improvements, and to such occasional local inquiries as were found to be necessary in the interests of the public health. The second division relates exclusively to cholera, and describes the rise and progress of the epidemic of last year, as well as the results of the special scientific investigations to which we have referred.

The National Vaccine Establishment issued 207,014 charges of lymph during the year, and the total number of vaccinations performed was 14,319 (including 372 revaccinations). In the preceding year the total vaccinations amounted to 14,648. Mr. Simon discusses at some length the grounds upon which Parliament in 1866 commenced experimentally the course of subsidising public vaccination by empowering the Lords of the Council to distribute among public vaccinators who show particular merit in conducting vaccination a grant of money voted for this purpose. The principle of "payment by results" was adopted as the most satisfactory solution of the points at issue between the vaccinators (who complained of insufficient remuneration), the local authorities (whose regards were for the pockets of the ratepayers), and the public (whose interest it was that the protective influence of vaccination should be extended to its utmost limits). Allowing the contract rates to remain, as heretofore, to be adjusted between guardians and Medical Practitioners—subject, however, to the actual statutory provision of a minimum—the contractor who exerts himself with zeal both to optimise the quality and also to maximise the quantity of local vaccinations will receive such extra remuneration as may be awarded by the Privy Council. The launching of the new scheme was delayed until the end of 1866 by the pressure on the office of work arising out of the cholera epidemic, and Mr. Simon has therefore nothing yet to report of its working, but he expresses a very sanguine hope and belief that it will be found very importantly conducive to the objects for which it was established. The following is the mode of action which has been adopted:—

"For the purposes of the inspection of public vaccination (including the purpose of administering this grant), the whole of England and Wales has been divided into four districts, each with its inspector. Two of the inspectors began from October 1 to make their recommendations as to gratuities, and a third from December 1, but the fourth only from the first day of the present year (1867). It is anticipated that each inspector will be able to complete the inspection of the public vaccination of his district once in every two years; and as he makes the successive steps of this inspection in the several unions or parishes of his district, he reports in succession as to the vaccinators. The adjudications of the Privy Council on these reports are monthly, and from the above described distribution of work, each award, as a rule, will be biennial for the district to which it relates. Grants are recommended to public vaccinators whose work has been good both in quality and in quantity; and provisionally, two grades of rewardable merit have been recognised—one to receive the whole, the other to receive two-thirds, of the sum permitted by Parliament."

In the very elaborate investigation (entrusted in 1865-66 to the competent care of Dr. Buchanan) of the results which have hitherto been gained in various parts of England and Wales by drainage works and other sanitary regulations designed to promote the public health, we see an example of one of the most important functions which a properly constituted department of public health would exercise. The Privy Council, by filling the void which in this respect has hitherto been suffered to exist in our domestic polity, has exercised

sound judgment, and given proof of its fitness to be entrusted with powers more comprehensive and more effective. Mr. Simon speaks of our modern works of town drainage and water supply as "great popular experiments in the management of the public health—experiments, it is true, which Medical science could not deem of doubtful promise; but not the less—to the popular mind—experiments which must be judged by their actual fruits."

It was desirable, therefore, in order to establish the case of the advocates of sanitary improvement, to institute such an inquiry as would show how far these "experiments" had been fairly successful; and twenty-five towns, containing an aggregate population of more than 600,000 persons (selected after consultation with the Local Government Act Office, as being places where structural sanitary works had been most thoroughly done and had been longest in operation) were visited by Dr. Buchanan, who has described with patient detail the nature of the "experiments," with their results as apparent in the mortality statistics of the several towns.

It is of course impossible for us to go into the details of Dr. Buchanan's most elaborate and in every way admirable report. We must be content to state the general conclusions at which he has arrived, advising our readers by all means to take an early opportunity of studying his report *in extenso*.

The towns visited range in size from small places of 3000 or 4000 inhabitants to a maximum of 160,000; and for these towns the mortality statistics of the past twenty years have been carefully investigated with attention to a variety of points necessary to add to the trustworthiness of deductions from them. The observations embrace 300,000 deaths, which have mostly been analysed in the actual registers of the towns. Comparison is made between the mortality before the execution of the sanitary works, and the mortality while they were in progress and after their completion, and reference has been had to particular ages and to particular diseases as well as to the total deaths. No source of information of equal accuracy and completeness with these mortality statistics being available, Dr. Buchanan has relied almost exclusively upon them in judging of alterations in the public health, although he is well aware that this method has certain imperfections; but the experience of Medical men and other local sanitarians was appealed to whenever necessary.

As regards the total death-rate, there has been a distinct reduction in the great majority of the twenty-five towns. In nine of them the reduction amounted to about a fifth part of the mortality, in eleven other towns the reduction was less considerable, in three or four towns (including one that has scarcely finished its works) the rate has been stationary, and one shows an increase. Dr. Buchanan remarks that the relative position of the towns is in some cases affected by an excessive mortality in the pre-sanitary period; in others, by changes in the social or industrial condition of the inhabitants; and in others, by the short time which has elapsed since the improvements were made. "These considerations," he says, "require to be plainly kept in view, if a judgment of the relative value of sanitary measures in various towns is to be obtained." Dealing next with particular death-rates, Dr. Buchanan found that the deaths of infants (under 1 year of age) have been reduced very much in the same proportion as the total mortality at all ages in the several towns, the reduction having been greatest where the previous mortality among infants was excessive; of special influence, either in amount or kind, exerted by sanitary works on the health of infants, differing from that exerted upon the total population, no evidence whatever was obtained.

With regard to certain contagious diseases, Dr. Buchanan remarks that "the time has not yet arrived for forming an accurate estimate of the effect of works of sewerage, water supply, and the like, upon measles, scarlatina, and hooping-cough, inasmuch as epidemics of these diseases may revolve in long periods;" nevertheless, there seems to be a tolerably marked relation between overcrowding of the population and the prevalence of these three forms of disease, which should be noted and carefully watched. Croup and diphtheria have both increased in prevalence in the towns, chiefly since the completion of drainage works. And this too is a very instructive fact, if it be considered impartially, as raising a doubt whether the essentials of a perfect system of drainage are always provided for. A reduction of typhoid fever is undoubtedly shown coincident with sanitary improvements. "Though not with absolute constancy, drying of the soil of a town and reduction in the crowding of houses have been followed by reduction of fever. Much more important appears to be the substitution of an ample supply of good water for a scanty and impure supply. . . . It is, however, the purification of atmosphere from decomposing organic matters that has been most uniformly followed by a fall in the prevalence of typhoid; and this has occurred equally whether the purification has been brought about by the abolition of cesspools or by draining and drying middens." The relation between organic impurity of the air and the prevalence of typhoid was, in fact, found to be constant and universal in all the towns under consideration.

The majority of the towns exhibit for diarrhœa a movement resembling that of typhoid, but there are obvious differences which make it probable that other influences than those affecting fever have operated on the prevalence of epidemic diarrhœa. "Cholera epidemics appear to have been rendered practically harmless in the towns examined." Diseases of the lungs (other than phthisis) have undergone no regular reduction in their amount in the several towns; but, as regards phthisis, Dr. Buchanan's researches have led to most important conclusions, which are thus summed up by Mr. Simon:

"These facts appear to indicate a partial dependence of pulmonary phthisis on some of the unwholesome conditions which have been removed; and when detailed examination is made of the cases which give that indication, and they are compared with the different class where phthisis has not lessened its amount, the novel and most important conclusion suggests itself that the drying of soil, which has in most cases accompanied the laying of main sewers in the improved towns, has led to the diminution, more or less considerable, of phthisis. The facts which are yet in evidence seem most strongly to support this conclusion, which, should it be substantiated, will constitute a very valuable discovery evolved by Dr. Buchanan from the inquiries here reported on. . . . . It will be seen that the reduction of phthisis, where certain works have been executed, is far too large and far too general to be regarded as an accidental coincidence. And the fact that in some of these cases the diminished fatality of phthisis is by far the largest amendment, if not the only one, which has taken place in the local health, becomes extremely interesting and significant, when the circumstance is remembered that works of sewerage, by which the drying of soil is effected, must always of necessity precede, and sometimes indeed precedes by years, the accomplishment of other objects (house-drainage, abolition of cesspools, and so forth) on which the cessation of various other diseases is dependent."

Mr. Simon adds that so important has he deemed these indications elicited by Dr. Buchanan to be, that by his advice the Privy Council has directed further inquiries to be made on the subject. Reviewing Dr. Buchanan's inquiry as a whole with reference to the objects for which it was undertaken, Mr. Simon considers that it has been very fairly successful, even though the results elicited are not in all cases equally intelligible, nor in all cases equally satisfactory. But on the whole they are such as can be well understood by all who will somewhat carefully consider them, and such as deserve to be well pondered by the local authorities of the country. If hereafter other inquiries of the same sort are made, the investigator will have the advantage that the quality of the rough material of Medical statistics is always in course of improvement. And as the evidence of longer periods is collected apparent exceptions become fewer, and the results admit of far simpler exposition than is necessary when the meaning of the evidence is more doubtful.

"Meanwhile, however, the present records may fulfil very important provisional uses, not only to confute persons who have despaired, or affected to despair, of any great preventibility of disease, but still more to justify in the public eye, and to encourage in some of the noblest of human labours, those who, for long weary years, have been spending their powers in this endeavour, and to whom surely it will be the best of rewards to see demonstration of the good they have wrought.

Mr. Simon refers to the passing of the Sanitary Act of 1866 as the beginning of a new era in the progress of sanitary reform, and sums up its broad effect as bringing, for the most part, within control of the law influences which have hitherto been causing about a quarter of our total mortality.

The remaining parts of the Report, relating exclusively to cholera, we shall analyse on an early occasion.

THE ABYSSINIAN HOSPITAL SHIPS.

Amid the many preparations in which our local and Indian authorities are now engaged, there is no department which demands more careful attention, or in which the public interest is more thoroughly vested, than that of the Hospital accommodation for our suffering soldiery in the intended expedition. The question of Hospital ships is one fraught with grave considerations, and it is one, too, which in the present advanced state of hygiene our Profession feels it to be its duty to discuss earnestly and thoroughly. If, therefore, we desire to bring it immediately under the notice of our readers, we do so from the conscientious conviction that it is a subject which merits a full and impartial investigation on the part of thoughtful Medical men.

To correct the false impressions which some of our contemporaries may have excited, we lay before our readers a sketch of the arrangements now being carried out under the energetic superintendence of Dr. Massey. The three vessels which are being fitted out here for the accommodation of the sick troops are the *Golden Fleece*, 2768 tons, the *Queen of the South*, 2226 tons, and the *Mauritius*, 2135 tons, all iron vessels, "propelled" by steam and sails, and now lying in the tidal basin of the Victoria Docks. They are all well-tried and well-built ships, and bid fair to be the most successful naval hospitals yet fitted out. In describing the arrangements it will be as well to speak of the decks by the terms used in passenger ships. The upper, or first, deck of each, then, is without poop, and is devoted to the exercise of convalescents. The upper passenger deck and lower passenger deck (the one below it) both constitute the wards. These decks, except in one instance (the lower passenger deck of the *Queen of the South*, if we remember rightly), are not flush from stem to stern, but are, as is common in iron ships, divided into compartments of large superficial area. In all cases the height of the 'tween-decks is considerably above seven feet, reaching in some instances to more than eight feet. In no instance, however, do we find the lofty 'tween-decks of the "American liners," as they are termed, which in some instances are more than nine feet from deck to deck. The hatchways are in all cases wide, and will almost invariably be kept open, and a very fair amount of light is admitted by the skylights and the numerous side-ports which the vessels possess. The ports are, it must be confessed, small, but the great height of the ships above water will admit of their being almost always kept open, and, in addition, they are far more numerous than in ordinary merchant ships.

Let us take the *Golden Fleece* as a type of these vessels. On the upper deck are placed the closets, urinals, sinks, lavatories, bakehouse, washing and mangling-room, and drying-room. These are all excellent in character. The closets are placed forward, and are of the latrine class, and are so constructed that it will be almost impossible for excrementitious matter to remain attached to them. They are not provided with cisterns, but are intended to be flushed out four or five times a day, or oftener if necessary, by the donkey-engine. The lavatories contain every necessary accommodation for the cleanliness of the men, the urinals are also well constructed, and the bakehouse, cook's galley, etc., are as well arranged and supplied as it is possible to desire. This deck will be covered with a double awning of canvas, and is, as we have said, the place where the convalescent may take air and exercise.

The upper passenger deck and saloon for the officers comes next in order of descent. This deck constitutes the wards, and demands, therefore, more attention than the preceding one. Here we note that everything which could possibly block up space or impede the passage of air currents has been scrupulously removed. The cots in which the patients will be placed are constructed of iron and canvas, and seem both light and convenient. Each one swings on pivots placed at the ends, and supported by two vertical posts running from deck to deck. They can be permitted to swing, or may be fixed at will, and above each of them is placed a rope, by which the invalid may lift himself from his bed. There are also various contrivances for affording support to the patient in different positions. These cots measure six feet three inches long, by two feet three inches wide—a very fair allowance when it is remembered that emigrant passengers are allowed but eighteen inches width of berth. A very important point in connexion with the arrangement of these cots is now to be noted. Unlike the berths in ships, they are placed in but one tier, and thus each patient has the benefit of all the air above his cot, and being placed at a height of only about two feet and a half above the floor, he is not compelled to breathe the warm atmosphere which accumulates in the upper portion of the 'tween-decks. We observe, too, that in each case the cot is placed at a considerable distance from the ship's side, by which means both draught and heat are avoided. The lateral space is not a fixed one; but it is always ample, and the actual allowance of cubic space to each berth, supposing even the accessory hammocks to be slung over the tables, will be from 332 to 350 cubic feet. In general, however, it will amount to 400 cubic feet. In each cot is placed a mattress, of four inches and a half deep, and stuffed with the best curled hair. Many of the cots are specially arranged with canvas slips for dysenteric patients, and a certain number (from four to six for each ship) are specially contrived for cases of fracture, the centre being fitted with an india-rubber plug, for which a bed-pan can be substituted, after the plan of Mr. Alderman's invalid couch. In regard to the chamber pots and bed-pans for use in the Hospital, an ingenious device is adopted. The places in which these are kept for use are so contrived that the vessels must be turned upside down before being put there. This at once prevents the negligence of orderlies. The moment a vessel has been used the orderly must take it on deck, empty it into the sink, and wash it before returning it to its proper position. There are two water-closets in the wards, situated as near a hatchway as possible, and amply ventilated; these, we believe, are only to be used at night. The water is supplied by a tap within reach of the orderlies, but cannot be drawn by the patients. Besides a large quantity of water taken on board, the ships are provided with distilling apparatus capable of producing 1500 gallons a day each. This water is filtered in passing through the machine, and is purer than, and quite as fresh and pleasant as, the water supplied by the London companies In case the "ship's water" should be used, there are eight charcoal filters in each vessel by which it can be purified. The dispensary and operation-room is as near "midships" as possible, and is in each case large, roomy, and well-lighted, and is to be fully fitted up by Messrs. Savory and Moore. The bath-room contains two large baths and ten shower-baths, and is supplemented by numerous portable baths of large size.

The ventilation of these vessels is, we have little hesitation in saying, the most perfect which has ever been employed on board ship—indeed, the question arises whether there is not

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too much ventilation. In the ships fitted out for emigrants under the Government emigration, Dr. Edmonds's system of ventilation by the steam jet vacuum is alone adopted, and each emigrant gets only 90 cubic feet of space. Here each patient receives about 400 cubic feet of space, and, in addition to the ventilating apparatus of Dr. Edmonds (which some sanitarians consider sufficient), has the ventilation proceeding from constantly open hatches, constantly open ports, and two special provisions suggested by Dr. Massey. These latter embrace a series of tubes of large calibre and of traps. The tubes are of iron, and exceed a foot in diameter. They are provided above (upper deck) with funnels, and below they do not quite reach the floor; at the top, about eight inches from the upper deck, they are perforated with apertures. When the funnels of these are turned towards the wind, they will act as powerful inlets, and when from the wind as equally efficient out-takes. The traps are apertures about one foot long by five inches wide, and are cut in the deck above, and provided with covers by which they may be closed or opened to any required degree. Upon a rough calculation we may state that there are about eight of these funnel tubes and fifteen traps, besides Edmonds's tubes, the ports, and the hatches, for every fifty or sixty men. It is computed that there will be at least a hundred square inches of aperture for each man, but this is considerably below the mark. We are speaking of the ventilation of the upper passenger decks. The lower passenger decks, having less hatchway ventilation, have more of these tubes and traps, and are thus as well provided for. Altogether we may say that the provision for ventilation is such as we have never seen attempted before, and we shall be much surprised if it is not found to be productive of good results.

The cabins for sick officers open upon passages which lead to the saloon. Each of these is intended for two patients, and is ventilated both by ports and by apertures opening upon the saloon. A water-closet is placed between every two cabins, and is well ventilated. On the whole, however, we think the men have the advantage over the officers, both in respect of space and air-supply. The quantity of Medical comforts and disinfectants to be taken on board will, in our opinion, meet the wants of the case. Of course it remains to be seen how the various hygienic provisions we have described will act in a climate like that of the Red Sea. The authorities, however, have determined to put the matter fully to the test. Each ship will carry a Surgeon specially trained at the Netley School, and supplied with anemometers and all the other instruments necessary for ascertaining with precision the value of the contrivances used for ventilation. The Surgeons in charge of the ships will be: for the *Mauritius*, Staff-Surgeon Woodward; for the *Queen of the South*, Staff-Surgeon Charters; and for the *Golden Fleece*, Staff-Surgeon Roch.

While, then, we cannot but think that in carrying out the hygienic arrangements of these ships Dr. Massey has shown an earnestness of purpose, a practical knowledge, and a scientific acumen creditable in the highest degree to his reputation and his office, we are bound to inquire why the Admiralty was forced to contract for private vessels. With ships at its disposal like the *Miami*, which now lies condemned in the Medway, and which would give a cubic space of over 1060 feet to each individual, we may fairly ask why £54,000 are spent in bargain with a company. Is there an honest reason for this? If so, let it be forthcoming. The public has certainly the right to demand an explanation from the Admiralty. "Circumlocution" has had its day, and the officialism which in discharging a grave public duty selects the more unsatisfactory of two alternatives, and the one which involves an extravagant expenditure of public funds, must be compelled to give an account of its stewardship.

Medical Charities.—The late Mrs. Sarah Pughe, of Vale Royal, Tunbridge Wells, has left £200 to the Kent County Hospital, and Miss Elinor Grierson has bequeathed legacies of £100 each to the Liverpool Dispensaries and Infirmary.

THE INOCULATION OF PHTHISICAL SPUTA AS AN AID TO DIAGNOSIS.

At the last meeting of the Medical and Chirurgical Society, a paper was read by Dr. Marcet on the above subject, which, to our mind, is extremely suggestive. This gentleman, whose accurate and scientific investigations are already well known to the Profession, was, at the time when the inoculation of tubercle began to be much talked of, engaged in certain researches connected with sputa. It struck him that, as the sputa of phthisical patients usually contain tubercle, these might be introduced into an animal, and it might thus be ascertained whether or not the tubercle would be propagated. He performed the experiment, and cheesy masses were produced in various parts of the animals experimented on. So far so good; but, not satisfied with this result, Dr. Marcet sought to ascertain whether he might not effect the same changes by means of tubercular matter taken at an earlier stage. He accordingly introduced below the skin of a guinea-pig some blood from the body of a patient who had died of phthisis. Again the cheesy masses appeared in the animal experimented on. Still further, however, for he next tried the effects of fluid from an empyema; this time, also, cheesy matters were found. Dr. Marcet proposes this plan of inoculating animals with sputa for the purpose of ascertaining if tubercle actually exists in the lungs of a patient, or if tubercle has ceased to be formed after it has been known to exist.

His experiments are of great value, though not, we think, in the way he wishes to utilise them. Let us see if they will not bear another application, and, as matters stand, probably a far more important one. We have already entered our protest against the universal application of the term *tubercle* to all sorts of substances in the lungs and other organs. We would limit the term entirely to the grey granulations met with along the cerebral arteries and in the serous membranes of the peritoneum and pleura. The cheesy masses so often encountered are not tubercles—they originate in quite a different way. What has Dr. Marcet done? What has Dr. Andrew Clark done? They have introduced pus into the blood—in other words, induced artificial pyæmia—and the result has been caseous pneumonia: that is, the cellular product of the inflammation of the lungs (or other organ) has rapidly undergone fatty degeneration. But in Dr. Marcet's cases these masses are detected not only in the lungs, but also in the liver, spleen, kidneys, and mesenteric glands. Surely we cannot call these masses of dead degenerated matter the results of *caseous pneumonia* also, occurring as they do in organs altogether distinct from the lungs both in structure and in function? Are we to conclude that this effete, worn-out substance—dead we may well call it—which, under proper conditions, may for years and years remain dormant in the system, yea, may disappear and leave little or no trace behind, contains within itself such a virulent poison that, when introduced into the system of a healthy animal, it straightway reproduces immense quantities of matter similar to itself? This we might do, provided nothing else would give rise to similar results; but when blood and purulent matter do so, we begin to have our eyes opened, and to see more clearly than before. We have said that in at least one of Dr. Marcet's cases the so-called tubercle was produced by inducing artificial pyæmia; so also in Dr. Andrew Clark's experiments. Now, if we are to accept the most recent views, the local consequences of pyæmia (we have nothing to do with its general effects) are produced, according to Virchow, by the breaking down of fibrinous clots, the circulation of this disintegrated matter with the blood, the choking up of minute arteries, and the consequent destruction of the surrounding tissues. In his most excellent article on Pyæmia in the first volume of Russell Reynolds's "System of Medicine," Dr. Bristowe admits that the more general symptoms of pyæmia may be produced by the fluid portion of the pus coming from

the point where the disease originates, but maintains that the pus corpuscles have to do with the formation of local abscesses, if we may call them so, as well as the disintegrated fibrine of Virchow—nay, more, he distinctly says pus may produce cheesy masses in the lungs in the very same way as it gives rise to purulent deposits. If, then, pus acts in this way, becoming arrested in the pulmonary and other capillaries, and giving rise to caseous formations merely by stopping up the vessels, and altogether apart from any specific virus, need we be surprised that roughly broken-up tubercular masses, mixed with a little water and introduced into a wound, will act in the same way? Are we to accept specific properties for this dead degenerate body when the best authorities admit that this specificity is not necessary to account for the changes following pyæmia? Surely not. We are not prepared to maintain that the cheesy masses so often spoken of as tubercular are the results of pyæmia; but we certainly hold that there is much similarity between the processes whereby they and the so-called secondary abscesses of pyæmia are produced. Pus or cheesy matter introduced into the blood of an otherwise healthy animal gives rise to caseous pneumonia, and similar productions of morbid material in the liver, spleen, kidneys, and mesenteric glands. Pus introduced into the veins of a man weakened by previous disease, and at the moment suffering from local inflammation of an unhealthy sort, gives rise to collections of matter, be they purulent or no, in exactly the same organs—the lungs, the liver, the spleen, and the kidneys. Is the difference between these results one of kind, or is it merely one of degree? In both cases we have congestion, with rapid proliferation of cells, and consequent degeneration; in the one case in a healthy animal, in the other in a broken-down man. There is not much histological distinction between a degenerate mass called tubercular removed from any organ in the body and the change which pus would sometimes appear to undergo when its fluid portion has been absorbed and the solid part for some time retained in the system. The more intimate relations of the two conditions we leave to others to investigate, but we think we have said enough to show the absurdity of much that has been said about the inoculation of tubercle. In this way we look upon Dr. Marcet's results as of very great value, not exactly in the fashion he would indicate to us; but, conducted by a man of so good a reputation for correctness, they are not likely to be impugned. Dr. Marcet may draw what conclusions he may like from these results. Surely we shall be allowed the same privilege?

THE WEEK.

TOPICS OF THE DAY.

The Coroner's Court is a venerable institution, but it is not a satisfactory one. In theory it is excellent, but in practice it is undoubtedly the worst conducted of our law courts. Of late complaints have been rife against coroners and their juries. A charge was preferred in the *Times* of Saturday last against the Lincoln County Coroner for postponing an inquest under circumstances which rendered it most desirable for the survivors that the inquiry should have taken place at once. The body of a young woman was left to decompose in a room occupied by her father, mother, and six brothers and sisters, the dimensions of which were 13 feet by 9 feet, from early on Saturday morning until Monday, because the Coroner, having company, could not attend. This, however, to the public is comparatively an unimportant matter—only affecting the sensibilities, and probably the health, of a few poor people—compared with the absolutely false verdicts which coroners' juries sometimes deliver and coroners accept. For instance, only recently a woman at Bungay was killed by the application of a drachm of morphia to an open cancerous sore. A druggist of the town—in ignorance, no doubt—applied the poison, the effects of which were rapidly established, and, despite the efforts of three Medical men, she died in a few hours. Of a clearer case of poisoning by the absorption of morphia we never read. And yet the local paper states that "the Coroner briefly commented on the evidence, and the jury returned a verdict of 'Death from natural causes!'"

Queen's College, Birmingham, is, we hope, fairly started, by an Act of Parliament which received the Royal assent in August last, on a new career of usefulness both as a place of general and of Medical education. A new President and Council are to be appointed by the votes of life governors, who are to be donors of a certain sum to the funds of the College. The officers, professors, and tutors are to be chosen by the Council. Queen's Hospital is to be freed from its former connexion with the College, but is to be retained as a place of clinical teaching, and hopes are entertained of eventually affiliating the College to the University of Oxford. The debts of the institution are to be paid; but it is expected that this will be done, in a great measure at least, by the subscriptions of the Birmingham people. The debts of the College amount to about £6000, whilst it possesses a freehold site and buildings, and £12,000 in Great Western Preference Stock. Assuredly Birmingham ought to be able to support such a place of education. Its population and wealth must be far greater than those of all the University towns of the three kingdoms, at the time of foundation of their respective Universities, put together.

The Howard Association, "a philanthropic society for the promotion of the best methods of penal treatment and criminal prevention," has recently circulated statements in reference to the treatment of convicts in Western Australia, which, if true, demand the immediate interference of Government. Gross cruelties, in the way of flogging, etc., are said to be perpetrated, and the laws regulating the treatment of prisoners are alleged to be broken with impunity by the officials. The account given in the memorial sent by the convicts to the Howard Association might furnish the author of "Hard Cash" with material for another novel. The whole matter will no doubt be brought before Parliament in its next session.

The Social Science Congress at Belfast seems hitherto to have been principally occupied with matters of law, education, and religious polity. The meeting appears to have taken its tone in a great measure from the place where it was held, and the grievances and wants, or supposed wants, of Ireland are an inexhaustible topic.

The country is threatened with a meeting of Parliament in November for the purpose of voting supplies for the Abyssinian war. We are glad to see it stated that a heavy rainstorm on August 20 filled the Aden tanks, which are capable of holding 8,000,000 gallons of water. This is a most fortunate occurrence for the expedition. At the instance of Sir Roderick Murchison, the Government, it is said, have determined to send with the army a geographer, a geologist, and a naturalist.

Sir Roderick Murchison announces the arrival at the mouth of the Zambesi of the expedition sent out by the Admiralty to ascertain the fate of Dr. Livingstone. The leader of the expedition, Mr. Young, expects to have completed his search, and to be at the Cape, by December 1.

The Calendar of the Royal College of Surgeons, of which we elsewhere publish an abstract, seems to prove two things—that the special Midwifery Diploma is not likely, as years go on, to attract many candidates or to add much to the College funds: and, secondly, that the attempt to affiliate the great body of Dentists to the Profession of Medicine has completely failed. We shall be curious to see what may be the next plan for increasing receipts which the ingenuity of the Council may discover. The Calendar appears to be a carefully compiled document, and reflects credit on the College officials.

CHOLERA AT MALTA.

The reappearance of cholera at Malta this year fully verifies the anticipations which we have already expressed. So far as the troops are concerned, it has been limited to the 1st battalion of the 14th Regiment, which had recently arrived in the island from Ireland. The regiment was quartered in the Pembroke Camp Barracks, and on the appearance of the disease was moved out into camp. The portability of the *materies morbi* of cholera has received additional testimony—if such be required—from this move, as, although the disease for three days appeared to have been checked, five cases, all speedily fatal, afterwards occurred. On the 14th inst. the regiment was removed to the neighbouring island of Gozo, and it is hoped that thereby the disease may have been shaken off. The fact that the other regiments in the island are so far free from the disease, strongly indicates the probability of the existence of structural defects in the Pembroke Camp Barracks. Dr. Sutherland, in his report, describes these barracks as being situated on high ground and well exposed to the sea breeze; but all the buildings are constructed of the porous sandstone of which the island is composed, and the drains, being of the same material, are by no means safe. The first outbreak of cholera in 1865 was apparently connected with this circumstance. There can be no doubt that all the sanitary defects so fully reported on by Dr. Sutherland ought to be remedied; but the fact still remains that, although cholera and other epidemic diseases are more virulent in places where such defects exist, something more than these is necessary for their production. All modern physiological science points to the truth of the doctrine that the cholera virus can no more have a spontaneous origin than can any other organic product. If sanitary defects alone be a sufficient cause for its development, we should never be free from it; and in this lies the great danger of the tendency which sanitary enthusiasts evince to insist that it is in the power of their science entirely to abolish all causes of death except old age and accidents. Fort Manod, which escaped the visitation of cholera in 1865, notwithstanding, as Dr. Sutherland remarks, that it is "close to, and overlooks, the quarantine establishment," has not been so fortunate this year; one fatal case has already occurred among the men of the 14th Regiment who are quartered there.

THE MERCANTILE NAVY.

It will have been seen from the various summaries of the new Merchant Shipping Bill which have recently appeared that most of the amendments suggested by Dr. Domett Stone in his numerous communications to the *Times* have been adopted, as we prognosticated they would so long ago as January 26. There is, however, much yet to be effected towards improving the hygienic condition of our merchant seamen, and we are therefore glad to see that Dr. Stone has already drawn the attention of Government to some shortcomings of the Act, in a letter which appeared in the *Times* on the 17th inst. Amongst other improvements, he urges that water should be carried in iron tanks instead of wooden casks, and suggests the more frequent use of a distilling apparatus. The importance of an extension of the Contagious Diseases Act, he very justly says, cannot be over-estimated. As regards provisions, Dr. Stone advises, and with great force, that as preserved potatoes contain "all the antiscorbutic properties of the fresh potato," it should be held obligatory on owners and masters of vessels to supply their ship's companies with an occasional ration of this vegetable, which, we are aware, is admitted by all competent authorities, and by those who have studied the question in an impartial spirit, to be a real preventive of scurvy, lime-juice being considered, as asserted by the writer of an article in *Fraser*, "only the antidote to a poisonous diet." It is well known that, as stated in a leading article in the *Times* of January 21, "where the diet is wholesome lime-juice is not required, and, though a most useful reserve against emergency, is in good ships not considered a necessary article of diet. The American merchantmen," the writer goes on to say, "rather despise the resource, and rely upon good diet for the non-appearance of the disease." We draw attention to these facts, not with a view to undervalue the efficacy of lime or lemon juice, but simply in order that it should not be looked upon as if it were the only antiscorbutic with which we are acquainted, and consequently a *sine quâ non*. In further proof of this we would reiterate what has been mentioned by Dr. Domett Stone, on the authority of the Consuls at Bordeaux and Cronstadt—viz., that in the French and Prussian imperial and mercantile navies there are no regulations, rules, or established customs for the prevention of scurvy, because, owing to the general use of the common acidulated wine of France as a drink for seamen, the disease is scarcely known. We may here remark that it is with some pleasure we have heard that Government has ordered a quantity of light wine and beer to be exported to Abyssinia. In the event of the campaign being a lengthened one—which is not at all improbable—we would recommend that a supply of preserved potato should also be sent out; limejuice should likewise be forwarded, to be given in case of absolute need, but still not to substitute it for vegetable diet. If due attention be given to these simple precautions, the mortality from *scurvy* will be *nil*, which, the nation knows to its cost, was not the case during the Russian war.

THE ROYAL NAVAL HOSPITAL, HAULBOWLINE.

This Hospital was visited on Saturday, the 7th inst., by a Board of Admiralty, consisting of the Right Hon. H. T. L. Corry and Admiral Sir Alex. Milne. The visitors, after making a thorough inspection of the Hospital, expressed their satisfaction with the improvements which had been made during the past year. Up to a recent period the Hospital possessed neither baths nor operating room. Thanks to the perseverance and energetic representations of Deputy-Inspector Loney, the Medical superintendent, three handsome slate baths have been erected, and by the removal of the Dispensary from the centre of the Hospital to a more convenient position, room has been obtained for an operating theatre. Haulbowline is the only Royal Naval Hospital in Ireland; and we believe it to be the only home Hospital which boasts a Deputy-Inspector's appointment. It would be well for the service were it otherwise. Were a Deputy-Inspector appointed to all Hospitals at home and abroad, a greater number of prizes would be within the grasp of deserving officers, and the attractions of the service would in proportion be increased.

HORSE-FLESH.

A correspondent, who dates from Paris, speaks of the increased use of horse-flesh in that city as a fact worth noting. He says:—"In passing along the quays on my way to the Marseilles Railway Station, I was struck with the number of stalls bearing the title *boucherie hippophagique*, and, being desirous of making a personal examination of the meat, I begged my Parisian friends to direct me to one of the largest and best establishments of the kind. I was advised to visit one in the quarter 'la Villette,' and soon found myself in the Maison Lébert et Leroy, a copy of whose card I enclose: 'Boucherie de viande de cheval autorisée par le gouvernement, 12 rue de Flandre à la Villette; spécialité de saucissons en tous genres; filets et faux-filets rosbif. Vérifiée, estampillée par le vétérinaire de l'administration.' The place was a nice clean-looking butcher's shop, and, if one had not known it beforehand, the flanks of meat which hung from hooks in the middle of the shop, and the smaller joints and steaks arranged on the counters, might easily have been mistaken for small lean second-rate beef. The attendant was very civil, let me

examine everything, and told me that they usually sold at the rate of two horses a day. There was no difficulty in believing this, for customers kept dropping in, each of whom carried off some portion of the meat. Prices were high, ranging from one franc the half-kilogramme for the *filet*, and seventy-five centimes for the *faux-filets*, to twenty centimes for the brisket and tendon. Some of the customers assured me that the meat was better than beef. I may add that on a side table there were bottles of horse-marrow pomade, quite as efficacious, no doubt, as bear's grease. I bought a tongue, which I have tasted and found very good."

THE MCWILLIAM TESTIMONIAL FUND.

We have received the report of the Sub-committee which was formed in July, 1862, to co-operate with a Committee of the Medical Officers of the Navy in raising a fund amongst the Profession for the widow and children of the late Dr. McWilliam, the hero of the Niger Expedition, and the indefatigable Secretary of the Epidemiological Society. Drs. Waller Lewis and Gavin Milroy, whose names are affixed to the report, state that the sum of £1239 15s. 6d. has been raised, of which £800 were contributed by the Medical Officers of the Navy. Of this sum £1200 have been invested in the names of three trustees—viz., Mrs. McWilliam, Dr. Graham, R.N., and Dr. Waller Lewis—for the benefit of Dr. McWilliam's family; £14 14s. have been expended in a medallion portrait, which is placed in the Royal College of Physicians; £16 have been paid for 100 copies of an excellent photograph of Dr. McWilliam by Mr. Ernest Edwards; and the remainder has been spent in the necessary expenses of printing, postage, etc. We think that the subscribers have great reason to be satisfied with the very wise and prudent administration of the fund above detailed, and that their thanks are due to the Committee and Sub-committee for their careful management in the matter. Mr. Edwards's photograph is excellent both as a likeness and as a work of art, and is a valuable memento of a singularly brave, talented, and enterprising Physician.

MR. CHADWICK'S CANDIDATURE FOR THE REPRESENTATION OF THE UNIVERSITY OF LONDON.

We greatly regret the position into which the representative of this University is likely to be forced. As matters now stand, Mr. Quain may be supposed to represent the legal portion of the graduates, Professor Miller and Sir John Lubbock the scientific division, whilst Mr. Lowe comes forward as a politician. No one of these, save, indeed, the last, can expect to be elected as the true representative of the University, rather only of a section of it. This is not as it should be. Now, well nigh at the eleventh hour, a gentleman comes forward, too late, we fear, for success, but one who can adduce greater claims than almost any other. Mr. Chadwick may be said to have existed for his country in a higher and nobler sense than many who have fallen in its behalf. True, he cannot point to mighty victories won over a foreign enemy, or to the earth-heaps which conceal the men who perished at his command. But he can do something better; he can point to victories over those arch enemies of mankind—disease and ignorance—bloodless in themselves, and bringing safety to thousands in their train. If asked for his testimonials, he may point to the Poor-law Act, which is only now being carried out in the entirety he originally suggested; to the sanitary system now beginning to attract the attention he long ago bespoke for it; to the education of the lower and middle classes, greatly improved by his means; and to the system of competitive examination he was the first to advocate. These surely are enough to vouch for a man, and, had he come forward earlier, we should have entertained great hopes of a success we would have been the first to welcome. Mr. Chadwick has received but scant justice at the hands of the people he has done so much to serve; to many who daily reap the results of his labours his very name is unknown; and we should rejoice were a more public testimony of the esteem in which his powers and services are held made by his election as the representative of the University of London. But we fear we can hold forth but little hope of success.

CARBOLIC ACID IN SURGICAL PRACTICE.

Some time ago Professor Lister, of the University of Glasgow, brought before the British Medical world some account of what was supposed to be a new plan of treating cases of compound fracture and the like. The method professed to be a novel one; according to the statements of the distinguished author, it had been eminently successful; and there has been, we think, no Surgical application brought forward in modern times which has become more rapidly and more extensively employed. Go where you will, you will see wounds covered with carbolic acid, and all seem pleased with its results when properly applied. Its use is not limited to London alone; we have seen it in a great majority of our provincial Hospitals. This wide-spread and immediate adoption of what might be termed a new mode of treatment might be traced to one or two sources—in the first place, to a profound dissatisfaction with former methods of treatment, and a correspondent desire for something better; in the second, to a conception of the fitness of carbolic acid from a knowledge of its properties; and, lastly, to the utmost confidence in Professor Lister's capacity as a scientific Surgeon. It is, nevertheless, a striking proof of the danger of bringing forward anything as new without previous exhaustive inquiry. In reality the use of carbolic acid in this way is not new; on the contrary, it has long been so used on the Continent, and a large book on the subject of carbolic acid and its use in Medicine, by Dr. Lemaire, had even in 1865 reached its second edition. We do not wish to disparage the value of Professor Lister's observations—his facts have been the means of extending its use to an enormous extent—but we cannot concede to him the credit of having introduced to the Medical public carbolic acid as a local application. His researches may have been independent of those alluded to, but they were also posterior in point of time. If we might be allowed to append a moral, it would be this—not to bring forward anything as absolutely new without careful previous inquiry. It is also important, before setting to work on any subject, to know everything that has been done in that way before. By a want of attention to these matters much valuable time and labour are wasted. It is all very well for a man to take up some subject thoroughly understood, in order that by verifying his results he may attain an exactitude in experimentation and observation; but after that there is enough waste ground to be cultivated in Medicine for every man to carve out a path for himself.

SANITARY PROCEEDINGS IN BIRMINGHAM.

Fresh action has recently been taken in Birmingham, in regard to sanitary measures for that town, in the form of a memorial to the Town Council, signed by almost all the leading Physicians, justices of the peace, merchants, and manufacturers. The memorial prays that the Council may at once proceed to appoint a Medical Officer of Health, on the ground of the late extraordinary rate of mortality within the borough, and its invasion by sundry diseases, that had not hitherto been at all common. No doubt much of the recent mortality has been due to the death of a great many very old people, from 80 to upwards of 90 years of age, but it is likewise traceable to malignant and depressing forms of diarrhœa, and other epidemic complaints. Hence the desirability of a comprehensive and well-directed course of inquiry. Now that Manchester has appointed an officer of the kind, Birmingham is the only place of very great magnitude without one; and, without casting the slightest reproach upon the zeal and

assiduity of the present Board of Inspection, it must be evident that their exertions must be comparatively powerless without the guiding direction of an efficient Medical authority. Any person of the most ordinary acquirements is able to detect gross filth, bad ventilation, etc., but no one without a scientific mind can thoroughly sift out the sources of morbid poisons, sometimes occurring, as they do, where least suspected by the popular eye. Such an officer, being furnished with the returns of the Registrars, would at once perceive the chief seats of preventible diseases, and, so guided, would doubtless the more readily determine what were the exciting causes, whether these lay in the air, the water, the food, or an overcrowded and really unclean population; for it is not the grimy and dust-darkened skin of hard labour that constitutes *real* uncleanness, so much as the chronic accumulations of animal matters by the idle and sedentary or bed-ridden. For such causes there are ready remedies; but they must be applied comprehensively, and with unity of scientific purpose, and not now here, and now there, in a desultory and unmethodical manner. It is to be borne in mind that such measures are not so much for the benefit of the rich, except in an indirect manner, as for the sake of the suffering poor, who too often cannot, if they would, save themselves from the destructive agencies of preventible diseases. By such a system of judicious removal of causes, a large expenditure might be saved both to Hospitals and to the public purse; while the parochial Medical attendants would be relieved of much hard work and exposure to danger, for several of them here have been stricken down in the prime of life, by exposure to the deadly miasm of malignant fever, etc., while in the execution of their beneficent duties. With this view of the subject, the benefits to be derived from the appointment of an efficient Officer of Health are incalculable. At the same time, in any large seat of manufacturing industry, it is desirable that he shall be a gentleman of large views, and well endowed with the elements of common sense, free from prejudice and all Utopian crotchets. A town of such iron turmoil must be a town of blackened bricks, and, even if rebuilt of marble or universally whitewashed, would soon be as grimly distinguished as ever; but, as there is such a thing as "rude health," so there are such things as the rude conditions of health, and these are of them. It is the real uncleanness that has to be purified, not the mere semblance of it.

FROM ABROAD.—THE CERCLE MÉDICAL AT BRUSSELS—ARSENIOUS ACID IN CEREBRAL CONGESTION.

Some time since we noted in these pages the great success that had attended the Brussels *Cercle Médical* or Medical Club, and expressed a wish that some such institution might be founded in London. Well, since then a "Medical Club" has been founded, and we wish it every success if it supply a want really felt, which experience will soon tell. But this is not the kind of institution we had in view in making the above recommendation. It is an imitation on a small scale of the ordinary "West-end clubs," with their expensive organisation and luxurious mode of life, that may be suitable to those who have both money and leisure at their command, but which can be of no kind of utility to the mass of the Profession. In a vast place like London there are probably enough with the means and tastes necessary for keeping such an institution going, especially when the temporary sojourns of military and provincial members are included. But we much question whether "club life" would prove a congenial one to Medical Practitioners, however well off these may be, who are usually settled and married, and naturally desirous of passing their hard-earned leisure in the midst of their families, where too they are at hand if wanted. A Medical man at present seeks to belong to a club more for the social distinction it may confer than for any of the advantages which other classes may also derive from it, and of course being a member of a mere club of Doctors would in nowise better his status in society.

We had in view a far humbler institution in imitation of the *Cercle Médical* of our Brussels *confrères*, wherein, for a very moderate subscription, members of the Profession might meet together for the purpose of enjoying social intercourse with each other and discussing the various questions bearing on their interests. At present they have no means of doing this, except at the occasional *soirées* which take place, or in rooms hired at taverns for special occasions. At all events, this plan of bringing men together at a mere nominal cost has answered exceedingly well at Brussels, but then of course all the pomp and magnificence of clubs as we understand them are out of the question. The last report of the Brussels club states that its success continues to increase, and that this last year it has added to its other attractions the plan of inviting those who have anything of novelty or interest to offer to the Profession, whether members of the club or not, to make use of their lecture-room for the purpose. All must feel that we want some central institution in London where men may meet at their ease, and discuss with freedom the various topics which, though of vital interest to them, have at present no means for their thorough ventilation. Here, too, might be conducted the business of the Medical charities.

M. Lisle thus terminates a paper he read to the Academy of Medicine upon the "Treatment of Cerebral Congestion and Hallucinations by Arsenious Acid":—1. The insane frequently present more or less distinct signs of cerebral congestion, and the subjects of hallucination always do so. In 193 cases of the latter description treated by arsenious acid, 131, or 67 per cent., were cured, and 29 experienced marked and durable amelioration. 2. Hallucination, considered heretofore as a symptom of insanity, is really only a complication, almost always of serious import. It is the most characteristic symptom of cerebral congestion, the essential nature of which is little known, and which may terminate in insanity, although this is not a necessary consequence. 3. Arsenious acid is truly a specific remedy in this affection. It is also of great utility in paralysis, incoherency, and melancholy unattended with hallucinations, but presenting symptoms of cerebral congestion. 4. Administered with prudence and carefully watched, it is one of the most inoffensive agents of the Materia Medica. The dose should vary from 5 to 15 milligrammes, administered three times a day, just before each meal.

M. de Ranse, commenting on this paper in the *Gazette Médicale*, observes that, while every one admits that cerebral congestion is often the cause of hallucinations, few will agree with M. Lisle as to the constancy of the relation, for in some hallucinations succeeding to debilitating causes, as hæmorrhage, spermatorrhœa, fasting, etc., a totally opposite condition prevails. They also occur in hysteria, and especially in chorea. Notwithstanding, too, the weight of M. Lisle's opinion, as director of the Marseilles Lunatic Asylum, it must be admitted that hallucinations constitute one of the most frequent symptoms of all forms of insanity, and especially in monomania, quite unattended with symptoms of congestion. It is not meant, however, to be asserted that hallucinations never constitute an idiopathic condition independently of mental alienation. As to the arsenious acid, M. Lamare-Picquot long since recommended it in doses of five to ten drops of Fowler's solution, continued over a long period, as a hyposthenic in threatened apoplexy.

Old Port.—It is stated by the late Herbert Mayo, in his "Philosophy of Life," that there is one criterion of fine and old port which he never knew to fail, although it might be an accident. The cork, when it has dried—that is to say, an hour after it has been drawn—should be covered on its under and part of its cylindrical surface with crystals of tartar.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

THE INTERNATIONAL CONGRESS OF PARIS.

In order to fill up the outline I have given of the proceedings of the Congress, it now remains for me to report the discussions which took place on the 22nd and 24th of August.

The first and most important communication made to the assembly on Thursday, August 22, was the disclosure of Professor Brunetti's method of preserving anatomical preparations. Professor Brunetti, who has obtained one of the grand prizes at the Exhibition, had kept his method secret till then. The system principally consists in *washing* the tissues, by injecting water into the arteries, veins, and excretory ducts; in this manner the blood and all the secretions are got rid of. Alcohol is then injected, in order to absorb the water which has been retained, and which, if left there, would bring on decomposition. Sulphuric ether is then thrown into the vessels, in order to dissolve the fat contained in the tissues. This part of the process, in which the injections must be frequently repeated, lasts several hours. When this has been done, a strong solution of tannin in distilled water is injected into both arteries and veins and into the excretory ducts. Lastly, the preparations are dried by injections of hot air, which has previously been deprived of its moisture by chloride of calcium. Professor Brunetti's system has the immense advantage of preserving the histological structure of the organs; the preparations remain light and elastic, and can be handled without the slightest inconvenience.

This communication was received with loud and prolonged applause. When the tumult had subsided,

Professor Lambl, of Kharkhoff, declared that Professor Brunetti's method was one of the greatest conquests of modern science. Not only will it be easy in future to study the histological structure of the tissues, but micrographers will be able to exchange specimens by the post in doubtful cases, and to distribute their discoveries in the most expeditious and satisfactory manner. Professor Lambl concluded by requesting the assembly to give Professor Brunetti a solemn testimonial of its satisfaction.

The applause was again renewed.

M. Lutkowski, a Medical student, in the name of M. Brissaud and his own, exhibited his anatomical preparations, which are also intended to preserve the natural appearance of the parts. He did not, however, explain his system. He merely said that it was principally founded on the use of phenic acid.

Professor Duval, of Brest, gave a long and highly interesting account of his experiments on the bodies of several criminals immediately after their execution. These experiments, which bear upon a great variety of subjects—reflex action, digestion, circulation, respiration, the action of the intercostal muscles, the uro-genital apparatus—cannot be fully analysed here.

Dr. Duchenne (of Boulogne) read a paper on the action of the intercostal muscles. He adopts the opinion of Haller, and considers them as inspirators. His views, he said, were entirely corroborated by Professor Duval's experiments. Clinical cases, however, were the basis of his present communication. In one patient, who was affected with muscular atrophy, it was ascertained that the diaphragm and the other muscles, which most physiologists consider as the agents of inspiration, being atrophied, their place was exclusively filled by the scaleni and the intercostal muscles. In another patient, the intercostal muscles being atrophied, the diaphragm was evidently the sole agent of inspiration. Photographs of these two subjects were exhibited, showing the mechanism of inspiration and expiration.

Professor Baccelli (of Rome) gave a mathematical demonstration of the action of the heart. A straight line drawn from the centre of the aorta to the apex of the heart represents the hydraulic axis of the liquid mass projected into the artery. On each side of this diagonal line the Professor constructs the two sides of a parallelogram, exhibiting the direction of the force which propels the blood from the ventricle into the aorta. The lower angle of this parallelogram is formed by the axis of the septum, and by that of the external paries of the left ventricle. This geometrical figure explains how the contraction of the walls of the heart shortens the hydraulic axis of the liquid mass contained in the ventricle, and propels it into the aorta. The same reasoning is applicable to the progression of the blood in the aorta and lesser vessels, which, after expanding, contract again by virtue of their elasticity, and continue to press the blood forward. These data are confirmed by the cardiographic and sphygmographic figures obtained by Ludwig, Vierardt, Chauveau, and Marey.

Professor Bouillaud, after thanking Professor Baccelli for his elegant demonstration, said that it reminded him of the inscription on the walls of Plato's school—*οὐδεὶς ἀγεωμέτρητος εἰσίτω*. A similar sentence might be inscribed on the walls of the amphitheatre in which the meetings of the Congress were held.

On Saturday, August 24, the principal communication read to the assembly was Dr. Shrimpton's paper on cholera. The author began by establishing that the only constant symptoms of the disease are—1. Refrigeration; 2. Suppressed oxygenation of the blood; 3. The intestinal excretion. The primary cause of all these phenomena he believes to be asphyxia of the elementary cells of the living tissues. As soon as the depressing influence has ceased, the reaction sets in, even after death—a fact which proves that the morbid action principally resides in these primary elements, the *local* life of which persists some time after the extinction of life in *general*. Cholera, says Dr. Shrimpton, cannot be contagious, because there are no germs of infection in that disease. To produce these germs a certain organic elaboration is necessary, and no such elaboration can possibly take place in cholera, since all organic action is suspended as long as the disease lasts. Dr. Shrimpton declared himself prepared to submit to any experiment which might be proposed by a Medical commission; he was ready, he said, to sleep side by side with a patient in the last stage of cholera, to inhale his breath, or to undergo any kind of inoculation which might be suggested.

Professor Crocq said that, without discussing the nature of cholera, he wished to enter a protest against the non-contagionist views of Dr. Shrimpton. It was not to be feared that Physicians would abandon their patients if the transmissibility of the disease was proclaimed; did they not daily attend cases of small-pox, scarlet fever, croup, glanders, and other affections of a contagious nature? Professor Crocq then enumerated the proofs which plead in favour of the contagion of cholera. He fully adopts the views of Pettenkofer, and believes the *materies morbi* to exist in the dejections. He quoted a large number of cases drawn from his own private practice, which confirmed this opinion.

Professor Marcowicz (of Bucharest) said that, having been entrusted by the Moldo-Wallachian Government with the inspection of the districts affected with cholera, he could not accept the conclusions to which Dr. Shrimpton had been led. He had seen the disease imported into the chief marts of the Lower Danube by trading vessels; from these points it spread into the interior of the country along the rivers, and through the roads which establish communications from one place to another. Dr. Shrimpton's courageous and praiseworthy proposal to submit himself to inoculation served only to prove his perfect sincerity; but should the experiment be tried, no scientific conclusions could be drawn from it. Cholera was a contagious, but not a virulent disease. Its chief cause was poverty. In Moldavia, the disease was chiefly propagated by the Jews, who, in the Danubian provinces, are the most destitute class of the population, and whose absolute want of cleanliness is proverbial. At Jassy, where Professor Marcowicz resided, there were 150 deaths per diem. By compelling 4000 Jews to emigrate to a certain distance, the average mortality fell to 30 per diem; and the Jews themselves, who suffered fearfully from the disease in the city, were almost immediately freed from it in their new abode.

Dr. Bonnet, of Bordeaux, considers sanitary measures and quarantines as useful, but denies the efficacy of measures taken to prevent the migration of morbid effluvia, in the existence of which he does not believe.

Dr. Revillant said that when he was sent to Egypt, at the time of the cholera of 1865, by the French Government, he was a believer in the contagion of cholera, but that, since then, he has completely changed his mind. He quoted several facts observed in Egypt, all tending to disprove the contagious nature of the disease.

I must close here my report of the proceedings of the Paris International Congress. The papers read before the assembly or sent to the Secretary-General, together with the discussions to which they gave rise, will be printed *in extenso* by Asselin, the publisher of the Paris Faculty of Medicine. To this

future publication I must beg to refer those of your readers who wish for a complete and official account of this great Medical solemnity.

BIRMINGHAM.

SEPTEMBER 19.

THE need of a Medical Officer of Health has been long felt by the people of Birmingham. Nothing up to the present time, besides the discussion of the subject, has, however, been done in the matter; but now a committee of influential men are taking active and determined steps to bring about the appointment of one. Although the town on the whole is well drained, yet there remains much to be done in the way of sanitary improvement. There are still nuisances, both tangible and atmospheric, to be removed, many of which can only be pointed out and remedied by a proper officer. We have enjoyed the privilege of having the services of a borough analyst for a considerable time, and as his duties are somewhat analogous to those of an officer of health, why not combine the two offices, and make the appointment of value? There are many men of talent in the town who would be glad of it, and who, from their knowledge of hygiene, would shed lustre upon the office.

The Governors of the Children's Hospital have drawn up an excellent code of laws for the regulation of the appointments of the Medical officers to their Charity.

The Governors of the General Hospital have also taken up the question of Hospital reform. A meeting is to be held to-day to consider the subject. The Governors are divided into two classes. One class objects to any alteration being made in the present mode of election, and submits, as a proof of the soundness of the old plan, the excellent officers who have hitherto formed their Medical staff. The other class objects *in toto* to the old mode of election, and alleges that it gives rise to favouritism, and permits the influence of money to preponderate; they, therefore, propose to substitute for it the constitution of a committee to consist of persons chosen from the body of Governors, with the addition of the four Physicians and four Surgeons who represent the Medical staff of the Charity.

On September 13 the members of the Medical Benevolent Society held their annual meeting, under the presidency of Dr. Fletcher. There was a pretty good attendance of members. The report was read by the hon. secretary (Mr. Taylor), in which the directors stated the continued financial success of the Society, its funded and invested property amounting to the round sum of £7297. In addition, there were several donations reported. Death has dealt severely with them, removing seven of its members during the past twelve months, but the heavy loss which the Society has thus sustained has been partially supplied by the election of seven new members. Resolutions expressive of thanks to the different officers having been passed, the meeting terminated.

Amongst the "wanted," I notice an advertisement in a local paper soliciting subscribers to one of our special Hospitals. The number required is not specified, but I presume the more the merrier. Really the secretary of this Hospital must be commended for this novel method of getting pecuniary assistance.

The festival, as I predicted, was a magnificent success: it began, continued, and ended to the satisfaction of everyone concerned. A noble sum of money was reaped for the benefit of the Hospital, and those who brought it to such a glorious issue have one by one been thanked, and have departed each one to his own home, there to remain until the year '70, when a similar musical carnival will be again celebrated.

The Queen's College affairs have been settled, and the "good time" of the College is supposed to be drawing nigh. The present Professors hold office until the Summer Session, when they will receive their *congé*. This I have from an official source. Of course, they will be permitted to apply to be reinstated, and as they have hitherto performed their duties well, and to the satisfaction of the students, there is every reason to believe that they will be reappointed. As in other mundane concerns, so will it be in this, I imagine. *Sibi quemque cavere oportet.* A public appeal is to be made to the town for pecuniary assistance to carry on the College in its remodelled form, and doubtless those who claim it as their "alma mater," and those who promised to aid it as soon as it was regenerated, will respond to it liberally, and so help this unhappy institution on in its new career, *ventis secundis.*

Ovariotomy has become quite a standard operation at the Queen's Hospital, and, as a rule, the patients do well. Mr. Gamgee had two cases lately, and both are making capital recoveries. I saw one of the patients this morning, and she expressed herself as feeling very comfortable and free from any pain.

GENERAL CORRESPONDENCE.

DR. BEATTY'S FORCEPS.

LETTER FROM DR. EASTLAKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Owing to the great estimation I possess for Dr. Beatty, and the high value with which I regard his forceps, I hope I may be allowed, during the present controversy concerning the use of the straight and double-curved instruments, to bear my testimony in favour of the former. I am induced to do this, owing to my having used, and seen used, many varieties of forceps in various obstetric schools in this country and on the Continent; my opinion may therefore be regarded as an unbiassed one. Dr. Beatty has, in your impression of the 21st inst., described his own instrument and its application so accurately, and has so ably answered the objections that have been raised against it, that it would be superfluous to touch upon either of these points. I will therefore merely briefly state my own personal experience of it as an obstetric instrument. On referring to my note-books I find that I have delivered women by means of Dr. Beatty's forceps in thirty cases of childbirth, and if I exclude one case where the woman was dying of cholera during her labour, and another in which I was convinced of the child's death before commencing to operate, I can truthfully say that the delivery in all these instances has been effected with perfect safety both to mother and child. I need scarcely say that out of this number the circumstances under which I performed the operation have been very varied; the fœtal head has often been high in the pelvis, and sometimes placed in the occipito-posterior positions, and yet on no occasion has the extraction been attended with much difficulty. It is certainly an error to speak of Dr. Beatty's instrument as the "short forceps." Both the high and the low operation can be equally well accomplished by its use. My experience, then, of the instrument would lead me to state that it is the most easily applied of any, and that, if the rules laid down by Dr. Beatty are strictly adhered to, *cæteris paribus*, no injury to the mother or child will ever accrue from the employment of these forceps.

I am, &c.

HENRY E. EASTLAKE,
Fellow of the College of Physicians, Dublin, etc.
Welbeck-street, Cavendish-square, September.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

*** The following letter has been sent to us for publication:—

To the Governors of the Royal Hospital for Diseases of the Chest.

Gentlemen,—Two letters, one signed "Horace Dobell, M.D.," the other "By order, Charles L. Kemp, Secretary," and both relating to our resignation as Medical Officers of the above-named charity, have been forwarded to you. As both letters are constructively the same, as they bear internal evidence of one directing hand, and as the letter "By order" is obviously written specially to plead the letter of Dr. Dobell, we shall save time in our reply by taking them as a single communication.

The assumed cause of our Resignation.—The first point in these letters to which we would refer is the assumed cause of our resignation. It is admitted that this rests on a disagreement between us and one of our colleagues, Dr. Dobell, whom we in our previous letter taxed with "assumption of authority and a spirit of interference." To give a respectable basis to this disagreement, Dr. Dobell and the Council would make it rest on a collision between him and ourselves, upon the question of the qualification of the Physicians of the Hospital. The argument is that Dr. Dobell was anxious to sustain the highest qualification of the Medical Staff, while we wished to lower it, in order that one of us, Dr. Powell, might be

admitted as Assistant-Physician. It is painful to say it, but it is solemnly true, that this argument is an entire fiction, invented to hide the real causes of dissension. It is true we are of opinion that in all Hospitals it is a wise and liberal policy to allow respectable Medical graduates of Universities of the United Kingdom to offer themselves as candidates for office, although at the moment they may not be members of the Royal College of Physicians; or that the most that should be demanded by rule is, that such candidates should be required to take up their College Membership within a limited period. But this is merely a matter of opinion; we do not consider that any man who differs from it shows either an assumption of authority or a spirit of interference, and we have never expressed towards Dr. Dobell the slightest unfriendly feeling on the subject. In respect to Dr. Powell, it is the positive fact that he has never applied for the office of Physician, nor of Assistant-Physician, nor has ever been proposed for either post.

The minute of the "Medical Council" of July 3, 1866, to which Dr. Dobell refers, relates to a meeting at which Dr. Leared was not present: it is a minute drawn up by Dr. Dobell, but it has never been confirmed. In truth, we refused to confirm it at the subsequent meeting, because it merely represented Dr. Dobell's exclusive views, omitting all mention of any one else; it is therefore no record of the "Medical Council" at all, but a mere piece of writing by Dr. Dobell.

The real causes of our Resignation.—The real causes of our resignation are what we have said in general terms in our former letter, viz.: "the assumption of authority and spirit of interference of Dr. Dobell," coupled with certain practices of proclaiming himself, which we could not endorse. We will state now on what real grounds we assert the "assumption of authority and the spirit of interference," taking up only those matters in which we are all concerned.

1. One of us, Dr. Richardson, for a few months prescribed in the Hospital a medicinal substance which he considered of service in some forms of chest disease—the substance was a solution of oxygen. Dr. Dobell, on this, called upon Dr. Richardson, and requested him not to prescribe it any longer, because it was too expensive. In like manner, on Dr. Leared having desired to bring the hot-air bath into scientific use in the Hospital, Dr. Dobell again interfered. Considering that Dr. Dobell during all this time was not a member of the Infirmary Committee, we feel that these were gross acts of interference and assumptions of authority; and when we remember that whatever he himself wished to do, out of the ordinary path, in shape of diet-handbills and pancreatic emulsion, he let the Hospital pay for his extravagant experiences, we might fairly add, if it were necessary, another term to explain his conduct.

2. Dr. Dobell is Physician to an institution called the National Assurance Company. It is the fact that by his direction a large framed and glazed placard of this company, with his own name upon it, was put up in the most conspicuous part of the Physicians' room, the room where we all prescribed; a smaller assurance bill being suspended in our private room. These placards were there for months. This, we consider, was an assumption of authority, which would not be tolerated by the authorities of any other Hospital: it transformed the objects of the Hospital from public to private use.

3. On another occasion, without a word of communication with us, he had the patients' waiting-rooms placarded with advertisements of a particular respirator. As we had never seen the respirator to know whether it was good or bad, as he had not satisfied himself whether we approved of the use of respirators at all, and as he subjected the Hospital and ourselves, without our permission, to the recommendation of one particular manufacturer—always a hazardous and often a dangerous expedient—we consider this an assumption of authority and an act of interference, which neither the pretence nor the actuality of good intention can excuse.

4. On public occasions Dr. Dobell has gone the extremest length in making himself appear *the* Physician of the Hospital. At a public dinner, when Mr. Bass was in the chair, he positively rose to reply for the Medical Officers with two of his senior officers sitting before him, and with the chairman calling for one of them. We consider this an assumption, and an assumption intensified into vulgarity by his after explanation, that he had arranged *with the Secretary* to represent the Medical staff himself.

5. His position as Secretary to the "Medical Council" has been equally pretentious. He has summoned us to suit his own convenience, often letting months elapse without a meeting. On one occasion, when two of us met at his own time and place, he kept us waiting until other urgent affairs called us away; and on another occasion he made the minutes so exclusively his own, and so decidedly not ours—for he mentioned nobody's views but his own—that we declined to confirm them.

6. At the last meeting but one of Governors of the Hospital, on the suggestion of Dr. Leared, a resolution was moved and properly carried, allowing a candidate for the office of Assistant-Physician to go to election, on condition that in twelve months such candidate should become a Member of the Royal College of Physicians. At the next meeting of Governors this rule was brought forward, with the addition that the said candidate was not to practise Midwifery nor Pharmacy. By his own admission to us, at a meeting of the "Medical Council" (July 26, 1837), Dr. Dobell did this act of adding a clause to the business of a public meeting that had formally closed its proceedings on his own mere motion. We need not ask whether the added clause was good or bad; we are content with asserting, that for any single individual, for any purpose whatever, to do such an act, was an assumption of authority, as unparalleled as it was unpardonable.

Lastly. We come to the most serious matter of all. A patient very ill was under the care of Dr. Richardson in the Hospital, and required the operation of tapping of the chest. According to the rule of every such institution, Dr. Richardson called upon the Acting Surgeon, Dr. Powell, to perform this operation. Dr. Powell, in discharge of his duty, did so, giving to the patient the required relief. On the following Monday, Dr. Dobell, meeting Dr. Powell in the Hospital, insulted him in the most wanton manner, telling him that he had no business to perform the operation, but that he ought to have sent for Mr. Adams, the Consulting Surgeon, whom he, Dr. Dobell, had seen, who had expressed a wish to perform all the operations, and who would be very much hurt if he heard that an operation had been done by any one else. Considering that in this case everything had been carried out in perfect order, and that the patient was under the exclusive care of Dr. Richardson, we hold that this was an act of assumption and of interference on the part of Dr. Dobell that cannot be fully described, except in terms we would avoid. Further, on application to Mr. Adams, he denied having ever wished to supersede the Acting Surgeon in any way; so that the proceeding was far worse than any mere assumption of authority.

The effect of this act is best told by the facts of experience. A few weeks after the patient above referred to had been discharged, she returned, with sudden re-accumulation of fluid in her chest, and in imminent, nay, hourly danger of life. She came again under Dr. Richardson, who saw that a repetition of the operation could alone save her. But, on consultation with Dr. Powell, it was naturally felt that no act of theirs could pass without the chance of censure from one of their colleagues; and were therefore obliged, in self-protection, to trouble Dr. Davies to come and lend his support, in the performance of a duty which should have admitted of no obstacle and no delay.

These, gentlemen, were some of the all-powerful reasons for our retirement. They were confirmed, they were enforced, by the issue of the diet handbills of Dr. Dobell. Those handbills, finding their way into Professional circles, and becoming known to us in that manner, left us but one alternative—to separate ourselves from him. The argument of your Council, that St. Bartholomew's, St. Thomas's, Guy's, Brompton, and King's College Hospitals issue certain forms, bearing the names of the Physicians, has no relation to this matter. The question is—do the said Hospitals, for any one of their Physicians, send out any such handbills as the following?

[*** Here follows a handbill similar to those published in the letter of our correspondent "Medicus," *Medical Times and Gazette*, August 17, 1867.]

For our parts, we think and hope that no public charity has ever before let forth such a handbill, notwithstanding the inference to the contrary conveyed in the letter of your Council. And if it has; if, for instance, St. Bartholomew's has paid for the printing of such a bill for one of its Physicians, and has allowed it to go forth amongst the poor and necessitous who seek out-door relief, then we are forced to accept, either that there are poor and necessitous patients at St. Bartholomew's who can command, at least, from two to three hundred a year; or there is a Physician who can practise a grim and ghastly joke on helpless poverty; or the Hospital is pleased to promote a handbill which, passing as a begging letter, will bring the name of its favourite leech into special prominence in the houses of the wealthy. Accepting either

view, we are forced to feel that, were we Medical Officers, even of St. Bartholomew's, we should resign our posts.

The question of Attendance.—The Council, in their letter, affirm that the attendances of Drs. Richardson and Leared were so irregular, that no less than eight meetings of Council were held in three years, to consider this want of regularity. This is a serious charge, and, in reply to it, we are obliged to give the following facts:—1. Dr. Richardson, who during the three years was a member of the Council by right, never received a single notice of any such meeting. 2. Dr. Richardson and Dr. Leared were both kept uninformed of such meetings until the latter end of last year. Then the Secretary, Mr. Smart, called, as he said "unofficially," on Dr. Richardson, to ask him if he would resign, not concealing for a moment that the object was to give Dr. Dobell seniority of office. Dr. Richardson thereupon stated that he had no desire to resign; that he would not be pushed out, after his long service, in that underhand way; and that if there were any cause of complaint, it must be formally sent to him from the Committee. A few weeks afterwards Mr. Smart came again, with the motion (passed also at a meeting to which Dr. R. was not summoned) which is printed in the letter signed by Mr. Kemp. To this motion Dr. Richardson replied, asking the Committee to name *one* specific case of neglect; to which request, not a word was received in reply.

In this case the Committee was misled by the attendance book, about which explanation is required. Some time previously the Physicians, without notice, and with no compact of the kind when they were elected, were ordered to write down in an attendance book the precise times of their entering and leaving the Hospital. The majority declining to do this, Mr. Birse, the dispenser, was set on to watch the Physicians, and report them in the book. Very soon Mr. Birse naturally found that the duty was not exactly English in its bearings, and that to carry out a systematic espionage on honorary officers, who were considerate and courteous to him, was more than he could accomplish. In this way, therefore, the attendance book, just in proportion as it gave evidence of non-attendance of the Physicians named, gave evidence that was unreliable.

There remain now but two or three subjects for consideration. It is urged that one of us was present at a general annual meeting of Governors when the election of Dr. Dobell to the post of Honorary Secretary was confirmed; but it is suppressed that to oppose him would have been worse than waste of energy. Dr. Dobell affirms that we never expressed opposition to his proceedings until our letter of resignation. We answer to this untruth that some weeks before our resignation—viz., on July 26, 1867, we told him in plainest terms *all our objections*, and offered with equal distinctness, but unavailingly, to let the past be forgotten if he, admitting errors of judgment, would withdraw in the future what to us was so offensive. The Council, again repeating Dr. Dobell, state that if we had brought the matter before them, the objectionable proceedings could have been removed; to which we reply that we considered carefully the propriety of taking the step suggested by the Council, and we felt that possibly the objectionable proceedings might be thus brought to an end; but, unfortunately, we were driven also to the conclusion that, after what had occurred, the mere compliance of Dr. Dobell under such circumstances would not warrant us in remaining his colleagues, and that if we asked for anything it could be for nothing short of his dismissal or ours. The discourtesy with which the Council of the Hospital has accepted our resignations, and the partisan letter written, as it is said, by their order, is of itself sufficient proof of the correctness of the course we have pursued. To have remained in office for the sake of office would have been contemptible; to have put ourselves to the certain chance, as we felt, of being dismissed from office, was folly; we resolved, consequently, to sacrifice office and to retire, stating our reasons for retirement—a natural privilege to claim, and in every sense honourable. We thus left the Council still free to deliberate, and free to accept or refuse our resignations; but we left it no cause for discourtesy to us, and no reason for the reckless and *ex parte* defence which it has published for Dr. Dobell.

In conclusion, we repudiate the accusation of any wish on our parts to injure the Hospital. For years past we have tried (we had hoped successfully) to raise it from the abject degradation into which, at an earlier period of its history, it was brought, by selfishness and quackery, to place it in its true position as a Hospital of sound scientific and Professional standing, and as a charity in which individual interest and caprice could find no scope; and we must beg you so to qualify the intemperate criticism of your Council, as to accept our united act of resignation, not in the light of an offence, but as one of the most painful necessities that could have been imposed upon us.

We have the honour to remain, gentlemen,
Your most obedient servants,
Benjamin W. Richardson, M.D., F.R.S.,
12, Hinde-street, W.
Arthur Leared, M.D., M.R.I.A.,
12, Old Burlington-street, W.
Josiah T. Powell, M.D., M.R.C.S.,
347, City-road, E.C.
London, September 19, 1867.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 25, 1867.

Mr. Solly, President, in the Chair.

A paper, by Mr. J. Cooper Forster, was read on

A CASE OF COLLOID CANCER OF THE COLON—ATTEMPTED COLOTOMY—CONSTIPATION EIGHTY-EIGHT DAYS.

A lady, aged 40, without children, was seized on September 3, 1866, with an attack of diarrhœa, which lasted ten days; her bowels became gradually confined from this date, and pain occured at intervals over the whole abdomen, more especially in the left iliac region. From October 10 to the day of her death the bowels were never relieved. There was tympanitis to a slight extent; she vomited occasionally; there was no great heat of skin; urine was rather scanty, but clear. Various remedies were tried; the long enema tube was passed about fourteen inches up the rectum, when it met with an obstruction, and the injection thrown in returned unchanged. The author saw her first on November 29, and found the abdomen by no means greatly distended; no hardness to be felt at any particular spot; occasional vomiting; an anxious countenance; a small thready pulse; a clean tongue; the extremities cold. No evacuation had taken place for fifty days, though she thought she passed a small quantity of flatus; nothing abnormal could be detected per rectum or vaginam. Colotomy was attempted; the colon was found flaccid and empty, lying deep in the wound. The incision was closed, and in four days the parts were perfectly healed. Opiates were again administered. The author saw this lady the second time on December 15, when she appeared much the same. A proposal was made to open the ascending colon, but it was not acceded to; and a suggestion was offered to explore the abdomen, to which the author would not consent, but tapped the distended intestines with a fine trocar and canula with great temporary relief. No other remedies appeared available; she continued much the same, with slight sickness, and died exhausted on January 7, 1867, thirty-eight days after the attempted operation and eighty-eight days from the date of the last evacuation. The post-mortem examination revealed colloid cancer of the descending and sigmoid flexure of the colon opposite the incision in the lumbar region; the rest of the large intestine was full of fæces, as also a portion of the ileum; there were likewise traces of the disease in other parts of the abdomen. The author alluded to two interesting points in connexion with the case, and offered some remarks upon them:—1. A possible source of difficulty in performing colotomy, which he believed with every care could not be foreseen; and 2nd. The extraordinary length of time during which constipation existed. Attention was also drawn to the method adopted to reach the colon—viz., by a longitudinal incision instead of a transverse. The variety of the cancer—viz., colloid—was alluded to, and also the mode of death.

A paper, by Mr. Hutchinson, was read on

THE FORM OF AMAUROSIS SUPPOSED BY SOME TO BE CONNECTED WITH THE USE OF TOBACCO.

This paper contains a statement, in tabular form, of all cases of primary white atrophy of the optic nerves which have come under the writer's care during a period of three years. By the term "primary white atrophy" it is intended to exclude all cases in which there had been at any stage evidence of neuritis. The series includes thirty-seven cases. Thirty-four

of the patients were men, and three were women. Of the thirty-four men thirty-one were smokers, and of these in twenty-seven no other cause could easily be conjectured; whilst in four, other causes, such as intemperance, sexual excesses, etc., were quite possible. In three cases the men had either never smoked, or had smoked so little that it seemed impossible that the use of tobacco could have had anything to do with the disease. None of the women (three in number) had been smokers. The tabular statements comprise tolerably full information as to the dietetic habits and state of health of the patients, as to the quantity of tobacco used, as to the premonitory symptoms of the amaurosis, the ophthalmoscopic appearances, and the results of treatment. The facts collected appear to the writer to justify the following conclusions:—1st. That this form of amaurosis is met with in the two sexes in the proportion of one woman to twelve men. 2nd. That in the male sex it is very rarely met with excepting amongst smokers, whilst it is very rare indeed amongst children. 3rd. That most of its subjects have been heavy smokers (half an ounce to an ounce a day), and that in many instances the patients themselves become aware that the habit disagrees with them. 4th. That, as a rule, this disease is not met with in special connexion with puberty, with celibacy, or with sexual excesses. 5th. That it is not usually associated with any other disease of the nervous system. 6th. That amongst the measures of treatment the prohibition of tobacco seems to rank first in importance. 7th. That the circumstantial evidence tending to connect the disease with the use of tobacco as a cause is of such a nature as to entitle the question to the serious consideration of the Profession. The writer wishes it to be clearly understood that he does not advocate any particular view, and that his wish is simply to draw attention to the clinical facts. He would add further that it is quite clear, supposing that tobacco does sometimes cause the disease, that it does so only in certain constitutions, some peculiar idiosyncrasy being required; and that it is at best only one of the causes by which this form of amaurosis may be produced.

Mr. Erichsen communicated a paper, by Dr. George Buchanan, of Glasgow, on a case of

ARTIFICIAL ANUS SUCCESSFULLY TREATED BY DUPUYTREN'S ENTEROTOME.

Dr. Buchanan commenced the above communication with a short notice of the condition to which it refers, and proceeded to illustrate the use of the enterotome by describing a case in which he had recently employed it with the best effect. The patient, Mrs. G., aged 40, was the subject of femoral hernia, which became strangulated on July 2. During an operation performed for its relief, the bowels gave way, and an artificial anus was the result. She came under Dr. Buchanan's charge in the Infirmary on August 17, and was placed under suitable treatment till she improved in health and strength. On November 30 Dr. Buchanan introduced the enterotome without producing any pain or other annoyance, not completely closing the blades. The day following the blades were pressed closer together, and on the third day they were quite locked. On the fifth day some fæces came per anum for the first time for nearly five months. The instrument dropped off on the eighth day. After this fæces continued to pass daily per anum, some also coming by the groin for a considerable time after the instrument came away. At the date of her dismissal from the Hospital she had a passage from her bowels the natural way daily, without the use of medicine; and though the opening in the groin was not yet closed, by the use of a truss the fæces could be retained, and the patient went about her ordinary occupation, so that she was much in the same state as a person affected with a reducible femoral hernia for which a truss is worn.

A paper, by Mr. John Birkett, was read on

A CASE OF ANEURISM OF THE FEMORAL ARTERY, THE SAC OF WHICH BURST, AND ITS TREATMENT; WITH OBSERVATIONS.

A man, aged 40, pursuing a most laborious occupation, was admitted into Guy's Hospital in April, 1867. He had felt a femoral aneurism in the right thigh for eight months. Whilst at work, and about ten hours before admission, he felt the sac burst, and immediately the limb became swelled. On reaching Guy's Hospital, the right thigh was tense and very painful. The tumour pulsated, but no pulsations were perceptible in the vessels below it, and the leg and foot were œdematous. About eleven hours after the accident, I incised the tumour, removed the contents, and tied ligatures upon the trunk of the femoral artery above and below the sac. The abdominal aorta was compressed with a tourniquet, and the external iliac by digital pressure during the operation. Suppuration and sloughing of the sac took place, although the pus was always of the healthiest kind. The wound began to heal at its ends almost immediately, and on the tenth day the lower ligature separated. On the fifteenth day the upper ligature came away, and two days afterwards hæmorrhage occurred from the uppermost vessel. The superior part of the wound was opened with the finger, and a ligature tied on the bleeding vessel. This ligature separated on the eighth day after its application, and five days subsequently slight bleeding occurred. This was controlled by pressure, and the whole wound healed, and he left the Hospital in eight weeks after its infliction. Details are added in reference to the occupation, habits, and constitutional nutrition of the patient; a few reasons are given for selecting the particular operation performed; and the paper is concluded by a general statement of the dietetic treatment adopted, and the nature of the medicines administered.

A paper, by Dr. William Marcet, was read

ON THE INOCULATION OF ANIMALS AS A MEANS OF DIAGNOSIS IN TUBERCULAR PHTHISIS.

We are indebted to Dr. Villemin for the very remarkable discovery that tubercular phthisis can be inoculated from man to animals; rabbits and guinea-pigs, which are naturally liable to the disease, being fit subjects for inoculation. When I became acquainted with Villemin's papers, I happened to be engaged with an investigation of the expectorations in phthisis, and it struck me that, if his results were correct, by inoculating the expectorations of phthisical patients, containing tubercular matter, to healthy rabbits or guinea-pigs, these animals would become tubercular; thus I thought that a physiological method of diagnosis of great importance might be arrived at, for should the inoculated animals, after a certain time had elapsed, either die tubercular, or, on being killed, exhibit tubercles in any part of their body, there could be no more direct evidence as to the nature of the diseased condition of the patient whose expectorations had been used for inoculation. If the result of the inquiry was found to be in accordance with this view, I had yet to show that the non-appearance of tubercles in guinea-pigs inoculated with expectorations from a supposed incipient case of phthisis might be considered as evidence of the patient's lungs not being tubercular. This second part of the question is more difficult to solve than the first; I am engaged with it at present. Twenty-two guinea-pigs were submitted to experiment. The expectorations of nine different patients suffering from phthisis were inoculated to as many guinea-pigs: in two cases two animals were inoculated respectively with the sputa from the same patient. Of these 9 patients, 8 could be safely considered in the second stage of phthisis, the tubercles undergoing softening and being expectorated. One patient appeared to be in the chronic third stage, with cavities contracting. The sputa of one well-diagnosed case of bronchitis was inoculated to a guinea-pig, for the sake of comparison, and one young animal of the same litter as two which were inoculated was kept without being inoculated for a similar purpose. This will account for thirteen of the animals. The remaining nine were used in these experiments as follows:—Two guinea-pigs were inoculated with the expectorations of two cases of doubtful phthisis. One animal was inoculated with blood taken from a body during a post-mortem examination at the Brompton Hospital; another with blood procured from the last animal eleven days after the former operation; two were inoculated with pus taken from the chest in a case of empyema, where paracentesis thoracis had been performed; lastly, three sound guinea-pigs, kept with those that had been operated on, were killed in order to ascertain whether their internal organs were free from tubercles. The following results were obtained from the inoculation of the eleven guinea-pigs with the expectorations from phthisical patients:—One of the animals died three days after the inoculation, obviously from some cause independent of the influence which the inoculated matter might have exerted towards the development of tubercles, and in this case no tubercles could be found in the body of the animal. Six guinea-pigs died, and every one of them exhibited most positively tubercles to a greater or less extent. Of these five died between forty-three and fifty-six days after being inoculated, and one case proved fatal in twenty-one days. on February 7, the cold weather having obviously weakened the animal, and contributed to the rapid termination of the disease; in the present case the guinea-pig's

spleen alone was found tubercular. Four other guinea-pigs were killed at periods varying from forty-seven to fifty-four days after inoculation, and tubercles were found in every one of these animals. There are seven more cases of inoculation to account for—1st. Inoculation with expectorations from a patient exhibiting doubtful signs of tubercles. Results: Death two days after inoculation from the effects of the opcration; no tubercles found. 2nd. Inoculation from another doubtful case of phthisis; animal killed fifty days after the operation; no tubercles found. 3rd. Inoculation with blood from tubercular human dead body; animal killed eighty-three days after inoculation; tubercles found in lungs, liver, spleen, lymphatic and mesenteric glands. 4th. Inoculation with blood from last animal eleven days after the operation; guinea-pig killed seventy-two days later; no tubercles. The stage of the disease at which the blood was taken may have been too early to be productive of tubercles; hence the negative result. 5th and 6th. Inoculation of two guinea-pigs frcm the case of empyema; result, one animal died eight days, and the other was killed fifty days, after inoculation. The first guinea-pig dying so soon appears to show that it was tubercular when operated, which does away with the value of the experiment. The second exhibited tubercles in the lungs, liver, spleen, lymphatic and mesenteric glands. 7th. Inoculation with the expectorations from the case of bronchitis. The animal was found, on being killed eighty-two days after inoculation, in no way tubercular. Finally, not one of the three animals left sound, and which had lived with those that had been inoculated, presented, on being killed and examined, the slightest trace of tubercles, although they had been for about two months under precisely the same conditions as the others; and the young guinea-pig of the same litter as two of the inoculated ones, and which was preserved healthy, is now growing rapidly, and appears in perfect health. I may add that Mr. M. J. Salter, who assisted me in these experiments, has witnessed every one of the results which I have recorded in the present communication. In conclusion, I believe the results of the experiments and observations related in the present paper to be as follows:—1st. The inoculation of guinea-pigs with the expectorations of patients suffering from phthisis will, at all events in a certain stage of the disease, and possibly throughout, give rise to the formation of tubercles in the operated animals. 2nd. If two or more guinea-pigs inoculated with human expectorations, brought up by coughing, should die from tubercular disease, or should, on being killed at least thirty days after inoculation, exhibit tubercles, this may be considered as a direct and positive evidence that the person whose expectorations were inoculated was suffering at the time from tubercular phthisis. 3rd. If two or more guinea-pigs be inoculated with the expectorations coughed up by a person considered to be in the third stage of phthisis, and if these animals do not die of tubercular disease, or exhibit any tubercles when killed at least fifty days after inoculation, it may be considered that in the present case the softening of tubercles and the secretion from the pulmonary cavities are arrested, the patient being in a fair way of recovery. 4th. Other materials besides the pulmonary expectorations taken from the human body in certain, if not in all, stages of phthisis, as blood and pus, appear to be also possessed of the power of causing the formation of tubercles in guinea-pigs when inoculated to these animals. 5th. The spleen appears to be the first, and the lungs one of the last, organs in guinea-pigs to be attacked with tubercular disease. Many of the patients whose expectorations were used for inoculation were in-patients of the Brompton Hospital for Consumption; and I beg leave to take this opportunity of returning my most cordial thanks to the Medical officers of that institution for the facilities they are kindly affording me in these and other investigations connected with phthisis.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 3.

Dr. Hall Davis, President.

The following gentlemen were elected Fellows:—Dr. Cuolahan, Mr. C. C. Fuller, Dr. Mickley (Nottingham), Dr. Pearce (Leicester), Dr. Heywood Smith, and Mr. Evan Williams.

Dr. Meadows exhibited a specimen of Monstrosity, which was born at term and lived for a few minutes. It was perfectly formed as regards its upper half, but in place of the lower extremities there was a sort of caudal appendage, which moved backwards and forwards as if by a hinge-joint. There was no anal orifice nor any external genital apparatus.

Dr. Meadows and Dr. Bannister (in whose practice it occurred) were requested to furnish a detailed report on the specimen.

Dr. Meadows also exhibited an Ecraseur made by Messrs. Weiss, the principal features being: (1) the single steel wire in place of the chain or wire rope; (2) a wheel at the end of the instrument for the wire to roll over; (3) a kind of windlass worked by an endless screw, around which the wire coiled as it was drawn in. The advantages claimed for it were, great power, strength, and facility in working.

Dr. Sheraton exhibited an improved Tire-Tête, or combined Perforator and Extractor. The instrument consisted of a spear-headed perforator formed by two blades, which were capable of separation to a limited extent, and presenting two claws which, after the head was opened, might be fixed into the interior of the cranial bones and so enable traction to be made. The length of the instrument was about ten inches.

Dr. Meadows and Dr. Grailly Hewitt feared that the use of the instrument would be attended with considerable danger.

Mr. Curgenven related a case of Hereditary Convulsions.

Dr. Skinner related a case of Salivation during Pregnancy.

A paper was then read by Mr. Squire on

puerperal temperatures.

The author commenced by remarking that it was to the careful study of the natural history of disease that Medical science owed much of its recent progress, and that some of its surest advances had been guided by the systematic use of the thermometer in marking the variations of bodily temperature. The study of such variations, as illustrative of the changes that take place in pregnancy, in parturition, and in the puerperal state, was the subject of the present paper. In the latter months of pregnancy the temperature of the body is somewhat increased, and, after the sixth month, it will generally be found to be somewhat over 99°, subject to a slight variation in different persons, and in the same person under different conditions. In the unimpregnated condition much greater oscillations of temperature occur in connexion with the catamenial period than at any time during pregnancy. Thus on the occurrence of the catamenia there is a considerable fall in temperature, and a variable rise shortly before, the temperature having been raised as much as one degree and one degree and a half in some cases just before the period; and in one case a fall of two degrees and a half took place within the first two days after its appearance. The difference between the vaginal and axillary temperatures will seldom be more than one-third of a degree, and frequently only one-fifth or one-tenth; if in the latter situation, all the requisite precautions to secure accuracy are observed. In this way 98·45 was obtained as the normal temperature in the axilla, and 98·75° in the vagina, when there were no disturbing circumstances. In three of the twelve cases taken for analysis in the present paper, where the comparison was made with the view of obviating some of the sources of error that might arise in investigations of this kind, the following results were obtained:—In one case, where, on the second day from delivery, the axillary temperature was 98·3°, some pain being complained of from slight perineal fissure, the local temperature was found to be only 98·5°. The next day there was a sudden rise in the axillary temperature to 103·3°, with much fulness and heat of the breasts; and although the perineal tenderness had disappeared, the temperature there was 103·7°. In a second case of perineal fissure, the cicatrisation of which was complete on the ninth day, the temperatures were 98·2° and 98·3° respectively. In a third case, in which this comparison was made five hours after delivery, the temperatures were 99·2° and 99·4° respectively. The observations of puerperal temperature, except in these special instances, are all taken as in ordinary illness, by placing the bulb of the thermometer in the axilla, care being taken to secure its contact with both surfaces of the skin, to maintain this contact perfectly for a sufficient time (which should not be less than three minutes), and to guard against loss of heat by evaporation from the surface or through insufficient covering. There is not only no difficulty, but considerable convenience, in carrying out this method of noting progress during the lying-in state; the time occupied in other necessary inquiries suffices for obtaining these indications, which, when satisfactory, save further trouble and anxiety, or, on the other hand, give timely warning that precautions are needed. The commotion and efforts of parturition itself, while confined within the limits of natural labour, cause but a

slight elevation of temperature, however great the sensation, of heat may be either to the patient or the observer; indeed in the axilla the thermometer will seldom reach its usual height. In the cases examined, the highest reading of a thermometer used in the ordinary digital examination was 99·9°; the lowest series in any case had only a range from 98·9° to 99·1°. In four cases the temperature was above 99° five or six hours after delivery, and in one case it was 99·5° twelve hours after delivery. The elevation of temperature thus occasioned immediately after delivery has invariably experienced a continuous decline; and in most cases, if not in all, the temperature has not only descended to the normal line, but in some cases it has gone considerably below it. This subsidence always takes place in the first twenty-four hours; it may be complete in twelve hours, or it may be prolonged into the second day. The lowest point reached in any case was 98·6°. The most constant and obvious disturbance of temperature in all the cases investigated is the rise which ushers in and accompanies the formation of milk. The commencement of this reaction is most regular, and it attains a certain prominence forty-eight hours after the birth of the child. When the secretion of milk is readily established, the temperature again undergoes a fall as sudden as the rise, which seems necessary to its formation. The period of this subsidence is most variable, and the aberrations which the line of temperature presents before it finally falls into the normal line fully warrant the care and attention at this time traditionally conceded. Of the twelve cases tabulated, three were primiparæ; in three chloroform was given; three were in every respect normal; and three were complicated: the complications being, in one case, convulsions before delivery; in another, breech presentation; and in the third, a cross presentation necessitating version, and this case was also one of twins. In one case lactation was avoided; all the others suckled their children during the whole time they were under observation. The highest temperature reached was 104·3° on the tenth day; on the thirteenth day it fell three degrees, and soon became normal. In this case there was healthy action of kidneys, skin, and bowels, and the secretion of milk was abundant. In two other cases, until the fifteenth day the temperature continued somewhat above the normal line; in all the other cases it had become steady at this line before the ninth day, and in some in which this line had been reached on the third or fourth day there was a tendency to undue depression. In the patient who did not suckle, the first rise in temperature was less sudden and the subsidence more gradual, and it was not at any time so high as in the other cases. To obviate sources of error due to diurnal variations of temperature, observations were taken in the majority of cases between nine and ten o'clock, both morning and evening, until the fifth day; at noon on many of these days, and in the afternoon on subsequent days. These all show a steady progression in the direction indicated; and although an oscillation is shown daily, or on alternate days in some of the higher temperatures, it is not until the puerperal state is nearly over, and convalescence well advanced, that the ordinary diurnal variations again become evident. In reviewing the influence of sleep, food, stimulants, and medicine, on the thermometric phenomena presented by the cases examined, it would seem that the first subsidence of temperature is chiefly favoured by sleep; that in this way the time of delivery, if happening in the later hours of the day, had an influence; that it followed sooner upon a labour of some duration than upon the more rapid, and also where there had been a slight hæmorrhage and no coagula remained. That during the period of low temperature, aid is best afforded by sleep, solid food, and warm diluents, and not by alcoholic stimulants. That aperients are not advisable in the first forty-eight hours of the delivery, as, during that period, they tend to check the formation of milk, and consequently delay the lowering of temperature; their action is more serviceable in the complications than in the ordinary requirements of the puerperal state. The disturbance of the pelvic viscera during parturition interferes with the natural action of the bowels, so that enemata are required, especially in those cases where solid food was freely taken from the first. That the judicious use of alcoholic stimulants has a most marked influence during the puerperal state. In the relations of this to the indications of the thermometer, three rules are provisionally offered. 1. That while the temperature continues high, and the secretion of milk is not fully established, stimulants may be useful and even necessary. 2. That when the secretion of milk is free, and the temperature still high, stimulants are unnecessary and may be injurious. 3. That when the temperature has fallen, and the secretion of milk is free, stimulants are safe and necessary adjuncts to food. Practically this last conclusion alone is of considerable convenience, and, when these conditions occur, the patient can generally be left with safety. In none of the cases were alcoholic stimulants given during the first three days, and, in the case where suckling was not attempted, they were abstained from altogether. The conclusions which may fairly be deduced from the facts here given are—1st. That natural labour is not attended by any great exaltation of the temperature of the body. 2nd. That after labour there is always a fall in temperature. 3rd. That there is a subsequent rise in temperature, which has for its natural termination the secretion of milk. 4th. That observations of this kind are desirable as illustrative of the principles that should guide us in the management of the puerperal state.

Dr. Wiltshire said he was glad that the attention of the Society had been drawn to the subject, from which he believed important information would be derived; but he demurred to Mr. Squire's conclusions as being based upon such a small number of cases. He referred to the observations already made by Dr. Von Grunewaldt, of St. Petersburg, upon 432 cases, and to observations made by himself on twenty-four cases during the latter months of last year. In some of these cases the temperature, as taken in the axilla, was actually below the normal standard, and the difficulty in arriving at a satisfactory conclusion respecting the normal variations of temperature was very considerable. On the whole, his observations agreed with those of Von Grunewaldt and Wunderlich (whom Von Grunewaldt quotes), as giving a mean of 98° F. as the temperature of lying-in women. Dr. Wiltshire then referred to the absence from Mr. Squire's paper of any notice of the ratio of the pulse and respiration, and of the influence of operative procedures. In his twenty-four cases, three were forcep cases, one a breech, one a footling case, and in one labour was complicated by an ovarian tumour, and the patient died five weeks after delivery. In this case after the third day the temperature was never below 101°.

Dr. Graily Hewitt considered the observations of Mr. Squire of the highest value and importance. Doubtless further observations would be made by others, but so far the results obtained afforded valuable indications. He was particularly interested in the question of the diet of childbed, and Mr. Squire's results afforded confirmation of a point he had always strongly contended for—viz., the necessity for administering nourishment and food in good quantity immediately after the labour; for when such support was not given the temperature rose to an unnatural height, and the return to the normal temperature was impeded and retarded in proportion. The positive data obtainable by the thermometer would, he believed, prove exceedingly valuable as indications for treatment, just as Mr. Squire had pointed out. In one point he would venture to differ from Mr. Squire—as to the nature of milk abscess. He believed that milk abscess arose always from milk retention, and that high temperature connected with milk abscess did not indicate therefore inflammation of the breast.

Dr. Sansom thought the paper of great value and interest. He did not think, with one of the preceding speakers, that, in such an investigation as this, conclusions were valueless unless founded on a large number of observations. In the study of temperature it was more valuable to follow each case *per se*, and rather to investigate the causes which led to an increase or decrease of temperature, than to strike a mean from a number of observations and endeavour to fix the line of what shall be called a normal or an abnormal state. This was illustrated by the author's diagrams, which showed that what is the natural temperature in one case is not so in another; and collateral observation showed in each instance fair reasons for the variations. It was strange that no rise of temperature should be noted during the stages of labour; for the production of heat was a necessary corollary from the physical conditions. Where there is inordinate muscular action, there must be an increase of heat; though it does not follow that this must be necessarily detected. The debasement of temperature, uniform in all or nearly all the cases on the second day, was an interesting fact, corroborating *à priori* reasonings.

After a few remarks from Mr. Haviland,

Mr. Squire replied, and, in answer to the objections of Dr. Wiltshire, stated that the ratio of the pulse and respiration was noted in the records of each case. In the one with an unusually high temperature, while this was at 102° and 103°, the respiration was not accelerated (it was 18 to 19 in the minute), and the pulse but slightly accelerated (98 to 116). Again, though more numerous cases might be obtained in a lying-in Hospital, there was an advantage in examining cases

where all the conditions are known, where the previous health had been under observation, and where the hygienic conditions were unexceptionable. Agreeing with the remarks of Dr. Hewitt as to the mode of production of milk abscess, yet the way in which the milk ducts were obstructed had to be considered. This might be occasioned by inflammatory action outside the glandular structures, or by fibrinous exudation from the interior of a duct. Early indications of these dangers were given by the thermometer. In one of the cases a sudden rise on the twelfth day led to the discovery of a blush of redness under the left breast, which otherwise might not have been noticed until too late to obviate its consequences; and, in two other instances, by attention to the indications of the thermometer and the rules adopted, patients have been able to nurse well who on previous occasions had suffered from abscess in the breast. With respect to Dr. Sansom's observations, it was certain that though there might be a great amount of heat given off during the exertions of the second stage of labour, there was no great elevation of the general temperature of the body. In conclusion, Mr. Squire would remark, that did these observations do no more than indicate to the Practitioner which of the cases under his care required watching, and which could be safely left without a visit on days when engagements were pressing, this would be a sufficient equivalent for the time spent in making them; while to the patient they were never irksome, but rather afforded her a sense of satisfaction.

A paper, by Mr. Robert Ellis, was read on

THE DEFECTS OF ORDINARY SPONGE TENTS; WITH AN ACCOUNT OF A NEW KIND OF CARBOLISED SPONGE TENT.

The author, after adverting to the serious inconveniences and occasional danger incident to the use of the common sponge tents, proceeded to describe a new kind introduced by himself under the name of carbolised sponge tent. In this invention sponge is still retained as the dilating agent, but the tent is prepared by a peculiar process which renders it incapable of putrefaction, without diminishing its value as a dilator. This is accomplished by introducing into the core of the tent several threads of cotton wick steeped in carbolic acid; and after the sponge is rolled into its proper shape, it is then immersed in cocoa butter to which a certain quantity of glacial carbolic acid is added. The disinfectant properties of this agent completely protect the tents, and they are withdrawn in an inodorous state even after a stay of twelve or eighteen hours in the cervical canal. The shape and size of these sponge tents also differ from the ordinary kind, which are both clumsy and dangerous, as well as disgusting, in their use. These are spindle-shaped, and thus accurately adapt themselves to the fusiform character of the canal which they are intended to dilate. They require no support when *in situ*, but, by virtue of the immediate fusion of the enveloping material, they take to their work immediately, and are firmly kept in position. The author stated that he had a large experience of their utility and value; and that they could be procured, ready for use, from Messrs. Bradley. Mr. Ellis also exhibited an Introducer for Sponge Tents. This instrument consists simply of a slender uterine sound tapered to a fine point, which is thrust up into the tent. A short distance from its extremity a small flat metal collar is attached, on which the sponge tent rests, so as to be firmly supported while it is pressed into its place. Mr. Ellis spoke in high terms of the great handiness of this contrivance, which may be obtained of Messrs. Meyer and Meltzer.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 19, 1867 :—

Jeremiah McCarthy, London Hospital; Charles Gray Montgomery Lewis, Sedgley, Birmingham; George Mickley, Bethlem Royal Hospital.

The following gentleman also on the same day passed his First Examination :—

Charles Jones, Middlesex Hospital.

APPOINTMENTS.

Fox, J., M.R.C.S.E., has been appointed Consulting Surgeon to the Dorset County and Weymouth Royal Eye Infirmary.

Hollis, W. A., M.A., M.B., etc., has been appointed Physician to the Chelsea, Brompton, and Belgrave Dispensary.

Pattinson, T. B., M.R.C.S.E., has been appointed Assistant Medical Officer to the Cornwall County Lunatic Asylum, Bodmin.

BIRTHS.

Barnett.—On September 22, at Ardmore-terrace, High Holywood, county Down, the wife of J. M. Barnett, M.D., Surgeon H.M.'s Bombay Army, of a son.

Davson.—On September 20, at 9, Carlton-terrace, Kilburn-park, the wife of S. H. Davson, M.D., of a daughter.

Elin.—On September 22, at Hertford, the wife of G. Elin, M.D., of a son.

Read.—On September 23, at The Limes, Tillingham, Essex, the wife of C. Read, M.R.C.S., of a daughter.

Scriven.—On August 14, at Lahore, India, the wife of J. B. Scriven, Principal of the Lahore Medical College, of a daughter.

Shapland.—On September 24, at 4, Park-villas, Woodville-road, Thornton-heath, Croydon, the wife of J. Du Shapland, M.R.C.S.E., of a son.

MARRIAGES.

Fowler—Welby.—On August 17, at the Cathedral, St. Helena, by the father of the bride, Charles H. Fowler, Esq., Colonial Surgeon, to Caroline, fourth daughter of the Lord Bishop of St. Helena.

Manning—Haynes.—On September 25, at St. James's, Piccadilly, H. J. Manning, B.A., M.R.C.S., of Laverstock, Salisbury, to Ellen Frances, eldest daughter of J. Haynes, Esq., of Laverstock, and Pall Mall, London.

Pavey—Paull.—On September 19, at Kingstone Church, G. Pavey, M.R.C.S.E., L.S.A., to Clara, eldest daughter of J. W. Paull, Esq., of Knott Oak House, Ilminster.

DEATHS.

Clark, J., L.S.A., of Acton-place, Kingsland-road, on September 8, aged 54.

Gibson, R. C., M.R.C.S.E., on September 18, aged 26.

Hare, S., F.R.C.S., late of Langham-place, at 95, Gower-street, Bedford-square, on September 16, in his 84th year.

Jones, W. G., M.R.C.S.E., of Neath, Glamorganshire, on September 4, aged 54.

Little, J., B.A., M.B., Surgeon R.N., on board H.M.S. *Excellent*, on September 23.

Price, W., F.R.C.S.E., at Leeds, on September 20, in his 82nd year.

Richardson, J. F. H., M.B., Staff Assistant-Surgeon, at Boston, Jamaica, on August 20, in his 27th year.

Russell, G. M.R.C.S.E., at Aberdare, Glamorganshire, on September 21, aged 26.

Simpson, W., M.R.C.S.I., etc., at Sligo-house, Black River, Jamaica, on July 21, in his 35th year.

Urquhart, J., Surgeon R.N., at Bembridge, Isle of Wight, on September 20.

VACANCY.

Ormskirk Union.—Medical Officer.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Burton-upon-Trent Union.—Mr. E. W. Witton has resigned the Lullington District; area 20·7; population 623; salary £10 per annum.

Wrexham Union.—Mr. Alfred Eyton has resigned the Fourth District; area 15,941; population 3209; salary £35 per annum.

APPOINTMENTS.

Frome Union.—James E. Bennett, M.D. St. And., M.R.C.S.E., L.S.A., to the Kilmersdon District.

Neath Union.—James Lewis, L.R.C.P. Lond., F.R.C.S.E., to the Glyncorrwg District.

Newark Union.—William B. Irving, M.R.C.S. Edin., L.S.A., to the Foston District.

Peterborough Union.—William N. Symonds, L.S.A., L.F.P. and S. Glas., to the Crowland District.

South Molton Union.—Frederick R. Fairbank, L.R.C.P., M.R.C.S.E., to the Twelfth District.

The College Medal.—It appears from the Calendar of the Royal College of Surgeons, which has just been published, that the honorary medal of the institution has been presented to only four of its members since its establishment—viz., in 1800 to the late Professor James Wilson, in 1822 to the late James Parkinson, and to the following gentlemen, who still live to enjoy the possession of this rare honour:—Mr. Joseph Swan, a member of the Council, who received it in 1825, and Dr. George Bennett, F.R.C.S., of the University of Sydney, N.S.W., upon whom it was conferred in 1831.

The Sultan's Gift.—It will be recollected that his Imperial Majesty, the Sultan, before leaving this country, deposited with the Lord Mayor the sum of £2500, to be distributed among the poor of the metropolis, as a token of his appreciation of the welcome he had received during his visit to London. The Lord Mayor has bestowed the money upon charitable institutions, and amongst them has included several Medical charities, as the Infirmary for Children, the Guy's Maternity Charity, the City of London and East Dispensaries, the Farringdon Dispensary, the Royal South London Dispensary, the Metropolitan Dispensary, the Royal General Dispensary, the City Dispensary, the Truss Society,

the Orthopædic Hospital, the Cripples' Home, Kennington, the Convalescent Home (Mrs. Gladstone), to which £50 each has been sent, and the Hospital for Consumption, Victoria-park, £100.

STATISTICS OF THE ROYAL COLLEGE OF SURGEONS.—From the annual report of the Council of the Royal College of Surgeons of England, which is published in the third issue of the Calendar of that institution, it appears that there are now exactly 1320 Fellows, in whom, as our readers know, is invested the election into the Council of members of their own class. This body is composed of 344 gentlemen who have obtained the Fellowship by examination, 233 on whom the honour was conferred at the establishment of this distinction, and 743 elected by the Council on the recommendation, in each case, of six Fellows. The number of those who attended and recorded their votes at the last election into the Council was 301—viz., 132 Fellows by examination, 44 honorary, and 125 by election. There are about 15,000 Members, of which number 976 have also obtained the Midwifery licence; the number of candidates seeking this additional qualification is greatly decreasing, as in 1865 there were 960. This is the case also, in a remarkable degree, with the Licentiates in Dental Surgery, of whom, in 1864, there were 280, whereas the present Calendar only exhibits 293, an increase of 13 in three years. The Court of Examiners for the Diploma of Membership consists of ten members elected by the Council from the Fellows of the College, but up to the present time the selection has been confined to the ranks of the Council. In addition to the examination just mentioned, there are others by the same body for the Fellowship and for the examination of Assistant-Surgeons in the Royal Navy on their promotion in that branch of the public service. During the past collegiate year the Court has held four meetings for the examinations for the Fellowship, when they passed 23 out of the 28 candidates, and forty-nine meetings for the primary and pass examinations for the Membership, at which 423 candidates presented themselves; of this number 355 were successful, and the remaining 68 were referred to their studies for six months. During the year there were four meetings of the Midwifery Board, at which 60 candidates were examined, 44 of whom passed. The Board of Examiners in Dental Surgery consists of six members elected by the Council for five years—viz., three members of the Court of Examiners of the College, and three other persons skilled in Dental Surgery. During the year ten candidates have been examined for this diploma, all of whom passed to the satisfaction of the Board. It appears that nine Assistant-Surgeons presented themselves for examination for promotion to the rank of Naval Surgeon, all of whom were reported to the Admiralty as having passed to the satisfaction of the Court. The Council, or governing body of the College, consists of twenty-four members, three of whom, when no vacancy either by resignation or death has occurred during the year, go out in rotation annually in July, but are eligible for re-election by the Fellows of the College. The meetings of the Council are generally held in each month of the year, except that of September. During the past collegiate year there have been thirteen meetings. The financial statement of the affairs of the College is also interesting. It appears that from Midsummer-day, 1866, to Midsummer-day, 1867, the receipts amounted to £12,409 3s. 11d., derived principally from fees paid by candidates for the various diplomas granted by the College, and amounting to £9193 6s. The purchase by the Council of freehold property, no doubt with a view ultimately of enlarging the museum and library, appears to have been eminently advantageous, as the rents derived from the two houses adjoining the College produced during the past year £949 18s. 2d. The funded property of the institution does not appear to be large, judging from the amount of dividends received on investments in Government securities, which is put down at £1219 2s. only. The elections of Members into the Fellowship of the College, which formerly yielded a large revenue, only produced during the past year £105. The annual disbursements amounted to £11,511 12s. 10d., being a decrease of expenditure compared with the preceding year of £1129 8s. 6d.; the largest item in the disbursements is for fees paid to the members of the various Courts of Examiners and Council, which amounted to £3894 7s. 6d. The great and increasing staff of the College absorbed in salaries and wages £3088 11s.; and pensions to the widows and children of old servants figure to the amount of £498 12s. The Government taxes, stamps, and parochial rates amounted to the large sum of £1099 2s. 6d. The Council of the College granted during the year £319 16s. 1d. for prizes, lectures, and orations. Notwithstanding these heavy disbursements there appears to be a balance at the bankers' of £397 11s. 1d. For the first time the collegiate authorities publish an account of the funds of which they are trustees; from this statement it appears that the Hunterian Fund amounts to £1684 4s. 4d., the Clift Annuity to £1518 6s. 6d., the Gale's Annuity to £689 16s. 5d., Arris' Bequest to £510, the Jacksonian Fund to £333 6s. 8d., Sir Charles Blicke's bequest to the Library £309, making a total of £5335 13s. 11d. The senior member of the Council is Mr. Joseph Swan, so deservedly well known by his valuable works on the nervous system, for which he was awarded in 1825 one of the only four gold medals ever presented by the Council, of which body Mr. Swan was elected a member in 1831. This gentleman and Mr. South are now the only life members of the Council. The senior member of the Court of Examiners is Mr. John Flint South, who was elected in 1840. This gentleman has twice filled the President's chair—viz, in 1851 and 1860. The only other member of the Court upon whom this honour has twice been conferred is Mr. James Luke—viz., in 1853 and 1862. The other members of the Court who have occupied this high position are Messrs. F. C. Skey in 1863, Thomas Wormald in 1865, Richard Partridge in 1866, and John Hilton for the present collegiate year. A singular mortality appears with regard to the students in human and comparative anatomy, as out of the seventeen gentlemen who have filled the office more than half have been removed at early ages. In the official department the oldest employé is Mr. T. M. Stone, who appears to have held office for thirty-five years, having been appointed assistant-librarian so long ago as June, 1832.

CHOLERA IN THE UNITED STATES ARMY DURING 1866.—The report of the Surgeon-General just issued observes that, although the total number of cases may not be great, yet it bears a large proportion to the number of the troops exposed. Out of a total mean strength of 12,780 men, there occurred 2708 cases, with 1207 deaths. Of these there were 1749 cases and 706 deaths among 9083 white troops, and 959 cases, with 501 deaths, among 3697 coloured troops. From the summary of the tables appended to the report, it results that during the six months of the prevalence of the epidemic there were reported for the white troops 192·6 cases of cholera, with 77·7 deaths per 1000 of strength; 741·8 cases, with 7·5 deaths per 1000, of diarrhœa; and 1328 cases, with 15·5 deaths per 1000, of all other diseases. For the coloured troops, the number of cases of cholera was 259·4, with 135·5 deaths; 574·5 cases of diarrhœa, with 3·5 deaths; and 833·9 cases of disease from other causes, with 11·4 deaths per 1000. The deaths from cholera were 1 in 2·5 cases among the white troops, and 1 in 1·9 among the coloured. The reporter pursues in minute detail the course of the disease as radiating from the points where it first appeared, and concludes with the remark—"On the whole it must be admitted that the general tenor of army experience during 1866 is strongly in favour of quarantine, and especially points to the danger incurred by the distribution of recruits or other bodies of men from infected points." Ample proof is given in the report of the power of hygienic precautions in keeping the disease at bay.—*Boston Med. Journal*, August 15.

ANECDOTE OF BERTHOLLET.—This celebrated *savant*, in the most dangerous times of the Republic, sustained his fearless love of truth. Some days prior to the 9 Thermidor, a sandy deposit was found in a barrel of brandy intended for the army. The contractors, suspected of poisoning, were immediately arrested, and the scaffold was already prepared. Berthollet, however, examined the brandy, and reported it free of all mixture. "You dare maintain," said Robespierre to him, "that that brandy does not contain poison?" As his reply, Berthollet drank off a glass, saying, "I never drank so much before." "You have plenty of courage," exclaimed Robespierre. "I had more when I signed my report," replied the chemist, and here the matter terminated.

A GOOD IDEA MISSED.—The French National Assembly, in its resolutions concerning weights and measures passed in May, 1790, among other measures for the equalisation of these, which were then in even greater confusion and contradiction in France than they are now in our own country, proposed the following:—"Decreed that the king should be supplicated to communicate with his Britannic Majesty, and beg of him to induce the British Parliament to concur with the National Assembly in fixing a unity of weights and measures. That

consequently, under the auspices of the two nations, the Commissioners of the Academy of Sciences may meet an equal number of members selected from the Royal Society in some place that shall be found mutually convenient."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A. C., Aberystwith, St. John's Wood.—Consult the *Medical Times and Gazette* for March 3, 1866, p. 239, and for August 4, 1866, p. 120. If more information be required, write to the Chief Clerks, Army Medical Department, Whitehall and Naval Medical Department, Somerset-house.

J. Mortimer, Esq., Pippinford-park, Uckfield, Sussex.—The error in reference to the non-completion of Dr. Costello's "Surgery" has already been corrected by a correspondent.

The Chateau Belle Vue Sea-Bathing Establishment, Margate.—This is a seaside boarding house for invalids of the poorer classes. The proprietor, Mr. R. Perry, undertakes to supply the adult invalid with a liberal and substantial diet, Medical attendance, sea bathing, and any extras which the Medical Superintendent may deem necessary, for the very small sum of 16s. a week. Such an institution confers a great boon on the artisan class who have, or ought to have, a proper dislike to be the recipients of charity. The proprietor appeals to the Medical Profession for support and recommendation.

Juvenis.—You will find some information on the subject of fees in the *Medical Times and Gazette*, February 13, 1864, page 191. Also the Sydenham District Medical Society has just published a "Tariff of Medical Fees." Write to Dr. Bright, the Secretary.

S. M. D., Devonport.—The regulations are explicit. They state that Professional education will *not* be recognised until a preliminary examination in Arts, etc., has been passed. In your case, if successful at the December examination, you could at once enter on your Professional studies, and thus only lose half a session.

DR. BEATTY'S FORCEPS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should feel obliged if Dr. Beatty would, in an early number of your journal, publish the name of an instrument maker from whom his midwifery forceps can be obtained accurately made.

Dr. Beatty's excellent description and illustration of the use of his forceps in your last number, in reply to some strictures of Dr. Barnes, will, I think, induce many to be desirous of obtaining this instrument of correct dimensions, and I for one should be glad to know from whom I can obtain the forceps, as designed and approved of by the inventor.

I am, &c. S. BARNETT.

Brook House, Leominster, September 23.

COMMUNICATIONS have been received from—
Dr. EASTLAKE; Dr. HUGHLINGS JACKSON; Mr. F. J. GANT; Dr. B. W. RICHARDSON; Dr. J. W. OGLE; Dr. CORFE; Mr. J. CHATTO; Mr. J. B. POWELL; JUVENIS; Mr. HUTCHINSON; Dr. TUCKWELL; Mr. ILIFFE; Mr. LEACH; Mr. T. R. WRIGHT; Dr. KIDD; Mr. BARNETT; Mr. MORTIMER; Dr. DOBELL; Dr. HASTINGS; Dr. NELSON; Mr. J. D. BROWN; Mr. COATES; Dr. MURRAY; Dr. HOOPER.

BOOKS RECEIVED—
Transactions of the Epidemiological Society, Vol. II., Part 2—An Essay on the Health of Lord Bacon—Ophthalmic Hospital Reports, Vol VI., Part 1—Journal of Cutaneous Medicine, Vol 1., No. 3—Cotting on Vaccination and Revaccination—Gazette Hebdomadaire—Ellis's Dissections, Parts 28 and 29—Thorley's Farmer's Almanack—Wormley's Micro-chemistry of Poisons.

NEWSPAPERS RECEIVED—
Medical Press and Circular—Laboratory—West Surrey Times—Medical Press and Circular—Poor-law Chronicle.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 21, 1867.

BIRTHS.

Births of Boys, 1121; Girls, 1094; Total, 2215.
Average of 10 corresponding weeks, 1857-66, 1825·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	596	542	1138
Average of the ten years 1857-66	576·7	548·3	1125·0
Average corrected to increased population..	..	..	1238
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	8	3	..	3	4	10	1
North ..	618,210	1	3	13	1	3	9	31	1
Central	378,058	..	8	7	..	2	8	7	2
East ..	571,158	5	4	4	1	5	9	25	6
South ..	773,175	6	2	7	1	3	14	41	2
Total ..	2,803,989	15	15	84	3	16	44	114	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·035 in.
Mean temperature	54·8
Highest point of thermometer	68·3
Lowest point of thermometer	44·2
Mean dew-point temperature	48·3
General direction of wind	N. & N.N.E.
Whole amount of rain in the week	0·16

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 21, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Sept. 21.	Deaths. Registered during the week ending Sept. 21.	Deaths. Corrected Average Weekly Number.*	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2215	1421	1138	68·3	44·2	54·8	0·16	16
Bristol (City) .	165572	35·3	114	74	163	65·7	43·0	54·3	0·04	4
Birmingham (Boro')	343948	43·9	253	167	187	64·4	41·6	54·1	0·52	53
Liverpool (Borough)	492439	96·4	391	285	272	64·0	43·4	54·2	0·08	8
Manchester (City) .	362823	80·9	263	205	†241	67·0	38·0	52·0	0·24	24
Salford (Borough) .	115013	22·2	84	58	75	66·0	37·9	52·3	0·27	27
Sheffield (Borough).	225199	9·9	202	119	121	64·9	42·0	51·7	0·06	6
Leeds (Borough) .	232428	10·8	204	118	167	67·0	38·5	53·6	0·00	0
Hull (Borough) .	106740	30·0	79	49	81	64·0	37·0	51·9	0·17	17
Nwcstl-on-Tyne, do.	124960	23·4	59	66	81	60·0	46·0	51·6	0·42	42
Edinburgh (City) .	176083	39·8	103	85	77	60·7	41·0	51·6	0·10	10
Glasgow (City) .	440979	87·1	343	257	185	60·9	34·3	51·1	0·19	19
Dublin (City and some suburbs) .	319210	32·8	151	†157	148	66·7	35·6	53·1	0·08	8
Total of 13 large Towns . .	6187764	34·8	4466	3061	2828	68·3	34·3	52·8	0·18	18
	(1863)				Week ending Sept. 14.	Week ending Sept. 14.				
Vienna (City) .	560000	..	..	..	271	..	..	67·1	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·035 in. The barometrical reading increased from 29·76 in. at the beginning of the week to 30·21 in. on Wednesday, 18th, decreased to 29·97 in. on Thursday, 19th, increased to 30·05 in. on Friday, 20th, and was 29·90 in. on Saturday, 21st.

The general direction of the wind was N. and N.N.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 60·1°.

APPOINTMENTS FOR THE WEEK.

September 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

30. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

October 1. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

2. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

OBSTETRICAL SOCIETY OF LONDON. 7 p.m.: Council Meeting. 8 p.m.: Professor Lazarewitch, of Kharkoff, "Induction of Premature Labour by Injection to the Fundus of the Uterus." Dr. Madge, "Case of Spina Bifida, with Talipes Varus of both Feet." And other Papers by Dr. Routh and Mr. Curgenven.

3. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

4. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

ON LONDON MEDICAL TEACHING.

BEING A PART OF AN INTRODUCTORY LECTURE TO THE COURSE OF PHYSIOLOGY AND OF GENERAL AND MORBID ANATOMY, DELIVERED AT KING'S COLLEGE, LONDON, OCTOBER 2, 1867,

By Dr. LIONEL S. BEALE, F.R.S.

To understand fully the system of Medical education pursued at the present time is difficult. Any one who attempts to master the details will find much that is strange and contradictory. Many things will appear to him superfluous, and he will be astonished at most glaring and obvious defects. Examinations repeating themselves over and over again, because one examining board has no confidence in the examination as conducted by another. Examiners appointed for life, wedded to old views and old traditions, resisting innovation to the last. Teachers educated, if not actually born, since the examiners became old, teaching perhaps only for a few years, whose heart is in the new order of things, who love progress, and yearn for improvement. Students terribly confused by the conflict of opinions, compelled to satisfy the examiners, and yet inclined to be led by the most progressive teachers; in too many instances spending their student days in a perfectly neutral state, hoping thus to escape giving offence to the party of obstruction, which gives them legal right to practise, or to the party of progress which has no legal rights to give, but only hopes to make them well-educated, earnest, thoughtful Practitioners.

It may be interesting, and perhaps not without some advantage, if I devote my first lecture this year to the consideration of some matters connected with our method of teaching, the system of certificate-giving and preparing for examinations, especially for that examination which almost every one here must pass—by passing which nearly 400 students become annually qualified to practise the Medical Profession.

For more than twenty years Medical education has been in a state of transition. A new order of things has been slowly but firmly establishing itself, while the old one, at least in many important respects, retains its ancient character, and sternly refuses to adapt itself to the exigencies of modern times.

In Medicine, as in every department of science, there is continual change, and there ought to be continuous progress. But as men in positions of authority are for the most part opposed to change, old systems of teaching and very defective methods of examining prevail for a long time after change has been rendered desirable by advancing knowledge. Progress and change in science are so gradual, and occur so quietly, that they are hardly to be observed. Alterations in systems of teaching science, and in the mode of testing the knowledge acquired by the student, ought to be equally steady and uninterrupted; but instead of this they occur very rarely, at very long intervals of time, and are altogether out of the ordinary course of things. But, in spite of dismal prophecies and active opposition, changes in every department of education are from time to time happily enforced. And if this were not the case each generation of students would be instructed in the scientific discoveries of that preceding it, and would be thirty or forty years behind the times in which it lived. Seldom perhaps has greater difference of opinion existed on the subject of Medical education than at this present time, and seldom were decided changes more urgently required.

It is not so very long ago that it was necessary for a student who desired to study Medicine to attach himself to one who was considered to be a master of the art. And the master taught the pupil to give this particular drug, or combination of drugs, in such and such a malady; to bleed or depress in this disease; to support or to stimulate in that. In after life the pupil, himself a master, taught his pupils in the same way, and when called upon to give a reason for a plan of treatment replied, "I learnt it from the great Physician So-and-so, and have adopted it ever since I was a pupil" If its value was still questioned, he would say, "By its help I have gained the confidence of my patients during a long life. It has proved a successful plan. Its value has been confirmed by experience, and the soundest Practitioners I am acquainted with have invariably adopted it with success. What, then, has been believed in by those great men who preceded me, and has been sanctioned by the experience of my contemporaries, it is not for me to disturb or doubt." But now how changed is all this! Respect for mere authority in Medicine is becoming a sentiment of the past. Almost every Medical statement is questioned; every reputed remedy is doubted. Fundamental beliefs are overturned, and a scepticism prevails through all ranks which threatens to obliterate the true things which have been handed down to us, as well as the false.

Ungoverned scepticism, associated with a dislike of work and knowledge, will, it is to be feared, simply excite a reaction, and insure, as is unquestionably the case in the treatment of disease, the wide diffusion of the most barefaced charlatanry, and contribute immensely to the sale of nostrums and the deception of the credulous. But, on the other hand, this restless and sceptical spirit may be associated with a love for learning and real work, and in that case becomes a stimulus to inquiry. Doubt concerning the truth of existing views must precede the discovery of new truths. Medicine and science are both advanced by the sceptical spirit which is too often cruelly crushed by those who do not understand it, and treated as if it were a real evil. Worse than this, it is sometimes abandoned to satiate itself with doubts, instead of being softened by intelligent sympathy, regulated by careful training, and satisfied with new knowledge. Scepticism and doubt must always exist in science. They excite progress, and ought not to be repressed. In science, authoritative assertions will never satisfy the craving for new knowledge. And old systems of tuition can seldom be adapted to new methods of inquiry.

In these days men are ready and anxious to learn, but the determination to refuse to accept assertions unless supported by reasons and explanations becomes stronger every day. There is as much respect for the thorough teacher as there ever was, but the man who tries to pass off assertions for information, or to hide ignorance by reticent importance, is very soon found out and classified with other idle pretenders.

Thorough explanation, clear description, oral and written examination—for all these there is a demand now-a-days, and there is no department of human knowledge in which these things are more necessary than in Medicine. If an improved and more thorough system of Medical teaching be not soon established in our schools, and sanctioned by authority, men of intelligence will seek to obtain in other walks of life the opportunities for scientific study which Medicine is so particularly adapted to supply. For some time past new fields have been opened out for the employment of scientific minds, and if the contracted principles which have so long impeded Medical progress in this country do not soon give place to more liberal views, much valuable labour will be diverted into other channels.

In teaching Medicine, that most changing, if not progressive, of all departments of natural knowledge, the old plan of depending entirely upon formal lectures still prevails. The student is supposed to listen, but is not asked to furnish evidence that he has learnt anything. Teachers are discouraged from teaching, for the great majority of students are not required to learn. Lecturers on certain branches of science have to give a certain minimum number of lectures. If they give more, no one thanks them, and no one inquires whether they teach properly, or whether their pupils can really learn much from the lectures they are compelled to attend. In a few of the Medical classes in this College we have long adopted the plan of holding a few written examinations, but although of immense value to students, they are not popular, nor are they encouraged by examining boards. They give the teacher increased work, and, as regards the ordinary pass examinations, are, I fear, almost useless to the student; and yet I am quite sure that, instead of giving a few written examinations in the course of the session, we ought to give a paper in every class at least once a week. Tutors should be appointed in all the classes, whose duty it should be to explain to you everything that presents difficulties. This is one way in which our teaching would be made a reality, and you would have reason to be well satisfied with the progress you made. But at present the student is so confused that he knows not what he ought to learn and what is unnecessary. His work and duties in the Medical School are not clearly defined. He knows, indeed, that he will have to pass an examination at least in anatomy, a little physiology, and Surgery, but he is not sure that he will be examined in any other subject, or that his examiners really desire that he should learn chemistry, therapeutics, or Medicine. At the same time he has some dim notion that it is as well that a man who is to diagnose and treat disease should get up something besides anatomy and Surgery.

When a student enters a Medical school, he hears lectures in which statements are made which he does not understand, and which he is perhaps told are open to doubt. Interested at first, he desires to inquire further, but finds that it is not the fashion to question the teacher, or that only a few fellows who want to be thought extra good or hard-working do so. He is assured that the questions considered have no bearing whatever on the practical work of his Profession, and are only of interest theoretically, that his examiners neither know nor care anything about them, and that most of the men think them rubbish. Thus convinced, he goes his way, knowing that next year the same thing will come over again, and he will have a second chance of learning it, or, what I fear too often happens, the student soon begins to feel aggrieved that the teacher should desire that he should learn very much that will be useless to him when he comes to pass his examination, and considers it an injustice that he should be compelled to enter to courses which are for the purpose of passing through the portals of the Profession, absolutely useless to him.

The objections and difficulties referred to are particularly experienced by the student in connexion with those subjects which it is my duty to teach in this College - physiology, minute and morbid anatomy, and clinical Medicine. Examining boards give the teachers no information whatever upon the kind of teaching which they consider should be pursued; they will not even give us an outline of the points they consider most essential. You may conceive the inconvenience of this when many of the examiners are twice as old as the teachers. I do not hesitate to say that, in such a subject as physiology, the present is a most unsatisfactory state of things. A full course of lectures on physiology would extend over two or more winter sessions. The subject is so comprehensive, that no one man could learn or teach all departments equally well. The teachers should therefore be informed what the student will be required to know. It is true some idea of the relative importance of descriptive anatomy and physiology may be formed by the fact that every lecturer is desired by the College of Surgeons to give not less than four lectures in each week on anatomy, and not less than two on physiology. Most teachers, however, give a much greater number of lectures than they are required to give. Dr. Sharpey has always given six lectures a week on physiology at University College, while here it has been the custom to give four lectures. In all the London schools, more lectures per week are given on physiology than required by the College of Surgeons; while on the other hand, in several of our schools, the minimum number of lectures on anatomy required by the College is actually given. It is therefore evident that no London lecturer on physiology considers two lectures a week sufficient, while many anatomical lecturers think four on anatomy enough.

But not the least remarkable peculiarity of the existing system is, that you must enter to several courses of lectures upon subjects which will form no part whatever of your examination. Certificates are given by the teachers to say that you have *duly attended* the lectures in question—not that you have learnt anything. In fact, we may give the number of lectures required, and you may attend as a mere matter of form, and thus obtain the certificate.

It would, I suppose, be asserted by those who defend the present system, that examination alone cannot be a sufficient test of a man's Medical knowledge—that a student might gain knowledge sufficient to enable him to pass the examination in some objectionable way, as by cramming up from books what he ought to have learnt from actual observation. But why a student should be compelled to go through the form of being present at hundreds of lectures on subjects in which it is not considered necessary to examine him it is most difficult to understand. You have to register your presence in London on certain days, a record is kept in many schools of your attendance on lectures, your teachers have to sign a certificate to prove you have attended, and, after all, these troublesome forms do not prove that you have learnt anything. A fair examination would show at once whether you had acquired the requisite information, and all these useless and troublesome forms might be entirely dispensed with.

That the system is a terrible failure is known to examiners, teachers, and students. The opinion is pretty generally entertained by students that it is possible to pass the College of Surgeons without learning anything whatever from the authorised teaching, provided the student attend for a time, before he goes up to examination, a certain extra course, and work hard during the time. And it has happened that a man who has worked most conscientiously at the regular course of instruction, and has even gained honorary distinction, has been rejected at the College examination; while, on the other hand, many a student, who has worked but little, or not at all, has passed, and has even been highly complimented. When I was a Medical student, the opinion was very generally held that if you wanted to make pretty sure of passing you must indulge in a little extra coaching, no matter how hard you had worked at the regular subjects. In fact, in those days there were teachers who had special information to impart, which was highly appreciated by the examiners, but which few Hospital teachers were up to, and which was not to be obtained from the most celebrated Medical works. I know not how this may be at the present time, but it is quite certain that a man may distinguish himself highly in his school, gain prizes, acquire the good opinion of his teachers, and be looked upon by his contemporaries as a first-rate man, and yet fail to pass the examination for the Membership of the College of Surgeons.

Much has been said, and much may be said, against what is termed "grinding." But surely it has been proved beyond question that, by the tutorial system pursued by many of the most successful extra-school teachers, students are taught in a few months more than they have learnt at a good school in as many years. Why, then, do not the best teachers so modify their system of tuition as to make it really useful to the majority of students? Is there anything undignified in being useful, in performing work which it is supposed you undertake to perform? I confess I feel most dissatisfied with the existing state of things. You might say to me, "We enter to your class with the express object of learning physiology, in order that we may pass the College of Surgeons. In order to obtain your certificate, we are compelled to attend, much against our inclination, between seventy and eighty lectures. We have good reason for thinking that all we want to learn could be taught us in forty, or perhaps in twenty lectures. If we do not listen to a word you tell us, we can easily get up as much physiology as is required without your help. You do not inform us how much of what you say is absolutely necessary to enable us to pass, while Mr. A. will instruct us in the very things we require—give us just the right quantity, neither too little nor too much. He makes himself really useful to us, and tells us the exact words in which the different questions put to us should be answered." All this would be true, and you might fairly ask how it happens that teachers are permitted by the College of Surgeons to give so many more lectures than that body considers requisite, and to teach details which it, no doubt, thinks unnecessary or absolutely useless. The examiners are unquestionably placed over the teachers, and it is for them to decide what the candidate ought to know. If by extra-tutorial work the knowledge required by the examiners is better taught than by the authorised lectures, unquestionably the former should replace the latter—in fact, a good grinder be attached to every School. Every kind of teaching must be judged by its real utility. If it is useless as a preparation for examination, the sooner it gives place to teaching of another kind, based upon other principles, the better, unless it can be shown that the examination, not the teaching, is defective.

Surely, examiners should either accept the responsibility of deciding whether or not a man is fit to practise, or call upon the teachers to do so. If an examination is a test, all the vexatious registrations and certificates might be given up. If, on the other hand, the examination is not a test, then it would be far better to abandon it altogether and let the teacher certify that Mr. A. had been instructed by him, and that he is now fully qualified to practise his Profession.

For my part, I feel sure that examination may be so conducted as to be a real test, and that every candidate who knows his work properly will pass, while every one who does not will be rejected. Such examinations will be troublesome, and will occupy some time; but these are not insurmountable objections. Nor is it easy to see why examining boards should insist upon students passing through a certain set curriculum; so that a man possesses the knowledge, what can it signify how or where he learnt it? Let him learn from lectures or books, or evolve it all out of his own head for himself if that be possible. Let him enter a school, or work up in his own room, as he likes. Competent examiners would easily find out whether the candidate knew the subjects of examination or not, and students would soon discover whether they could learn in the shortest time and in the best manner from books, from lectures, or from tutors, or from a combination of all these modes of learning. And, as to practical work, in five

minutes at the bedside a candidate may be made to give evidence whether he is competent or incompetent to practise; yet, strange to say, a practical examination at the bedside has never formed part of the system pursued at the College of Surgeons.

It is insisted upon by some that our students are overlectured, and all sorts of assertions are made, apparently for the purpose of encouraging the student to consider himself ill-used by his teachers, who force upon him so much unnecessary learning. These, who appear to sympathise with you and pity you, are doubtful friends, who are really encouraging you to become idle and remain ignorant. If they desired to deceive you, to mar your success, to destroy your self-respect, to prevent you from obtaining the confidence of your patients, and from being useful to people who are suffering, they could not have hit upon any course more certain to insure these results. As regards the number of lectures and the details taught, let our system be compared with that in force in Germany. Is it not desirable that the state of Medical teaching and Medical examinations should be thoroughly investigated? Why a young Englishman should be encouraged to enter upon his Medical career with half the information possessed by a young German, it is impossible to understand. As long as the present system is persisted in, Medical education must remain most imperfect and far below what it ought to be, and what it would be in this country if the obstacles to improvement were removed.

At the same time it must be remembered that all are *permitted* to study, and in most Medical Schools every effort is made to encourage students to learn far more than is necessary to scrape through the examination. The most powerful examining body might, instead of fixing a minimum number of lectures, insist upon the teacher not teaching more than it deemed it necessary to examine upon. In that case there would be no hope of Medical progress. As it is, you have liberty to learn, and most teachers consider it their duty to instruct their pupils in the particular subjects they are called upon to teach, without any reference to examinations at all. But if our school way of imparting knowledge is wrong, it ought to be altered, for it is monstrous that pupils should have to pay a large sum for instruction by distinguished men, and, after all, have to pay other fees for further instruction. It is true the absurdity is not peculiar to us, for many a parent spends hundreds of pounds in giving his son what is called a first-rate English education, and at the end of it finds that the educated youth cannot pass a simple examination. Additional tutor's fees have to be paid in order that the boy at the age of sixteen should be really taught a little Euclid, algebra, and the elements of classics. Modern languages and the elements of science cannot, of course, be taught until the "school education" is complete. Is it not most remarkable that those who are engaged in teaching, who are watching the growth of the body and the development of the youthful mind from day to day, and are therefore eye-witnesses of continual change and progress, should be, as a class, the most staunch opponents of progress and the great enemies of change? Education obviously should be continually changing as knowledge changes; but of all institutions probably those endowed for the purposes of education are the most difficult to modify, and those who preside over them are, of all people, the most determined to resist innovation.

However backward our Medical schools may be, those who enter them have this advantage over the poor schoolboy, that they are at liberty to learn, and their teachers are invariably anxious to teach all they can.

Although there is much to be said against the system adopted by the College of Surgeons, and there is no doubt that, if that body had acted more in accordance with the spirit of the times, British Medical education would have been far in advance of what it now is, it must not be forgotten that the College is not merely an examining body. Connected with the College of Surgeons is the finest museum of comparative anatomy in the world; and if progress were as observable in the examinations as it is in the museum, the most enthusiastic teacher would have no cause to complain. But is it not remarkable that, in spite of this wonderful collection, so beautifully arranged that any student may learn from it in half an hour what no labour would enable him to acquire elsewhere, comparative anatomy is not considered necessary for general Medical education? Strange as it may appear, lectures on comparative anatomy are considered necessary for one who is to be a Fellow of the College of Surgeons, but not for a Member. Of course the candidate for the Fellowship is not required to *know* anything of comparative anatomy, but he must have attended the lectures on this subject during three entire months. In spite of all that John Hunter did, those who direct us have yet to be convinced that comparative anatomy should be studied by every man who enters the Medical Profession. And I doubt if anything will appear more astonishing to the Practitioners of fifty years hence than the fact that this wonderful museum was almost unknown to the great body of Medical students; and as I work from day to day, almost touching it, I can hardly convince myself that the majority of my pupils are ignorant, and are to remain ignorant, of this important subject.

It is very easy for a person having a general knowledge of physiology and comparative anatomy to learn Medicine. No subjects can afford a better training for Medicine than these, and it is a marvel that men who profess great respect for the work and teachings of John Hunter should forget that he was a comparative anatomist and physiologist before he was a great Surgeon and a pathologist. Hunter knew that these subjects formed the basis of Medicine, and that these must be studied if Medicine is to be advanced. But although Hunter's name is in a way honoured, we pay little more real respect to Hunter, and are no more influenced by his work and life, than were his contemporaries, who "abused him while he lived," and "considered his pursuits to have little connexion with practice, charged him with attending more to physiology than to Surgery, and looked upon him as little better than an innovator and an enthusiast." (Ottley's "Life of Hunter," quoted by Buckle.) "Hunter lectured for many years on Anatomy and Surgery, but his hearers never amounted to twenty."

Is it well that in these days men should enter the Medical Profession with far less knowledge of many branches of science intimately connected with Medicine than many intelligent people possess who are in other professions? Is it wise that the student should not try to learn more than that low minimum required by the examiners? Consider what position British Medical science has held, and what it ought to hold. Ought we not all of us to look up to the London Medical School rather than to the requirements of an examining board? Let us observe the rapid progress going on around, and not allow ourselves to be prejudiced by the notion that everything which seems in advance of us is unpractical or useless, and unworthy of study. Depend upon it, things which excite interest among intelligent Practitioners on the Continent ought to excite interest among us here, and would do so but for the prejudice excited against them by some whose age, authority, position, and interest necessarily exert great influence upon opinion.

It is often said that in these days practical clinical teaching is defective. But there is really very little demand for clinical teaching. Is practical clinical work really necessary for the mass of students? Perhaps because the ward work cannot well be so systematically carried on as a set lecture commencing and terminating almost at a certain minute, more licence in attendance has always been allowed and taken. And it is exceedingly difficult to carry out the checking system; for in many Hospitals two or more "visits" are being made at the same time. There is also the out-patient department, and the ophthalmic department, and the post-mortem theatre. There are, indeed, so many places in which the student may be gaining information in the Hospital, that if he is not in one he is supposed to be in another, when it sometimes happens he is absent altogether. But does it not seem strange that Medical clinical work should not be thoroughly sought after? This is what the student comes to learn before everything else. It is the great subject of Medical education, and if any training were adopted, it would have for its object to teach the student to learn to practise Medicine and Surgery in the best way. It is here that the present system breaks down in a vital point. The majority of students do not work properly in the wards. Few, as students, seem to desire really to study disease at the bedside, and very few have so worked previously as to enable them to do so with any advantage. Why is this? Is it impossible for a man, even in these days, to obtain a diploma permitting him to practise without being able to diagnose an ordinary case of common chest disease, without being acquainted with the commonest forms of heart disease, without being able to detect albumen or sugar in the urine? Nay, I will ask if the system still pursued renders it impossible that a man should obtain his diploma who does not know the anatomy of the heart and the course which the blood takes as it passes through it?

If it is well known that a knowledge of certain things

is sufficient to enable a student to pass his examination, and if it is known the examiners will ask questions upon these only, is it not natural and reasonable that the student should look upon these as all-important, and the numerous other matters brought before him by his teachers as unnecessary, at any rate at that particular period of his life? This unquestionably is the inference adopted by reasonable men who desire to obtain their licence to practise, but who do not feel particularly interested in Medical learning, and who do not desire to spend more time or work harder than is absolutely necessary to pass. And yet those who act upon this view will commit the gravest mistake it is possible for men to commit. They will pass into practice and find that they are ignorant of many things they ought to know. They will justly find fault with the system of education, and they will have to depend upon friends, books, and their own intelligence, for learning how to practise their Profession. They will thus acquire with great difficulty what they might have learnt very easily, and what they ought to have been examined in, years before in their Medical school.

And it is evident that the army authorities consider our system and our examinations faulty and defective from the fact that every Surgeon entering the army, after he has already passed through his Medical School, and after he has obtained his licence to practise as a civil Surgeon, is examined in anatomy and physiology, Surgery, Medicine, diseases of women, chemistry and pharmacy, and, if he wishes, in comparative anatomy, zoology, and botany. After this "preliminary examination," he is "required to attend one entire course of practical instruction at the Army Medical School before being admitted to his examination for a commission." The instruction includes the microscope and practical work in the laboratory.

The examiners of the day have absolute power to advance or retard teaching. If examiners insist upon a high standard of knowledge, the system of teaching will soon conform to it, and the pupils will possess the required information. If, on the other hand, the examiners demand little, the teacher who teaches that little in the shortest time will be most popular, and will be most useful to the student as far as obtaining a diploma is concerned. If the examiners are slovenly, teachers, as a rule, will be slovenly too. If the examiners ridicule modern work and modern knowledge, the majority of the pupils will pay them but little respect.

Now contrast the examinations conducted by the University of London, which are confessedly the most comprehensive of all Medical examinations, with those carried on at the College of Surgeons. The two systems cannot both be right. If it is desirable men should study as the London University desires, the other system is most inefficient. Now it will be answered immediately, "The University of London is too strict; not more than twenty take their degree in a year; nearly or quite half the candidates are rejected. Such a system is therefore unsuitable for the majority who enter the Profession. Upon the whole, the standard required is far too high for members of the Profession generally." Now, I would remark, first, the University of London examinations are difficult mainly because men do not know what to get up. Our system of education is not adapted to the requirements of the examiners of the University. I am much mistaken if, by modifying our education, 80 or 90 per cent. of the men sent up would not pass. As it is, neither student nor teacher has fair play. Teachers can hardly be expected to modify their teaching so as to suit a very small minority; although I cannot help thinking that, if they did so, the minority would soon become a majority. It is quite certain now that the teaching in the best schools will never be pitched at the low standard required by the College of Surgeons. As it is, the system of teaching actually pursued in our schools is a compromise with many defects. But however small the number of Medical graduates of the University of London may be, it is quite certain that that institution has done more to advance Medical science and improve the Profession in this country than all the other corporate bodies put together, and in a marvellously short time. There is not the slightest doubt that if the views of other Medical bodies could have been made more in accordance with those of the University of London, there would be little reason to find fault.

One very serious obstacle to Medical progress is the long period of time most examinerships and teaching and Hospital appointments are held. Changes occur so seldom that most aspirants lose patience and apply themselves to work which affords a better prospect of advantage. And it is not wonderful that those appointments which are most remunerative should be waited for the longest, and, when obtained, held almost to the last moment. For many obvious reasons, changes should be very frequent among examiners, and if teachers are ever to gain the respect from pupils which they ought to command, at least the most eminent among them should take part in examining candidates. So far from this being the case, it will be found that some examiners have never been teachers at all, and that of existing examiners comparatively few are actual teachers. If examiners changed every few years, we should soon find increased activity in every department of teaching, and enormous advance in Medical education. It should be stated that such a change has been introduced in the University of London. Examiners are appointed every five years, but in some instances an examiner has been *reappointed* after having been out for a year or two. In this way the principle of frequent change has been made compatible with the protection of individual interests, and appointments which ought to be held by the best teachers of the schools in succession practically preserved for the advantage of a select few.

Some subjects are, by the advance of discovery, totally changed in twenty or thirty years. What, then, must be the result if a man is fifty before he becomes an examiner, and is permitted to hold the office till he is past eighty, if he happen to live so long?

Limited tenure is the remedy for most of the existing defects in Medical education, and would soon lead to enormous advance in British Medicine. The number of workers would be much increased, students would be encouraged to qualify themselves for good work, and clever men with capacity for work would be encouraged to enter the Profession. There will be difference of opinion upon the number of years which different appointments should be held by one individual; but this, though on personal grounds a delicate question, is really a not very difficult one.

OPENING OF THE LONDON MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

The Introductory Address was delivered by Dr. Odling, F.R.S. The lecturer adverted in the first instance to the beneficent character of Medical art, and to the duty of pursuing the Profession of Medicine in a spirit alike of high-mindedness and of philanthropy. As a matter of right feeling, the relief of human suffering must ever be an object of interest to those whom he was addressing, and the interest they took in that object for its own sake would react beneficially upon themselves by increasing their ability to relieve. For although success in Medicine, as in any other department of life, might be attained by well-directed efforts undertaken merely for the sake of the success, a yet higher success was attainable through the influence of a higher motive. It was the beneficence of the Profession that constituted its highest title to respect, and blessings even more than fees must be appreciated as its reward. When speaking of the spirit of kindness by which every Physician should be animated, the lecturer took occasion to pass a warm eulogium upon the late Dr. Jeaffreson, whose premature death from typhus fever rather less than a twelvemonth ago had caused such general regret, not only at St. Bartholomew's, but among the Profession and society at large.

He went on to observe that next to the desire of doing good was the power of effecting it, and to the acquisition of this power their highest energies should be devoted. To possess the power of so directing the forces of nature as to cure disease, relieve suffering, and prolong life, must be the goal of their ambition, and the consciousness of having this power their chiefest satisfaction and happiness. This power was indeed a reality, though of less extent than might often be felt as desirable; for at some time or other all men must die, and the majority must die upon a bed of sickness, notwithstanding the skill of the Physician. But by far the greater number of the diseases, the illnesses, and the sufferings which all more or less experienced did not necessarily have a fatal termination; and they would find that the extent, the duration, the intensity, the consequences, and even the fatality of these cases were largely dependent upon the kind of treat-

ment resorted to. The power of the Physician was not indeed, omnipotent, but it was nevertheless real in its character, considerable in its extent, and well founded in its operations. It was hardly to be expected that the public at large should estimate thoroughly the strength of the Medical position or the character of Medical work; although he thought that they ought to distinguish more clearly than they sometimes did between that which is reasonable in Medicine and that which is essentially unreasonable, as having no analogy with anything else in nature.

The practice of Medicine was founded upon a knowledge of the human body, and of the diseases to which it was subjected. Accordingly, the treatment of disease did not depend upon any specific system of cure, for there existed no such system, but upon a familiarity with, and understanding of, disease itself, and of the manner in which it was influenced by remedial measures. In speaking of the effects of remedies, he did not limit himself to the effects of medicines. These formed a valuable—but not, he thought, the most valuable—portion of their Medical armoury. By quality of diet and its mode of administration, by extent of depletion or support, by bodily rest or exercise, by fixity or variety of position, by mental quiet or exercitation, by maintenance of warmth or application of cold, by change of climate, and other means, much might be effected in judicious hands without any assistance whatever from medicines properly so called. Nevertheless, the right use of medicines as auxiliaries in the treatment of disease would very properly form an important branch of their present study and of their future practice. Now-a-days there was a very proper reaction against the extravagant belief in the curative powers and the excessive employment of medicines which formerly prevailed. It was now well understood that few, if any, diseases were, strictly speaking, curable by medicines. Most diseases, at any rate, which got cured at all, cured themselves, in the same sense that a broken leg repaired itself. But the conditions affecting cure might be as effectually promoted or impeded by medicinal treatment in the one case as by mechanical treatment in the other. Since the object of the Doctor's existence was not knowledge, but cure, the most special of all the aids to cure was deserving of special systematic study—of a more systematic study than was, he considered, habitually accorded to it. He rather thought that the impossibility at present of understanding the mode of action of medicines had interfered unwarrantably with the study of their kind of action, while an ignorance of the conditions of their action had led to an irrational belief in the radical uncertainty of their action. In their study of therapeutics, however, it should be their encouragement to know that an appearance of uncertainty, irregularity, and inconsequence pertained to the early investigation of all natural phenomena; but that it was only an appearance, which, with time, and thought, and work, had yielded, or would yield, to a constantly increasing knowledge. A distinction, he said, was sometimes drawn between the science and the art of Medicine. Mentally they might be dissociated; practically they were one and indivisible. Science was knowing; art was doing or practising; but it was quite impossible to know the science without practising the art, or to practise the art without learning the science of Medicine. Of course the scientific man, though possessing a knowledge of all the sciences under the sun except the science of Medicine, wanting that knowledge, could never be a Physician; and that knowledge, like any other branch of natural history knowledge, was only to be acquired by working personally at the subject of such knowledge—in other words, by attending to the practice of Medicine and the investigation of disease itself. But to understand disease aright, as to understand every other phenomenon of nature, they must not only work at disease, but must lay a good foundation for their work by the acquisition of extensive preliminary knowledge. It was most unfortunate that, from the defective state of physical education at schools and colleges, much of the preliminary knowledge which they ought to bring with them they would have to acquire at the Hospital, whereby valuable time which, in that home of disease, might be advantageously devoted to the work of the Profession, would be seriously encroached upon. But they must make the best of circumstances as they existed. The knowledge, both preliminary and professional, they would have to acquire during their few years of Hospital study, was enormous in its amount, and, in its kind, not only most various, but very different from any to which they had, he feared, previously devoted themselves. It was lamentable that this should be the case, and reflected seriously upon those on whom the charge of general education in this country mainly depended. Both as regards the attainment of real knowledge, however, and the training of their powers of observation, their judgments, and their understandings, he believed that many of them would gain more during their first year of Hospital study than during the last half-dozen years of their previous lives. But to achieve this gain they must work laboriously and continuously. The period of their sojourn at the Hospital was the seed-time of their lives. With a view to the harvest of ultimate success in life, if for no nobler object, for the sake of their own future happiness and self-respect, still more for the welfare of those committed to their charge, they must take care that this time was not misspent or frittered away. As an illustration that even men of the most extraordinary mental powers could not dispense with work, he referred them to the career of the late Consulting Surgeon to the Hospital, Sir William Lawrence, concerning whom in his student days it was observed by Sir Benjamin Brodie some fifty years afterwards, "I never knew any one who had a greater capacity of learning than he had, or more industry." The lecturer then read a very discriminating and eloquent memoir of the late Sir William Lawrence with which he had been furnished by Mr. Savory, and which concluded in the following terms:—

"The intellect of Lawrence was characterised by a rarely equable and complete adjustment of parts. There appeared to be no deficiency or excess. All the qualities of his mind, like his frame, were in such perfect proportion that you were never struck by anything in particular, but charmed with the whole effect. There was nothing monstrous or eccentric about him. In a word, it might be said of him that the whole man, mind and body, was in perfect taste, and, as is only with the greatest, that the better he was understood, the more he was admired. Of men of the stamp of Lawrence no adequate conception can be formed from their books. He was so much greater in himself than in what he has written, that it can never be said of him, as he said of Hunter, that he 'lives again in the ample stores of knowledge he has left behind him.' But his name and memory, and the tradition of his work, Lawrence has left—a rare legacy—to the Profession to which he devoted his life, and lived so eminently to adorn. His example will survive and influence Surgery long after those have passed away who can remember the fine old gentleman as he went round the wards of St. Bartholomew's. And as the great Surgeon of the Hospital, one may borrow for him his own noble image of Hunter, and say, 'Here he reigns alone, like the Jupiter of the heathen mythology—

"'Cui nullum viget simile aut secundum.'"

ST. GEORGE'S HOSPITAL.

Mr. Holmes commenced by congratulating the members of St. George's Hospital School on the great advantage derived to both School and Hospital from the liberal donation of land recently received from the Marquis of Westminster. He endeavoured to give expression to the gratitude felt by the teachers of the School and governors of the Hospital to this nobleman, and then proceeded to point out the uses to which his gift was to be applied. They were these: In the first place the buildings for a complete Medical School are now in active progress within the precincts of the Hospital; secondly, the out-patient department will receive a remodelling, of which it is greatly in need; and lastly, a new wing containing fifty beds will be added to the general Hospital, and separation wards will be provided for the treatment of special classes of cases. The Atkinson Morley Hospital, at Wimbledon is also in active progress, and will constitute a country branch of St. George's, raising the total amount of Hospital accommodation to 500 beds. Thus the arrangements both of the Hospital and School will become complete in every respect, and will be adapted for all the uses both of practice and tuition.

More, however, than mere material alterations are necessary in order to maintain the high position which St. George's Hospital has always occupied as a School of Medicine. Both teachers and pupils must do their best to follow our predecessors' example, the former by introducing all possible improvements which can be shown to be necessary in the system of Medical teaching, the latter by willingness to submit to such regulations as will insure their progress in practical knowledge. The improvements which, in the judgment of the School Committee, are still required in the system of

Medical education are chiefly two. The first is to give greater prominence to practical personal work, in the dissecting-room and chemical laboratory, but more especially in the Hospital wards, by the students themselves, as compared with mere attendance at lectures. The object of Medical education ought to be not merely to teach students to answer questions, but to teach them to do things for themselves —*i. e.*, to teach them to acquire the principles of diagnosis and a sound method of observation. For this purpose new regulations have been introduced this session by which all the students will be divided into classes, each class to be under the superintendence of one of the Medical officers of the Hospital in rotation, who will place his cases under their charge, to do all that is necessary in notetaking, dressing, etc., the present distinction between dressers and clinical clerks being abolished. Thus the student will receive personal instruction at the bedside during the whole period after he has passed his primary examination. His progress in diagnosis and clinical study will be reported on, by each Medical officer under whom he serves, to the Dean of the School; it will be tested by frequent examinations, and the results of these reports and examinations will be used in allotting to the students the valuable offices which are open for competition at this Hospital—viz., of House-Physician, House-Surgeon, Medical and Surgical Registrar, Obstetric Assistant, Curator of the Museum, and Anatomical Demonstrator. The second improvement suggested by the committee consists in the introduction of special clinical teaching in eye diseases, skin diseases, and orthopædic Surgery. It is hoped, when the new buildings are completed, that Lock Wards will also be added. In each of these departments arrangements have been made for teaching the students from living cases as well as by lectures. Again, a special chair has been instituted of Pathology and Morbid Anatomy, in which also the student will have every possible opportunity not of hearing lectures only, but of working for himself in all the parts of this vast subject. Finally, throughout the programme of instruction care has been taken that the lectures shall nowhere trench on the time required for practical work. Whilst thus admitting the subordinate importance of systematic lectures, the lecturer, nevertheless, endeavoured to vindicate their necessity in that subordinate position, and to point out their practical uses. He terminated his address with an earnest appeal to the students to avail themselves of the advantages set before them, and of the time which the Medical officers of the Hospital were willing and anxious to devote to them, and endeavoured to impress upon their minds the chief requisites for one who would practise the Profession of Medicine with advantage to his patients and with honour to himself.

GUY'S HOSPITAL.

Mr. Durham, on the part of his colleagues and himself, warmly welcomed all present to Guy's Hospital, a place intimately associated with the history and crowded with memories of good work done in the past, abounding in evidence of good work going on in the present, full of promise of good work to be done in the future.

Mr. Durham then proceeded to give an outline of the history of the Hospital, prefacing this by some account of the life of Thomas Guy, "at whose sole cost and charge" the Hospital was founded. He eulogised the character of Guy, and defended his memory from the ill-founded, but oft-repeated, charges made against him. Guy was neither "harshly usurious" in getting, nor "miserly" in keeping, his money; the stories that would make him so are apocryphal, and easily shown to be inconsistent with facts. Maitland, in 1736, truthfully summed up his character thus:—"As he was a man of unbounded charity and universal benevolence, so was he likewise a great patron of liberty and the rights of his fellow-subjects, which, to his great honour, he strenuously asserted in divers Parliaments whereof he was a member." The large accession of fortune which came to Guy in his later years must not be regarded as the result of "lucky stock-jobbing," but rather as the natural reward of that industry, economy, and shrewdness which made him the successful man of business. And so the building and endowing of his Hospital must be regarded, not as the death-bed apology of a miser for his ill-gotten gains, but rather as the worthy crowning work of a life of far-seeing, ever-active benevolence. Mr. Durham next spoke of William Hunt, who, after Guy, was the greatest pecuniary benefactor of the Hospital. "Guy's" Hospital was founded and endowed for the reception of at least four hundred patients. Hunt's bequest of about £200,000 was left on condition that within three years of the testator's death accommodation should be provided for at least one hundred more. How thoroughly well the benevolent wishes of Guy and Hunt have been more than carried out is patent to the world. That they have been so carried out is due to the admirable management of the Hospital and its estates. How much is owing in this respect to the late treasurer, Mr. Harriaon, can never be fully estimated. It is impossible to speak of the history of this Hospital without offering a tribute of grateful praise to the memory of Mr. Harrison. After alluding to the "lamentable state of Physic" at the time the Hospital was founded and during its early years, and illustrating by anecdotes the difference between the "then" and "now" in the Medical world as well as in Hospital management, Mr. Durham proceeded to speak of the rise and development of the present system of Medical education in London. He rapidly sketched the history of the great School attached to Guy's Hospital, and referred to the distinguished men of the past whose talents, industry, and devotion had contributed so largely to raise the School to its present state of efficiency and high repute. He cordially acknowledged the interest manifested by the Hospital authorities in the welfare of the School, especially expressing obligations to the treasurer; at the same time, he emphatically pointed out the great services rendered by the School to the Hospital. Not only does the School directly assist to a very great degree in carrying out the especial object of the Hospital—viz., the relief of those needy sick and suffering for whom accommodation or attendance is here provided—but, further, the School indirectly, but no less certainly, affords the means of extending the benefits of the Hospital to an endless number of sufferers in every rank of life who never could reach or never would seek its gates. Addressing, then, the students, Mr. Durham told them they would enjoy at Guy's Hospital opportunities of studying the several branches of their Profession which might be said to be unsurpassed, and (one exception being made) almost unrivalled in London. This he said in no spirit of vain boasting, but rather in all seriousness, and in order that, by representing to them the greatness of their opportunities, he might impress them with the greatness of their responsibilities. The size of the Hospital, the number of patients yearly admitted, and the almost endless varieties in the forms and phases of disease presented for study; the enormous number of out patients, the extent and efficiency of the various so-called special departments (as those for diseases of the eye, ear, skin, etc.), the peculiar merits of the museum, the large amount of material accumulated for the illustration of the lectures, etc.—these constitute the chief advantages offered at Guy's. The freedom allowed, and the facilities and encouragement given to the students to avail themselves of these advantages, are no less characteristic features of this Hospital. There cannot be a greater mistake in Medical education than to suppose that a man can learn his Profession at a small Hospital as thoroughly and well as at a large one. To say that one case well studied is worth twenty casually looked at, is a specious piece of special pleading. The man who looks, and looks well, at nineteen additional cases of any disease will gain far greater practical advantages from the careful and thorough study of his one case than the man whose opportunities have limited him to the study of one only. He will learn that no two cases are ever exactly alike, and that treatment, management, and prognosis must be modified according to the circumstances and conditions of each particular case. The advantages which a large Hospital offers to the student in Medicine can hardly be overestimated. Mr. Durham then went on to advise the students as to how they might best avail themselves of their opportunities. He said—

"I take it for granted you wish to be scientific and also successful Practitioners of your Profession. Then I would say what you have to do here is—first, to learn to observe correctly, to examine carefully, to investigate thoroughly; secondly, you have to learn to interpret aright, and to draw correct conclusions from your observations and the results of your examinations and investigations; thirdly, you have to learn to act upon your conclusions to practical advantage. Before you can advance to any good purpose you must learn to observe. Men do not become observers by intuition, but by hard labour. Take the history of science. What a medley of mistakes and blunders! What a stumbling towards the

light! And why? Because men would not observe, would not examine, would not investigate, but would explain. Consequently they were forced to draw their conclusions from the fictions of their own fancy rather than from the phenomena of nature. Again, a large proportion of the Medical errors, 'the fallacies of the Faculty,' that have been promulgated from time to time, may be considered as just so many terribly mischievous expressions of human ignorance, indolence, and vanity—instances in which fancy has taken the place of observation, and vain speculation has usurped the office of sound reason."

Mr. Durham then drew attention to various Medical theories and hypotheses recently brought forward as illustrations of the results of the want of proper observation, hasty generalisation, and bad reasoning. He warned students in learning to observe to beware of the various "idols" spoken of by Lord Bacon as besetting the human mind. The first book of the "Novum Organum" should be carefully read by every student. The history of Medicine—nay, the present state of Medical science—affords plentiful illustration of the several species of "idols." The various errors to which specialists in study as well as specialists in practice are liable were next spoken of, and examples given. The fallacious conclusions that have too often been derived from loosely collected statistics were then alluded to, and comments made upon the use and misuse of statistics in Medical science. Students must learn in the wards to observe for themselves—to use their own eyes, ears, and fingers. They must also learn to avail themselves of those various aids to the senses now in daily use—the stethoscope, ophthalmoscope, laryngoscope, etc.

Lastly, Mr. Durham made a few remarks upon the general state of the Profession. Perhaps there never was a time when a greater number of more able men were working honestly, and working well in the right direction. It is impossible not to be hopeful for the future, and yet in many respects the high standing and dignity of the Profession are not upheld as they ought to be. There is too much quackery—too much pandering to the ignorant—too much puffing, direct and indirect—too great a readiness to give opinions in courts of law and elsewhere, in accordance with the wishes of those who pay, instead of in accordance with the facts—too great a readiness to accept the position of the advocate, instead of taking that of the judge! Too many books teem from the Medical press, written not because the authors have anything to teach, but because they want practice! Too many discussions are conducted with an acrimonious personality alike disgraceful to the individual and injurious to his cause. Such and suchlike faults and flaws were rife in our Profession in days bygone. It is sad to think they should still prevail to the extent they unquestionably do. Such faults and flaws within the Profession are incomparably more lamentable, and do infinitely more harm, than all the quackery without. The remedy lies with the individual members of the Profession. Each one must look to himself, and see that he conducts himself in a manner worthy his high calling.

KING'S COLLEGE, LONDON.

Introductory Lecture, Medical Department, October 1, 1867.

After some words of welcome to new and old students, addressing himself principally to the former, Dr. Miller said:—"It will not be sufficient for any one, however diligent, to content himself with mere attendance upon lectures. Admirable as these may be, they can only present an outline of the subject, which the student must fill up by reading and reflection. No man can really do the work of thinking for another if that other is to be anything more than a cipher. The most important part of a man's education is that which he gives himself; he must learn to master his own mind, and to conquer the tendency which every one naturally has to prefer ease to persevering work. When once the habit of steady application has been acquired, all others are comparatively easy.

"In preparing yourselves for the practice of your Profession, your great object must be to seize upon the principles of each branch of your studies; here it is that good lectures are of such great importance in directing the mind of the student. Do not suppose, however, that I wish you to undervalue the acquisition of very minute details in certain cases. Details, indeed, are not to be despised or neglected, for it is upon the mastery of detail that all successful practice depends. All acquired knowledge, to be valuable, must be precise as far as it goes; but the selection of those points that must be filled up minutely, and the omission of details where the knowledge of the principle only is requisite, are essential conditions to success in study; and in such cases a hint obtained from the Professor may often save you many hours of profitless labour.

"The custom of taking notes during lectures is one which may be beneficial or injurious, according to the mode in which it is carried out; if judiciously managed, it may be of great value. Unless, however, you are a master of shorthand, it would be a mistake to attempt to set down all that is said. The great value of notes of lectures will be to guide you in your subsequent reading; but, since most of the details given in systematic courses of lectures will be found in the text-books upon the subject, it would be waste of effort to do more than to preserve the heads and main divisions of the discourse. If more be attempted, the attention is in danger of being distracted by the mechanical effort of writing, and the drift of the argument of being lost in consequence. It will often be useful to take down references to books, numerical details, and special information of any kind. If it is an experimental lecture, a list of the illustrations employed, or a sketch of any particular piece of apparatus made use of, may be preserved. Sometimes an indication of the form of an experiment will save a long description, and even recall the whole more vividly to the mind. In short, good notes to a lecture are like an index map to an intricate country, upon which a few of the leading rivers, mountains, and cities are clearly marked out. Difficulties will from time to time occur, both in the lectures and in the course of your reading afterwards. These should always be noted, with a view, if a further consideration does not render them intelligible, of asking a solution from the Professor by conversation with him after the lecture is over. Few students, indeed, are sufficiently in the habit of availing themselves of this advantage, though there is no way in which the experience of the teacher can afford more direct benefit to the learner. The explanation of some apparently trifling difficulty will often throw light over an entire subject which appeared before full of obscurity and confusion. Besides which, this habit on the part of the student enables the Professor to ascertain how far he is followed by his class, and it affords him a proof of the interest felt in his subject by the intelligent members of it; and the awaking of such interest is indeed to him one of the most gratifying results of his labours. *Viva voce* examinations do something towards the establishment of this kind of personal relation between teacher and pupil, but it is much more fully developed by the freer communication between both which this conversational mode of imparting information on the very points where it is most needed accomplishes. The first step towards obtaining help is, of course, to make known your difficulties to those who have both the wish and the power to remove them.

"Need I say that punctual attendance in the lecture-room is a fundamental requisite? The loss of a lecture breaks the connexion of the subject in the mind. Your interest in it then becomes impaired, and next time the temptation to miss another lecture is less easily resisted. The habit of non-punctuality, like all other bad habits, grows rapidly with indulgence, but is not easily checked; and, to a Medical man, a character for punctuality is all but essential to success in life.

"This leads me to the remark that every student who aspires to distinguish himself—and who is there among you that does not?—must set apart methodically certain portions of the day for study. Four or five hours spent daily in real study, in addition to the time occupied in the class-room, in dissecting, and at the Hospital, will be as much as will be profitable to most men. The mental food, like the food for the body, must be digested and assimilated; otherwise it will not become part of the mind, nor will it be available for use.

"This systematic and orderly arrangement of your studies will be greatly facilitated by the custom of drawing up every evening a list of the subjects with which you propose to occupy yourself during the following day. It will preserve you from indecision, and will save time as you pass from one pursuit to another in its due order. You will then also be in less danger of falling into the habit of procrastination, which so often ruins a promising character. If you know that a thing which must be done can be done at once, do not postpone it. Recollection of the duty will either hang uneasily over you and rob you of your repose, or else you will become indifferent; the habit of delay will be confirmed, and your power over yourself will be weakened.

"This plan of writing down the day's work beforehand will, however, be of little value unless it be connected with the habit of calling yourself to account each evening to ascertain whether the task which you allotted to yourself the night before has been accomplished. If you find that you have failed or have been obliged to omit certain subjects, do not excuse yourself too readily. Unavoidable circumstances will of course now and then break in upon your plan; still, they will occur but seldom if you are honest with yourself. This review of the day should not stop short here if it is to produce its full benefit. It should extend to your thoughts, conversation, and actions generally."

After some valuable advice on the subjects of early rising, exercise, choice of books, and attention to religious duties, Dr. Miller continued:—

"If you build thus upon the right foundation, you will see the importance of thoroughness in all that you do. The first requisite to successful study is the concentration of the powers of the mind upon the subject in hand, and this concentration of the faculties, though a voluntary act, is difficult at first to accomplish, but it gradually becomes easier by repeated practice. A well-trained mind will find that this process will afford invaluable aid to the memory even when not naturally retentive, whilst it will enable one blessed with a really strong memory to acquire a knowledge at once ready and accurate of any subject which he selects.

"We often hear complaints of want of memory on the part of those who really ought to blame themselves for want of attention. The same man who complains that his memory is so bad that he forgets what he has read as soon as he has closed the book, will, nevertheless, often give you the particulars of a boat race, or of a game of cricket or of football, in which he was himself personally interested, with the minute details of every incident, showing no want of memory in this case, where his bodily and mental powers were called into full activity.

"The mind must be directed to the subject for a certain time, with a view to remembering it, and the idea must be strengthened by repetition. Systematic repetition or review of the leading features of the subject under study should never be neglected. It is irksome, but indispensable. This habit of directing the mind intensely to whatever comes before it in reading or observation should, therefore, be cultivated by all means in your power. And the opposite habit of listless inactivity should be carefully guarded against, for in this lies the foundation of a sound intellectual character.

"Next to attention there is nothing that affords so important an aid to the memory as the habit of associating ideas correctly with each other. The constant practice of tracing the relation between new facts and those already acquired—the custom of referring facts to the principles which they confirm, illustrate, or extend—is of the utmost value, since it not only fixes the new facts firmly in the memory, but it refers them to their proper position, and enables the mind to recall them in connexion with the subject itself to which they refer. This mental op ration is most important to prevent confusion of mind; indeed, it is not less necessary than the corresponding mechanical process of arranging one's papers. Every one at once feels the importance of separating those relating to different subjects, whilst those referring to the same subject are placed together, each series being indicated by its appropriate label.

"This habit of correct association may be attained by any one, but it requires assiduous cultivation. It not only exerts a great influence upon our acquisition of knowledge, but also upon the formation of the intellectual characteristics; and it is closely connected both with that activity of mind which it is so important to foster and with that soundness of judgment upon which so much of the solidity of a character and its usefulness to others in future life depends.

"We must now leave these more general topics, and turn to those directly connected with your Profession. A complicated scheme of study is put before you as forming the curriculum through which you must pass. But its complication depends upon the variety of knowledge which is really requisite. You must bear in mind that Medicine—using the term in its most comprehensive sense—Medicine is both a science and an art. A science, inasmuch as, like all science, it endeavours to ascertain the established relations of facts, the tendency of certain events to be uniformly followed by certain other events; and an art, inasmuch as it endeavours to avail itself of the knowledge thus acquired to produce at will the results which previous experience has shown to follow certain arrangements of circumstances.

"Now, in the infancy of knowledge art usually precedes science; but if art is to become anything but the merest empiricism, it must avail itself of all the light which science can throw upon its objects, as advancing knowledge enables us to acquire principles upon which to found our practice. In earlier times an empirical practice alone was possible, but as our knowledge advances the field of study expands, and yet the mode of study becomes easier.

"In Medical science the subjects of inquiry are chiefly the influence which external objects exert upon the living frame, more particularly in respect to the tendencies that those external objects have to produce changes in living bodies which are concerned with the disturbance of their healthy functions, or with the restoration of those functions when deranged by disease. The practical art of the Medical man consists in determining how best to avail himself of the knowledge thus obtained, either in counteracting changes which he wishes to prevent, or in promoting those which he wishes to restore to their ordinary condition in health.

"In many sciences our knowledge rests upon an assured and exact basis. This certainty depends upon the facility with which we can trace effects to their true causes, can predict the effects of known causes, and, consequently, can calculate upon the absolute uniformity with which particular results may be obtained. This is a certainty which may be secured so long as we are dealing with inanimate matter. We can determine with absolute accuracy the effects of a mechanical combination, and we can predict the results of a chemical experiment which we have made on a previous occasion. If the consequence which we expect does not follow, we are sure that some unobserved disturbing agent has prevented the conclusion which we anticipated, and a little observation will enable us to discover and obviate its effects. It is our accurate knowledge which gives us the power that we in so many cases possess over material objects. And we must remember with Bacon, 'Natura, non nisi parendo, vincitur.'

"The knowledge of the philosopher differs from that of the uneducated man less in kind than in degree and in the manner in which it is acquired. In addition to the observation of the phenomena as they occur, the man of science institutes experiments—that is to say, he arranges and selects certain circumstances and excludes others, so as to enable him to determine what are the necessary and what merely the accidental antecedents of the phenomena which he is examining, and upon the skill with which these experiments are arranged depends his progress in the discovery of scientific truth.

"Now, in Medical science there are sources of uncertainty which do not exist in physical science. One of these arises from the fact that we, in most cases, cannot make experiments, nor can we arrange all the circumstances at our pleasure. In nearly every case of disease we must content ourselves with observation of the phenomena; and even to the most careful observation how much lies hid! We see complex results only, but cannot trace all the conditions necessary to produce them. Hence accurate inferences can only be deduced by slow degrees, and hence it is in so many instances difficult to estimate the true value of the conclusions at which we have actually arrived.

"Other sources of uncertainty arise from the multiplicity of disturbing causes with which the Physician has to deal. In no cases is patience in forming opinions more necessary, and yet nowhere is an immediate practical decision more requisite. The temptation to form premature judgments is hence very considerable, and experience shows how difficult it is to correct a habit of this kind; besides which, from the very complexity of the phenomena, it is for the most part extremely difficult to demonstrate that any given conclusion is inaccurate, or that any principle laid down has no solid foundation.

"Even when the principle has been correctly reasoned out, it is not unfrequently found that on applying it to practice the result disappoints us. The influence of the mind upon the body is so remarkable, and its effects vary so completely with conditions quite independent of physical circumstances, that they often baffle the most sagacious, and defeat the most experienced and most cautious Practitioner. He who knows most of the workings of the mind consequently possesses an advantage over his fellows which can scarcely be duly estimated. This may sometimes be turned to account, especially in diseases attended with much depression of the vital powers. Though the subject is so wide, I may illustrate

what I mean by an example, showing the power of association of ideas in often producing effects which could scarcely have been anticipated. It is given by Dr. Rush, a celebrated American Physician. He says:—'During the time that I passed at a country school in Cecil County, in Maryland, I often went on a holiday with my schoolmates to see an eagle's nest upon the summit of a dead tree in the neighbourhood of the school, during the time of the incubation of the bird. The daughter of the farmer in whose field the tree stood, and with whom I became acquainted, married, and settled in this city, about forty years ago. In our occasional interviews we now and then spoke of the innocent haunts and rural pleasures of our youth, and, among others, of the eagle's nest in her father's field. A few years ago I was called to visit this woman when she was in the lowest stage of typhus fever. Upon entering the room I caught her eye, and with a cheerful tone of voice said only, "The eagle's nest." She seized my hand, without being able to speak, and discovered strong emotions of pleasure in her countenance, probably from a sudden association of all her early domestic connexions and enjoyments with the words which I uttered. From that time she began to recover. She is now living, and seldom fails, when we meet, to salute me with the echo of the eagle's nest.'"

Dr. Miller then passed in review the various subjects of study both in College and Hospital. The following were his remarks on his own subject—chemistry:—

"The remaining subject with which you will be engaged during your first winter session is chemistry, by which you are taught the nature, properties, and modes of combination of the different kinds of matter—a science of vast extent and of fundamental importance to you. From its wide range and its difficulty there is no branch which the student is more often tempted to neglect, although its bearing on the practical part of his profession is manifestly very great.

"It will be my business, after impressing upon you its leading principles, to endeavour to guide you in selecting those parts of the science which admit of direct application to your Profession. The microscopic investigations of the physiologist and the pathologist would be partial and incomplete if the various tissues were unravelled only by the aid of the scalpel or the needle. The judicious use of solvents, the application of tinctorial agents, and the various expedients of microscopic chemistry must be called in at every step to assist the ruder dissections effected by the knife.

"With the chemistry of the atmosphere and of water many of the most important problems of hygiene and sanitary science are bound up. Efficient ventilation or the removal of that portion of the atmosphere which has become chemically altered by respiration or by combustion, and which is consequently no longer fitted for the due support of life, is one of the great objects of the sanitary reformer. It is for this purpose that he widens streets, opens courts, puts in fresh windows, and inserts ventilating gratings. It is to prevent the pollution of the air we breathe with the miasmata produced by decaying animal and vegetable matter, and the spread of pestilence and death, that it becomes necessary to close the cesspool, and to cause the closet to be properly trapped. It is for this reason that the officer of health insists upon the removal of heaps of ordure which, when duly returned to the soil, serve as necessary manure to stimulate the growth of future plants, and which, by the transforming actions of the chemistry of vegetation, again become fitted to supply food and vigour to the animal creation.

"Typhus, diarrhœa, even cholera itself, may often be traced to the impurity of the water supplied to a district; and in such cases a simple chemical examination of the water has often revealed the acting cause, and thus led at once to the adoption of the appropriate remedy in the introduction of water from a purer source.

"In the direct applications of chemistry to Medical practice I need but to remind you of the large and important class of diseases of the kidney and bladder. The different forms of gravel and the varieties of calculous affections can only be successfully treated by carefully watching the changing chemical conditions of the urine and its deposits. In diabetes and in albuminuria it is from the application of chemical tests that the Physician obtains the most rapid and certain indications of the progress of the disease and of the effects of his remedies.

"Few subjects offer more important matter for investigation, from a chemical point of view, than the various forms of dyspepsia; for there is no function more intimately dependent than digestion upon chemical changes, and yet there are few over which we at present possess less definite control. The manner in which the food becomes converted into the soluble form, is rendered capable of absorption into the blood, and when so absorbed is made suitable for the due performance of its functions, is indeed but little understood, and no greater service could be rendered to practical Medicine than a sound interpretation of the physiology of digestion and of the pathology of dyspepsia which is to be looked for at the hands of chemistry. Let me then earnestly urge you to the diligent study of the principles of chemistry. In no branch of science is it of more importance thoroughly to master the principles. And in none, from the enormous mass of facts which it embraces, is a judicious selection of the parts to be studied in detail more indispensable. At the same time there is no subject which will by its intrinsic value and interest more amply repay the time and labour bestowed upon it.

"In order to fix these details upon the memory, the practical operations of the laboratory which you will be called upon to undertake in the summer will be found of the greatest assistance. Indeed, it may be asserted that chemistry can no more be acquired effectually by mere reading or attendance upon lectures than anatomy can be learned without the actual practice of dissection, or the skilful treatment of disease without study by the bedside of the patient."

In conclusion, he said:—

"Brace yourselves up, then, for a manful determination, with God's help, to master the various difficulties which you will meet with in the course of your studies. The old adage, 'They can conquer who believe they can,' contains a solid practical truth; and the pleasure experienced in the consciousness of difficulties overcome furnishes a powerful stimulus to future exertions, whilst the strength acquired by the intellectual struggle prepares the mind for new achievements, stimulates it to renewed efforts, and nerves it to perseverance, without which the brightest endowments will avail but little. Great intellectual capacity is one of the rare gifts of God; but the use which we make of the powers bestowed upon us, be they great or small, depends upon ourselves; and our command of those powers is in great measure under our own control, and is proportioned to the care which we have bestowed upon their cultivation.

"It may seem strange that any one, with a knowledge of the extent of the field of study before him, can persuade himself that he can postpone its commencement with safety, and that by a system of cramming for a few weeks or months, just before he presents himself to the licensing bodies, he can really become qualified for the responsibilities of actual practice. No man who acts thus estimates aright either his own duties or the dignity and true objects of the Profession in whose ranks he is proposing to enrol himself. Let me indulge the hope that none who hear me this day will be guilty of such dishonesty to themselves, such injustice to their fellows, such culpable indifference to the welfare of those who may hereafter have the misfortune to be placed under their treatment as patients.

"When you enter upon the practice of your Profession you will necessarily be introduced into the bosom of families, and will often become intimately acquainted with circumstances touching most nearly the honour and happiness of those to whose confidence you are admitted, and will often be consulted in matters of delicacy and difficulty. Habits which will qualify you to act wisely in such situations must be sedulously cultivated in the early years of your life, or the power to advise will not be yours when it is needed. Discretion, as well as true Christian principle, will be necessary, and these are things of slow growth, only to be attained by watchful culture.

"The Profession which you have chosen, gentlemen, is indeed a noble one. Remember that its honour is in part intrusted to your keeping. See to it that no sordid motives influence you, and that no carelessness on your part bring discredit upon its reputation. Having conscientiously prepared yourselves for its duties, use worthily the opportunities that you will possess of influencing those who consult you in the promotion of works of benevolence and mercy. Let me urge you to remember that great opportunities imply corresponding responsibilities. When the heart is tender seize the moment to say a word touching the things which are unseen and are eternal.

"Whilst you soothe the aching brow or smooth the pillow of the dying, a word dropped in season may be more effectual in rousing the thoughtless than any formal ministration of even

the messenger whose business it is to proclaim the tidings of mercy to the soul. Never lull the dying into false peace by unfounded expectations of recovery. Be faithful. Few things, indeed, require more care and judgment than the selection of the time and the mode in which it may be proper to warn the patient of his danger. Sometimes it may be done through the intervention of friends, sometimes by a hint to the sick man himself; but the Medical man, if he be a man of prayer, will find the occasion and the means. We know how prone the heart is to postpone the consideration of eternal things; and who can say but that timely warning may be the means of recalling one from the error of his ways, who, but for your faithfulness, would have gone on to the end in indifference, buoyed up by a fatal and delusive security?

"And now permit me, ere I close, to congratulate you upon the Profession which you have chosen—not, indeed, because you thereby have placed yourselves in the path that leads to title, wealth, or fame, for if that be your aim you have probably mistaken your course; but because your walk in life will often bring you into association with the best and the worthiest—because, whilst it makes you acquainted with the miserable and the distressed, it will afford the means oftentimes of succouring that misery and relieving that distress—because it will be your business, in the very practice of your Profession, to go about doing good, and so in your measure to follow more than many others can in the footsteps of our Master and Redeemer.

"Such pursuits, indeed, imply upon your part self-denial, and that of no ordinary kind. Fatigue you must undergo; sorrow and suffering you must witness; but in return you will have abundant reward for your labours. Many a time will you be permitted to restore health and vigour to the enfeebled and drooping frame, and to palliate anguish where you cannot entirely remove it. At others, you will feel the luxury of being the instrument of affording relief at once to the tortured sufferer, and of stilling the anxious forebodings of affection by being able to impart the assurance of safety under circumstances of apparent danger. With these prospects before you, gentlemen, I bid you God speed! May He guide and strengthen you in the career of mercy and active usefulness upon which you are this day entering!"

THE MIDDLESEX HOSPITAL.

"Mental and Moral Culture" formed the subject of the inaugural address delivered by Dr. Cobbold, F.R.S., at the Middlesex Hospital, and it was only towards the close of the discourse that the author spoke to the following practical effect:—"Gentlemen,—Let us now turn our thoughts to the Hospital. That is the place for yet higher teachings than the lecture-room. I speak no more than simple truth when I aver that I never pass through the open and airy corridors of this institution without a rising sentiment akin to that of reverence. No one will charge me with the folly of possessing a superstitious veneration for buildings usually deemed sacred; nevertheless, I cannot shake off that semi-religious respect which all rightly constituted minds entertain for the dwelling of the sick. I know you share this feeling with me. It is not to be expected, of course, that the associations of the board and waiting rooms should awaken this regard; but the moment you enter the wards let your attitude bespeak the prevailing elements of your better nature. Be not unwilling to make even apparently trifling concessions in the interest of the afflicted. The lesser actions of a loving heart seldom escape the observation of the sorrow-stricken child of misfortune; and never can they display themselves with greater power than when reflected in the manly bearing, open countenance, quiet manner, and kind words of the Surgeon or Physician. Think not, then, slightingly of these little attentions. The firm and easy tread; the absence of all unnecessary haste; an open deportment, and the uncovered head. All these indications, and many more besides, descending even to the consideration of a flower placed on the window-sill; all these, I repeat, are material benefits of no mean import, and they are such as were long ago figuratively and unerringly described as 'cups of cold water, which shall in no-wise lose their reward.' Again, at the risk of uttering some sentiments which have had their counterpart in the eminently practical discourses of my predecessors, let me press upon your notice another essential point. It has reference to work done in the wards. If, in purely Medical studies, you must have your 'hobby,' I advise you to concentrate your best energies on the subject-matter conveyed by clinical teaching. I do not urge this from the lower points of view which commonly—and very properly, if only in a subsidiary sense—animate the student; but I thrust it forward from incentives that cannot be too strongly enforced. Kindly receive an illustration of my meaning. In the course of your Professional duties, cases of comparative rarity and difficulty will ever and anon turn up. Not improbably they may cause you some anxiety. Here it is that your highest Professional powers are put to the test, whilst the qualities of discretion and self-reliance are also well brought out. But of what value, I ask, are these last-named principles if their exhibition is not guided by antecedent practical experiences gained at the bedside? Why, even the bold, unblushing quack is self-reliant; and that, too, without ever having received so much as a homœopathic particle of Hospital instruction. Such a creature, no doubt, may desire to do his best. His self-assertiveness may even impart confidence to the friends of the sick. The patient may perish, palpably from his want of knowledge of the proper mode of treatment. Nay, more; the deceased may be buried, and the notoriously ignorant man shall be thanked and paid for the skill which he is honestly supposed to have exercised. What a chastening estimate do instances of this kind afford us of the amount of discernment frequently exercised by our so-called intelligent public! To the highly gifted Physician these exhibitions are humiliating in the extreme. In cases of the kind I have just described the ignorant and unlawful Practitioner finally goes his way without one solitary pang. He is even gratified and stimulated to further wrong-doing. But it would not be thus with you, gentlemen. Your honourable feelings and educational antecedents, whatever their deficiencies, have, at least, insured a healthier tone. Hereafter, if you should find that, by your neglect of clinical instruction, you have voluntarily deprived yourselves of powers whose exercise might have saved the life of a fellow-creature, you would, I am sure, in calm moments silently rebuke yourselves. You can never tell what important issues may depend upon a single day's absence from the wards; and, since the time of your Hospital studentship is short, I ask you, in no unfriendly spirit, to make the most of its teachings. What goes on there affords a lesson for the heart as well as head. In after life, it is true, you may meet with cases altogether unlike those which have occurred within the limits of your Hospital experiences; but then, should they unhappily go wrong, you will have no reason whatever to chide yourselves. I, for one, have great faith in the joyous look and the elastic tread of a conscientious man. Depend upon it, the gloomy countenance of a Medical Practitioner is not a desirable object for any one to contemplate; yet even that were better than the sight of a brazen-faced, fault-finding, self-satisfied, empty-headed, swaggering, ignorant creature of doubtful qualification. Finally, gentlemen, if the ordinary necessities of circumstance, combined with a fair sense of honour and usefulness, have induced you to embark in the Medical Profession, by all means adhere to your choice. The sources of pleasure and satisfaction to be derived from moderate success in this regard are by no means scanty. Their quality is of the highest order, and not to be estimated merely by ledger balances in your favour. The choicest joys that you will experience in the exercise of your vocation are such as spring from a sense of actual good done, intensified betimes by the grateful looks of those you have benefited. These rewards will stand by you to the end of the chapter; and, probably, as the last leaves of life's volume are being overturned, some thank-utterances of the past will relieve your then present sorrow. It may be, however, at such an hour, that the withering influences of time shall have weakened your powers of reflection; yet, at all events, the record of usefulness will be none the less secure, and it will long outlive the ephemeral repute of the mere successful man of business. It may be a fine thing to accumulate wealth; but the reputation of a Crœsus will not compare with that of the illustrious Jenner. If the men of commerce can triumphantly point to splendid instances of good accomplished by the large-hearted gifts of a few of their number, it must also be borne in mind that recent commercial transactions have led to the ruin and misery of thousands. All of us are cheered by the generous performances of a Burdett-Coutts or of a George Peabody; yet we are none the less assured of the worth of less conspicuous deeds of charity. Any one contributing, by purse or otherwise, to the support of our large metropolitan Hospitals is entitled to a share of the esteem and affection of all great and good people. It may not be yours to assist largely in this noble cause, neither may you be enabled to accomplish much towards the advancement of our art; but, come what may, let the unpausing eloquence of a life well spent redound to

the credit of those who watched over your early years; let it testify to the courage and manliness of character acquired at public schools; let it reflect something of the mind and knowledge of the college teachers and Hospital staff who have instructed you; let it promote the honour of the Profession which has sustained you; let it afford evidence as to your own individual happiness; and, lastly, let it, in some sense, bespeak the goodness and praise of the common Author of us all."

UNIVERSITY COLLEGE.

THE Introductory Address was delivered by Professor Grailly Hewitt, M.D. After welcoming those now entering on their Medical studies, and congratulating them on their choice of Medicine as a profession, the Lecturer proceeded to give a general outline of the course and objects of the study to be pursued. The chief part of his address was, however, devoted to a consideration of the subject of "the treatment of disease." Is there, it may be asked, any great law, any simple expression or proposition, which shall so far embody the end and aim of Medical treatment as to form a safe basis for practice? Is "rational" treatment possible, or must we rely on empirical treatment? The study of the phenomena and laws of life only can give us the basis we require. However little we know of the nature and essence of life itself, physiology unceasingly tells us that the continuance of life is dependent on the fulfilment of certain well-defined conditions. Food, light, air—these are indispensable. Failing these, disease and death take possession. Chemistry relentlessly steps in, and distributes to their pristine elements those beautifully organised fabrics which people the world; chemistry, for a time the slave of the body, finally becomes the master. We cannot imitate the wonderful processes of growth in the body; we cannot manufacture a single drop of blood; but this incessant growth creates incessant demand for new material. To sustain the vital actions food is required. Here, then, begins the work of the Physician. Disease may be produced in many ways, and is often the result of injuries, but in the great majority of cases it is intimately connected with derangement of those processes by which the new material is appropriated by the body to its own uses, or to deficient supply of the material itself. The whole body is in a constant state of change; the individual of to-day has not the same body he possessed a few years since. The body must indeed be guarded from deleterious influences, from injury, from noxious miasmata, and from the thousand and one enemies to whose attacks it is exposed; but unless the aliment with which it is supplied be good, and fit, and sufficient, disease must sooner or later result. The necessity for food, of course, all admit. The proposition that many diseases owe their origin to defective supply of food is not novel; but do we adequately recognise it as a fundamental principle in the treatment of disease that food is the most powerful of remedies? Is not this the principle of which we are in search? We wish to avert death. To expel the disease from the body is a laudable object indeed, but still not the first. We must save the body, at all costs, from death. Let us not imitate the Medical enthusiast who in curing the disease destroyed the patient, and could only exclaim, *il est mort guéri*.

In our battle with disease it is mainly a question of supply. The best prescription will be useless if the life be not supported by food.

To give the nutrition-treatment, as it may be termed, its proper place, is not to depreciate our other resources. How much does humanity owe to Surgery! But the dexterity of the Surgeon will not avail if the strength and vitality of his patient be not preserved. The cordage of the ship must be kept in order; but that sunken rock towards which the vessel is rapidly drifting, and which threatens the whole fabric with destruction—we must at all costs keep clear of that. Again, in the obstetric department, where manipulative skill is often eminently serviceable, diseases are encountered whose rapidly fatal tendency is only to be averted by free and liberal administration of nourishment. Nor is it intended for one moment to undervalue the assistance we derive from drugs. They enable us to relieve pain, to alleviate suffering, sometimes absolutely to cure disease. The acepticism which has of late years replaced the old implicit faith in drugs is, thanks to the further progress of Medical inquiry, now in its turn giving place to a more accurate and precise estimation of the power and effect of drugs on the economy, from which the best results may be anticipated.

Other remedial measures—climate, exercise, baths, etc.—have an unquestionably powerful effect; but they are still subsidiary, and let it be remarked that their influence is so beneficial because they promote healthy nutrition. They facilitate the changes in the tissues, increase the demand for food, and promote its assimilation.

The tendency to death is, with some few exceptions, by way of exhaustion. The natural forces are greatly weakened; another step downwards, and life is gone. The mechanism of the body being intact, the restorative power of food is great to an almost incredible extent. When, as often happens, nature calls for food, the indication is plain enough; but when appetite is gone, consciousness wellnigh extinct, a knowledge of the extraordinary remedial action of food is of vast importance. To place within the alimentary tube something which it may readily take up, and which the body may, with what little power is left to it, convert into new force—to do this at the right moment and in the right way is often an exercise of the highest skill. The body is thus enabled to retain—though it may be only for a time—its hold on life. These considerations, in fact, lead us to attach so much importance to skilled nursing. The greater success of Medical treatment of late years is a good deal owing to increased attention in this particular. The importance attached to good nursing by those who lead Professional opinion is to be regarded, indeed, as indicative of the growing trust in the curative power of food; for the regular and skilful administration of food is one of the chief duties with which the nurse is entrusted.

Prevention is better than cure. A vast number of deaths are due to diseases which owe their origin to defective nutrition. Consumption in its many forms and disguises appears to be connected in the main with want of food. What has been observed as to the marvellous power of the nutritive treatment in arresting its progress enables us confidently to expect that, applied earlier, the disease might be prevented altogether. It is in childhood and youth that the changes in the tissues are most rapid, that growth is most evident, and it is at that time that material is required in greatest quantity. Disastrous results must sooner or later follow if during this period of rapid growth food is insufficient. Parents have their own ideas on the bringing-up of children, but doubtless in the future one great function of our Profession will be more systematically called into exercise—that which consists in regulating the supplies of nutritive material during these more critical periods of human life. Further, the great and evident curative power of the nutritive treatment where the changes are rapid gives us an indication as to what may be effected, though more slowly, in producing curative changes in the diseased organs of the body later on in life. So long as life lasts we may hope to effect something. Physical diagnosis, which has of late years attained so great a degree of perfection, will in future aid us materially in observing and appreciating the progress of these remedial changes.

Sanitary science, occupied chiefly in shielding the body from assaults from without, has of late years done much, and there is yet much for it to do. But a yet wider field for work appears to lie open to Medical art in the regulation and adaptation of food with the object of effecting radical and curative changes in the diseased tissues of the body. Medicine does not end here; this is but the basis and foundation of the edifice.

An earnest exhortation to a single-minded performance of duty, to the maintenance of self-respect, self-reliance, and self-control, as essential to success in life, concluded the address.

[We are obliged to postpone our reports of the remaining Introductory Lectures until next week.]

THE effects of the Chassepot bullet on the body have been experimentally illustrated by M. Sarazin, of Strasbourg. M. Sarazin has been shooting at a number of dead bodies, and he finds that though the entrance aperture is no larger than the bullet, the exit hole of the projectile is generally from six to twelve times the size of the latter. The arteries, bones, etc., are, of course, completely smashed.

THE Civil Tribunal of the Seine has finally decided that the late Lord Henry Seymour's property shall be divided into two equal shares, one half to go to the London, the other half to the Paris Hospitals—these beneficiaries to burden equally the cost of maintaining the favourite horses, and of the pensions and legacies to the old servants of Lord Henry and of the Marchioness of Hertford.—*Guardian*.

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ORIGINAL COMMUNICATIONS.

ON SOME

FATAL CASES OF RHEUMATIC FEVER,

ACCOMPANIED BY A VERY HIGH TEMPERATURE OF THE BODY—NAMELY, 110° AND 111° FAHR.

By SYDNEY RINGER, M.D.,
Physician to University College Hospital; Professor of Materia Medica and Therapeutics at University College.

These cases are of interest and importance, from the sudden occurrence in the body of the very unusual temperature of 109° and 111° Fahr., while the symptoms, at the time the temperature was thus preternaturally high, were peculiar, and, as far as I know, have not been noticed in the disease.

The patients of whom we are speaking at first progressed favourably, and, till the day of their death, there was no reason to be apprehensive of the issue of the disease. As is usual with rheumatism, by rest and treatment the pain in the joints grew less, and there was a notable improvement in the patient in other respects; indeed, one of them was apparently cured, and had received her discharge from Hospital for the following day. But while thus favourably progressing, there suddenly arose most serious and formidable symptoms, which indicated most profound alteration in the functions of the body, and death speedily followed the appearance of these symptoms.

This new phase in the disease differed in the manner of its invasion in the several patients. In one case it began with violent delirium which required to be restrained; in the second the delirium was less marked; while in the two remaining cases none was observed. The delirium, where it occurred, speedily grew less, and was replaced by heaviness and drowsiness, accompanied by a low muttering. At first they could be awoke and made to obey such directions as were given them, but the stupor soon grew deeper, and they became so profoundly insensible as to be insensible to pain; they could not be roused, nor made to give any signs of consciousness. In two of the cases delirium, as we have said, was absent, and stupor was the first circumstance to attract attention and to excite apprehension. This, as in the former cases, rapidly deepened into profound unconsciousness. While in this state of stupor their breathing was at first quick and superficial, but as the insensibility grew deeper it became slow, and was accompanied by stertor, and from the mucus which accumulated in their throats a constant rattling was caused by the air as it passed to and from the lungs. Soon their face and body assumed a livid hue, probably caused by the hindrance offered by the mucus in the trachea and bronchi to the free flow of air into the lungs. The breathing towards the end of life gradually grew slower, and at last ceased. They appeared to die asphyxiated by paralysis of the respiratory muscles, hastened by the obstruction occasioned by the mucus in their throats. During the chief part of the time this condition continued, the pulse beat full and strong, and was even bounding, and the heart, in those cases in which attention was paid to it, throbbed violently. The pupils were of medium size, and equal. It has been stated that in these cases, till within a short time of their death, there was no reason to fear a fatal issue. The time these serious symptoms continued before death put an end to them varied.

In one case the patient was seen sitting up in bed at 5 p.m., and at this time was apparently well. She had completely recovered for several days from her attack of rheumatism, and had received the order of her discharge from the Hospital for the following day. In half an hour from this time she was found by the nurse to be unconscious, and when seen by me soon after she was in a profound stupor. She died a little after 7 p.m. The temperature of this patient was noted several times; it reached 110° Fahr. It is but fair to say this case is given from memory; of the remaining cases we have full notes of their condition from the time of their admission to their death. Blake, at 7 a.m. on the morning of his death, took a hearty breakfast; at 8 a.m. the nurse in charge observed he wandered a little; at 8.30 the delirium was furious; soon he became unconscious and died. Death in this case occurred in one hour and a quarter from the commencement of these serious symptoms.

In the case of Wakefield the delirium on the night before her death was considerable, but although in the early part of the day of her decease she was very ill, yet there was nothing in her appearance to excite anxiety. At 9 a.m. her manner was peculiar; she died at 1.15 p.m. She could not have been in this critical condition more than sixteen hours, as on the evening before her death her temperature was not unusually high, neither was her condition in any way different from what it had been on previous days. In Boxall we cannot very accurately from our notes fix the time at which the symptoms were first aggravated. It is probable, however, the accession of this unusual condition began four or five hours before her death.

It is curious that in the three cases of which we have careful records this was the first attack of rheumatism. Of the fourth case we know nothing on this point. They were all young people: their ages varied between 20 and 29. Of the three cases of which we have notes the disease lasted but a short time, for Boxall and Wakefield died on the 9th, Blake on the 14th day of the disease. Three of these four persons were females; but these cases are too few to show what influence either age or sex has on the production of the symptoms of which we are speaking.

It is apparent from these cases that we cannot foretell from the course the disease runs that such a termination as is here described may be expected, for in one case the patient was quite convalescent, while in two other cases the disease was not of unusual severity, and in the remaining case, although the attack was a severe one, it was not of such gravity as to excite our fears. Can the temperature of the body help us in such cases, and enable us to foresee their ending? Apparently not, as in the patient who was convalescent it may be presumed the temperature was normal till the occurrence of these serious symptoms, while in the remaining cases the temperature continued at about the same height during the days they were under observation, and was not unusually high. Thus in two cases the thermometer marked daily a temperature of 102° or 103° Fahr., and in one of 105° Fahr. With two of the patients, however, on the evening preceding their decease the temperature rose rather considerably—that is, about 2° Fahr. above that recorded on previous evenings; but even with this increase of heat of the body the temperature was not unusually high, marking only 105° Fahr. on the thermometer, a temperature often met with in cases of rheumatism which proceed to a favourable ending; and, as in other diseases so in rheumatism, a sudden accession of 2° to the heat of the body by no means necessarily indicates the approach of serious symptoms and of death.

It has been held by some that in rheumatism there may occur a metastasis of the inflammation from the joints to the membranes of the brain, that the joint affection may suddenly disappear, and symptoms not unlike those described may occur from the membranes of the brain being attacked. The symptoms in these cases cannot be thus explained, for there occurred no such recession of inflammation from the joints; but the improvement in these parts took place gradually, and not more rapidly than is witnessed in other cases which proceed to a favourable issue. Neither did these symptoms occur simultaneously with the lessening of the inflammation in the joints, and, further, at the examination of the body after death the brain and its membranes were found to be healthy. In one case, indeed, the joint affection had completely disappeared for some time, and the patient was considered well. In this case no such recession could have occurred, although it is possible that here a relapse occurred, but the membranes of the brain, and not the joints, were affected. Yet in this case the brain with its membranes was found at the post-mortem examination to be healthy. It is obvious, from what has just been stated concerning the appearances of the brain and its membranes, that these symptoms were not due to meningitis.

Were these symptoms, with the extraordinary elevation of the temperature, due to the sudden supervention of inflammation of some of the organs of the body other than the brain? This explanation fails us; for, although in three cases inflammation of the heart or its membranes was found at the examination after death, this was not sufficient to account for the unusual symptoms which occurred, as in two cases the inflammation was very slight, and in all it commenced, as was proved by physical examination, many days before the new phase in the disease began, and it may be stated that the amount of inflammation which was shown by the post mortem examination is often met with in other cases in which the symptoms above described are entirely absent; and, lastly, in one case no inflammation of any of the organs of the body could be found.

As the symptoms present at the close of the life of these persons were very similar to those seen in patients suffering from blood poisoning—as occurs sometimes in jaundice, lead-poisoning, etc.—it may be thought that the death was due in these cases to a sudden suppression of urine, but no such suppression occurred in two cases in which the urine was collected. In both of these the urine was passed in abundance, and in one was very greatly in excess of the quantity usually voided in health, while the quantity of urea excreted the few hours before death was also in excess of the quantity excreted in the same time in health. Neither can the occurrence of these symptoms be ascribed to the influence of the medicines taken by these patients, as they were such as are generally given to people who suffer with rheumatism, and are often given to persons with other diseases where no such symptoms as those described follow their use. Boxall, indeed, took only camphor water, with, on the first few nights of her stay in Hospital, a few small doses of morphia.

It is well known that bleeding has the effect of considerably reducing the temperature of the body. Hence it was thought possible that some good effects might follow on general bleeding. With this view, in Wakefield, 12 oz. of blood were withdrawn from the arm. Yet during the time the blood flowed freely, and after the bleeding had been discontinued, the temperature of the body continued to rise, while the symptoms were in no way altered. It is necessary to observe that this patient was very stout and very plethoric, and it may be that the quantity of blood withdrawn was too small to exert any effect on the temperature.

Ellen Boxall, aged 20, was admitted into University College Hospital on May 29, 1862, under the care of Dr. Reynolds. For three weeks before her admission she had suffered from slight pain in various parts of the body. From the account she gave these pains appeared to have been seated in the muscles rather than in the joints. She continued at her work till the evening before her admission into Hospital, when she was seized with severe pain in several of the joints of her body. The attack of rheumatism was a severe one, whether we measure its severity by the general symptoms, by the pain, or by the temperature of the body. She was under treatment before she died eight days, and was severely ill in all nine days. While in Hospital, in many respects she improved, as the following account will show:—

During the first few days she suffered most severely from pain in most of the joints of the body; but not only were those joints usually attacked by rheumatism painful, but she also complained greatly of a pain along the collarbone, most marked at the sterno-clavicular articulation, which was made worse by speaking, swallowing, and breathing. There were also much pain and tenderness along the lower part of the spine and in both heels. The joints were but little swollen, and but little reddened. The pains in these parts continued to be severe for a few days, but then grew less, and on the last two days of her life she complained but little, even when her limbs were moved or the joints handled.

Throughout the attack she looked very ill, and her expression was anxious and imploring. As the pain declined in severity, her expression improved, and became more natural. Her manner was on some occasions so peculiar as to lead us to think she was hysterical. At these times she called out loudly without any apparent cause, and then apologised for the disturbance she had made. On one day she said she was unable to raise her arms or to move them at all. This, we thought, was due to hysteria, as it was owing to any pain which movement caused in her joints. She was always free from pain of the head.

At first her tongue was dry and red, her appetite bad, and her thirst great. In all these respects, however, she soon improved. The sweating, which was very profuse during the first days of her residence in Hospital, soon lessened, and on the last day of her life had nearly ceased. By physical examination, her lungs were proved to be natural.

Percussion of the præcordial region led us to think there was pericardial effusion; but the post-mortem proved to us that on this point we were wrong. No endocardial murmur was heard at any time; but on the first day of her admission, friction sound was heard over the lower part of the sternum, and this continued to be present at different parts of the præcordial region to the time of her death.

She was very delirious during the whole of her illness, and was especially so on the night preceding her death. With the exception of the delirium, all her symptoms grew less severe; but she was always very ill. On the morning of the day of her death, she was much worse. She was very restless, and constantly muttered. If her statement could be relied on, she was free from pain. The eyes were bright, and her face flushed, and her breathing was much hurried. She continued thus during the day, and at 5 p.m. she was discovered by the nurse to be unconscious. I was sent for at 6.30 p.m., when her breathing was stertorous, and she was profoundly insensible. She died about half an hour after this time. Her temperature was always high. Thus on the first five days of her stay in Hospital, it rose to 105° Fah. On the next two days, those immediately preceding her death, it marked only 101° Fahr. On the morning of her death, at 9 a.m., it was 105°; at 12, 106·2°; at 3 p.m. 106°; and at 6 p.m., half an hour before her death, 109·2°.

Post-mortem.—Brain, medulla oblongata, and their membranes quite healthy. The lungs were congested posteriorly, but were otherwise natural. Pericardium contained about three-quarters of an ounce of opalescent serosity. The membrane covering the heart was finely injected in many places, and on the base of the great vessels there were a few flakes of lymph. The valves of the right side were healthy, but a few vegetations were seen on the mitral valve at the part where they are usually met with. Aortic valves were healthy. Kidneys were rather congested. Several of the joints were opened; the synovial fringes were slightly injected; there was no excess of the fluid, neither was this altered in character. The cartilages were rather opaque and yellow. Spleen was large and firm. By microscope the liver and kidneys were proved to be healthy, but the cartilage from the joint was decidedly too granular.

Medicine.—May 29: Mist. camph. t. d. s.; morph. hydroch. gr. ¼ n. s. May 30: Tinct. opii ♏ xxx. n. s. May 31: Morph. hydroch. gr. ¼ n. s. June 1: Morph. hydroch. gr. ¼ n. s. June 2: Pil. ij. n. s.; haust. domest. vesp.; tinct. opii ♏ xl. n. s.

M. Blake, 23 years of age. This was his first attack of rheumatism. Until the night before he died, he appeared to progress most favourably, and there was nothing in his appearance or his symptoms to excite apprehension. Most of the joints of his body were attacked; the pain and tenderness, however, were by no means great. He looked a little anxious, and his lips were a little dry, and his tongue was thickly coated with fur. He had no pain in his head or chest. He sweated most profusely, so much so that the perspiration ran down his body in big drops. The heart's dulness by percussion was natural in its bruit, and the apex beat in the fifth interspace. There was heard double friction sound over the whole heart region. This was loudest at the base. During his stay in Hospital the pain in his joints grew less, and was only noticed on the movement of his limbs. His rather anxious look left him, and the intense thirst ceased, while the sweating, though always considerable, much diminished. After a few days' stay in Hospital, a soft systolic murmur was heard at the apex, but nowhere else. During the night before his death he complained of feeling heavy, but he was not delirious. He drank very largely of water—indeed, he emptied three large jugs. At 7 a.m. of the morning of his death he ate a fair breakfast.

The temperature of his body daily rose to 103·4°, until two days before his death. On the evening before he died, it was 105·4°. At 8 a.m. of the day on which he died it was noticed that he wandered, but this was thought by the nurse to be "temper." At 8.30 I was sent for; he was then very delirious, he rolled violently about the bed, and required to be held down. This violence quickly passed away, and he then lay in a half-unconscious state, and moaned loudly. His breathing was irregular and jerking. His eyes were wide open; the pupils were equal and of medium size. The unconsciousness soon deepened, and he could not be roused. He became very pale and rather livid. The soft parts of the chest fell in with inspiration. The lividity soon greatly increased; this was especially noticed in the skin of his chest and around the miliary vesicles, with which the surface of the body was largely covered. His heart while in this state beat most violently. His pulse was regular in rhythm and force, and beat 186 in the minute. At 8.40 the temperature of his body was found to be 109·4°; it gradually rose, and at 9.15, the time of his death, it was 110·8°.

His urine was always free of albumen. The quantity of urine that he passed just before his death was enormous. Thus, from January 1, 9 a.m., to January 2, 6 a.m., it amounted 4800 c.c. This contained 45·600 grammes of urea.

Post-mortem.—Brain and its membranes healthy, not even

congested; lungs congested at posterior part, otherwise they were natural; the pericardium contained rather less than three ounces of deep red serosity, which contained no lymph. On the pericardium over the base of the heart, where it joined the aorta, there was seen a slight roughness from lymph. This was small in quantity, and there was none on any other part of the heart. Mitral valves were slightly incompetent; blood in heart very fluid; valves of right side were natural; some small vegetations were found on the mitral valve; aortic valves were healthy; the liver and kidneys and other organs were healthy.

Treatment.—Dec. 24 (day of admission): Calomel. gr. ij.; ext. coloc. gr. v. st. 25th: Pot. bicarb. gr. xxx.; aquæ ʒjss., every three hours. Liq. opii ɱxxx., to be taken at night. 27th: Eight leeches were applied over heart. Pot. nit. gr. x.; morph. hydroch. gr. ¼, to be taken every sixth hour. Haust. sennæ ʒjss., to be taken in the morning.

Diet.—Dec. 24: Beef-tea and milk. 31st: Rice pudding.

E. Wakefield, 29 years of age, was admitted into University College Hospital April 9, under the care of Dr. Fox. She was a stout full-blooded woman. This, her first attack of rheumatism, began a few months before her admission, and was marked by slight flying pains in her joints. She was able to continue at her work till April 5, when she was compelled to take to her bed. At the time of her admission she suffered from pain in most of her joints; she was always free from pain in the head, and was not delirious till the night before her death. The temperature of her body rose daily to 101° and 102°, but on the evening preceding her decease it reached 104·2°. With the exception of this rise of 2° Fahr., up to this time she appeared to be in the same state she had been on previous days. At about 9 p.m. of this evening she was delirious, and talked much during the night. She got out of bed several times. At 5 a.m. of the following morning she was much quieter. On entering the ward at 9 a.m. I noticed she was very ill; she appeared to be very restless, and rolled her head from side to side; she took no notice of circumstances around; she appeared to be rather delirious and muttered much; she often contracted her brows and distorted her face into various grimaces; any request that was made of her was instantly obeyed; thus she protruded her tongue when told, etc. Her temperature at this time was 107·8°. At 9.55 it had risen to 108°, and her pulse beat 144 in the minute. Her heart throbbed strongly. At this time (9.55) her face was flushed, and slightly moistened with perspiration. Her lips, which were dry, had on them some sordes. The pupils were equal and of medium size. Her breathing was irregular; now quick, now slow, always superficial. There was no paralysis of any of her limbs. At 11.20 she was much worse; the insensibility deepened until she became quite unconscious of pain. Her arms then fell heavily; they occasionally twitched; now it was observed her breathing was stertorous, that her face had become pale and rather livid. Mucus dried on her eyes; her pulse beat 152 in the minute. 11.38: Temperature was 109·4°; at this time blood was taken from her arm. 11.55: Bleeding discontinued; 12 oz. of blood were withdrawn. She was not in any way benefited by the bleeding; her symptoms and temperature continued the same; and at 12.10 the temperature was 110° Fahr. At 1.15 her temperature was 110·8°. At this time she died.

Post-mortem Twenty-three Hours after Death.—Rigor mortis well marked; pericardium everywhere adherent to heart; the adhesions were easily broken down; the visceral pericardium was finely injected, and in front roughened with lymph; the lymph was much more abundant at the back of the heart; a few ecchymoses were seen under the pericardium. Heart's substance softened, pale and cloudy; valves of both sides healthy; those of left side deeply stained with blood. On the left side there were, under the lining membrane, several ecchymoses; blood in heart was very little coagulated, very dark-coloured, almost black. Right side of heart contained a very large quantity of blood. Heart's substance was seen by microscope to be too granular. Lungs, with exception of some congestion at the back part, were natural. Liver congested, very soft, too opaque; kidneys congested; other organs healthy. Several of the joints were opened; the fringes were a little injected; they did not contain any excess of fluid, neither was this altered in appearance. Cartilage looked rather opaque, and that on back of patella softened (query, more than may occur in health?). Brain and its membranes natural appearance.

She took small doses of opium and some bicarbonate of potash with nitrate of potash.

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Medical Times and Gazette.

SATURDAY, OCTOBER 5, 1867.

THE INTRODUCTORIES.

Shall we be laughed at as a mere Utopian dreamer if we confess the belief that the day will come when progress and improvement shall have so triumphed over custom, self-interest, vested interests, and other obstacles, that, instead of a dozen Medical Schools *in* London, there will be one Medical School *of* London? However improbable, and almost impossible, such a change may at present seem, we hope and believe that it will come; and in thinking of it just now we are forcibly struck with one special advantage that will then accrue to ourselves. In that good time, instead of being obliged, at each commencement of the Medical year, to fill our pages with short and imperfect notices of the opening addresses delivered at two or three largish and seven or eight small Schools, we shall have to find room for only one discourse, addressed to the Medical students of the metropolis! It does occur to us, however, that perhaps out of the present state of things one especial advantage and good may arise. Nearly all our daily contemporaries publish more or less full reports of these opening addresses—addresses which vary much in impressiveness and eloquence, in degree and character of detail, and in the manner in which the given theme is worked out and modulated, but all alike inspired with the same high tone of morality and philosophy; all earnestly impressing on the student the dignity and noble character of the Profession he has chosen; all pointing out to him its glorious aims, its difficulties, and its responsibilities; all insisting on the steady and unflinching industry, the self-denial, the pureness of character and life required from all who would be worthy members of it. Now, if we are to suppose that the public swallow, and in any degree assimilate, the mental food thus provided for them, if they read at all these addresses, delivered by so many different Professors, surely they must gradually be indoctrinated with a larger and truer idea of Medical science and art than that now most generally held. And the public at large will no doubt be more impressed by a multiplicity of addresses, all breathing the same spirit of highmindedness and devotion to labour, than by a single address, no matter how eminent and eloquent might be its author.

The addresses we publish this year all do great credit and honour to their respective authors. We regret much that we can give only such sketch notices of them; they well deserve reporting in full, and would enrich and adorn any journal, and the short reports we are restricted to give but a very faint idea of their admirable character, or of the care, thought, and labour that have been bestowed on them. Nor is it possible for us now to attempt to point out their varied excellences or their special characteristics. We hope to take up the subject again very soon, but must now be content to remark that Dr. Odling at St. Bartholomew's, and, still more

fully, Dr. Graily Hewitt at University College, dwelt especially and forcibly on the great value of diet and regimen in the treatment of disease—on restorative or nutritive medicine, if we may so call it, as distinguished from medication by drugs. Dr. Odling's admirable address included a very eloquent biographical notice of Lawrence, from the pen of Mr. Savory; this will of course be published, and will be eagerly read. Mr. Durham at Guy's, and Dr. Letheby at the London Hospital, indulged, and with full justification, in laudatory sketches of their respective Hospitals and schools. Dr. Letheby naturally dwelt much on the value and importance of hygienic medicine. Mr. Durham warned students and Medical men against "idols," in the Baconian meaning of the term. We endorse his recommendation of the study of the "Novum Organon" by Medical students. Dr. Broadbent, at St. Mary's, gives sound, clear, practical advice for guidance as to study, method, and conduct throughout the student's career, with eloquent warnings and exhortations on what the Medical man should guard himself against, and what he ought to be to himself and his fellow-men. Mr. Holmes, at St. George's, tells us of the many and important improvements being made in, and the additions to, that School and Hospital; and endeavours to impress on the students all the requirements demanded from those who "would practise their Profession with advantage to their patients and with honour to themselves." In the excellent address at the Middlesex Hospital, Dr. Cobbold dwells impressively and most rightly on the semi-sacred light in which the sick wards should ever be regarded by students. Dr. Miller's lecture at King's College is an admirable epitome of all that should guide, train, and help the Medical student and Practitioner throughout his career. Mr. Solly, at St. Thomas's, closes his earnest exhortation to devoted studiousness with a paragraph which may be taken as the text of all these discourses:—

"The whole truth is, that if you wish to attain that excellence which I will give you all the credit of wishing to attain, you must make the dissecting-room, the lecture theatre, the chemical laboratory, and the wards of the Hospital your dwelling-place. Works on anatomy, physiology, chemistry, Medicine, and Surgery should be your bosom friends, and the noble Profession of Medicine, in its most extended meaning, the only goddess of your idolatry."

A BRACE OF MURDERS.

The two days' trial at the Central Criminal Court of John Wiggins for the murder, on July 24, of the woman Agnes Oates, with whom he cohabited, has terminated in a verdict which cannot but be satisfactory to all lovers of justice. No one saw the offence committed, and the decision of the jury was based alone upon what is technically designated circumstantial evidence, the most convincing and important of which was given by the Medical gentlemen who were put into the witness-box by the prosecution. The facts the true sequence and solution of which had to be determined were briefly these. At about 5 o'clock in the morning of July 24, Wiggins appeared dressed in the street in which his house was situated, with his throat cut, at the same time that an alarm of murder was given. On some neighbours going into his room, the woman was found lying on the floor dead with her throat deeply cut. His own tale, when the alarm was given at 5 o'clock, was that the woman had attempted to murder him by cutting his throat as he lay asleep upon the floor with his clothes on, that he escaped from her into his father's room to get assistance, and when he returned he found that she had committed suicide. This tale he adhered to, and it formed the basis of the defence at his trial. There was no one else who could have cut the woman's throat, unless, indeed, Wiggins himself did it, and then cut his own in order to furnish the necessary evidence to establish the truth of his story and divert suspicion from himself. And this is what the prosecution advanced as the correct order of occurrences, and what the verdict of the jury affirmed.

There were two orders of inquiry necessary for a decision between the rival tales—the one having reference to the deceased woman, the other having reference to the man Wiggins. At the first blush, the account given by Wiggins was improbable. We think that the experience of the whole Profession will support us when we say that, taking an equal number of suicidal cut-throats and homicidal cut-throats, the severe wounds will preponderate greatly over the trivial ones in the latter category, and the trivial over the severe in the former. Hence, given two cut-throats, one of which is known to be homicidal and the other suicidal, there would be a high *primâ facie* probability that the homicidal would be the case in which the wound was the more severe, and the suicidal that in which the wound was the less severe. Now the wound in the throat of Wiggins was by no means a serious one; it bled a good deal, it is true, but the windpipe was uninjured, and no harm was done to any part important to vitality. It was just such a wound as may be seen almost any week at one or other of our large Hospitals, having been made upon the patient by his own hand. The wound in the throat of the woman was exceedingly deep, extending even into the bony substance of the vertebræ, and could only have been effected by a firm, resolute, and decided cut. Dr. Horton and Dr. Taylor both stated their belief that no suicidal attempt would produce such a wound as this, except under such a degree of mental excitement as would amount to insanity, and the woman was clearly not insane. Dr. Taylor added very properly, that after a division of the vessels and vital parts so thorough as in this case, no suicide would have the power to inflict an injury upon the bone. So much for the most important information afforded by the *character of the wound*. Next as to the *position of the body*. Ten minutes after the alarm was given, a neighbour, Dunn, summoned to the room, found the woman lying upon her back with arms and legs outstretched, and the head supported by a pillow and the jacket of the prisoner. Besides this there was a chair, with blood upon the seat of it, so placed as to cover the head, and requiring to be moved in order to extricate the head for examination. It is clear that, after such a wound as the woman had received, she could not have herself made all these arrangements. It is not likely a man with a wound in his own throat would have made them, and he was the only person who had the opportunity. It must have been done at some time before he left the room to give the alarm; and yet the story the man told was to the effect that it was on his return to the room that he found her with her throat cut.

The next important part of the evidence related to the *time that the woman had been dead* when the alarm was given. When Dunn and his wife saw the body ten minutes after they were summoned, the legs were found to be cold, and when Dr. Horton examined it at half-past five, the only warmth remaining was on the abdomen, and the *rigor mortis* had commenced in the legs and arms. The statement of Wiggins was that the woman had wounded herself subsequently to his wound, and just before the alarm; so, if his account had been true, rigidity commenced half an hour after death. Dr. Wilkes stated that in his experience rigidity had never commenced under three hours after death, and Dr. Taylor, from the conditions observed, was of opinion that at least two hours, and probably from three to five hours, had elapsed since death. Dr. Horton also found that the blood on the floor and about the room was dry, the only wet blood being upon the hearthrug, over which the head was lying. Now the wound in the man's throat was admittedly recent, and, whatever the exact time might have been when the woman's wound was inflicted, this certainly was not recent—she had evidently been dead very much longer than half an hour. So far as the examination of the deceased woman went, therefore, the facts were such as could only be consistent

with the view that she had been wounded and placed in the position she was found in by some other person than herself, and that her death had taken place some hours before the alarm was given. Now for the man. We have said that his wound was recent, inflicted, according to his own account, just before he gave the alarm; it was also by no means a serious one. The bleeding was not sufficient to cause fainting, or the character of the wound such as to prevent his walking about and speaking freely. A woman who had been dead some hours could not have inflicted it, and there was no one else to do so but himself. There were cuts in the handkerchief which he wore round his throat, but unfortunately they rather told against than in favour of his innocence, since they had evidently not been made when his throat was cut, inasmuch as they were not soaked with blood, as they would have been had the knife passed through the handkerchief on its way to and from the throat. Out of sixteen folds there was no blood at all upon fourteen through which the cut passed, and Dr. Taylor expressed his belief that in one place, which was bloody, the cut had been made when the blood on it was dry. The inference naturally was that the cuts were made in the handkerchief when it was not upon the neck, and in order to give a colour to the story invented by the murderer. It is thus that, fortunately for society, a criminal or simulator, with a view to make assurance doubly sure, often overacts his part, and furnishes proof to his own condemnation.

In the second trial, to which we now propose to advert, the defence set up was the insanity of the prisoner at the time the act was committed. This was the trial of Louis Bordier for the murder of a woman named Mary Anne Snow, with whom he had cohabited for thirteen years, and whose throat he admitted having wilfully cut early in the morning of September 3. The only evidence of insanity given was that of the Surgeon called to the house at the time, Mr. G. Simpson, of the Old Kent-road, and some perfectly coherent letters written by the accused to his brother prior to the murder, in which he complained of having submitted to much misery for eight months past, and expressed his intention to kill his wife and children and then to take away his own life, stating that he had determined upon this a fortnight previously. They are the letters of a man completely in his sound mind, but utterly devoid of any proper sense of religious obligation or proper moral training. And that is all. They plainly state that he was about to commit the crime contemplated to save himself from misery as well as his family. More than anything else, they put one in mind of similar letters not uncommonly found when a Frenchman and his paramour have agreed together to commit suicide by the fumes of burning charcoal. Mr. Simpson said that these letters did not at all affect his opinion that the man was insane, and that he considered they were written under a delusion. When asked by the counsel for the prosecution, he explained that the delusion was "that he must die, and that it was necessary he should die, which was a very common form of insanity." To this explanation we must demur. The man gave distinctly a reason for his meditated crime—namely, the misery he was suffering; and no doubt he had suffered. Three months previously he had been in Hospital for anal fistula, and although the bodily suffering had probably been relieved by the operation he underwent, it is not at all unlikely that the associated mental depression had not simultaneously disappeared. Such a consideration may be a fair ground on which to urge a commutation of the sentence of death, but it is not an argument to be used in support of a plea of insanity, except collaterally to other proof of a more decided character. And no such proof was forthcoming. The two governors and the two Surgeons of the prisons in which Bordier had been confined since his crime had failed to perceive the least indication of mental disease, nor did the counsel for the defence presume to call witnesses in support of their allegation. They relied alone upon the letters and the opinion given by Mr. Simpson. And now let us see how Mr. Simpson's opinion was formed upon a matter respecting which a Medical man cannot be too cautious, too diligent in inquiring into all the physical and mental antecedents in the life and habits of the individual in question, or too protracted in his personal observation. Mr. Simpson, it appears, saw the man shortly after the commission of the crime; he confessed to him that he was the man who did it, and showed him pantomimically how he did it. Such conduct and his coolness and self-possession at the time were quite in accordance with the letters put into court. Both, however, are, to Mr. Simpson's mind, indications of insanity. It is to be observed that Mr. Simpson had never had anything to do with the man before, and was only in his company thirty-five minutes. Yet this time was sufficient to convince him of the man's insanity, and even to determine the special form of insanity he was labouring under. First of all, in Mr. Simpson's opinion, the man's manner and appearance indicated insanity. So also did the tone of his voice—"It was that of a man who was thoroughly satisfied with what he had done, and expected to be appreciated." Hence it seems clear that Mr. Simpson started with a prejudice in favour of the man's insanity, and the suggestive style in which he stated at the trial that he proceeded to question him—a style never admissible when the simple truth has to be elicited—was such as not unnaturally issued from such a preconceived notion. Is it any wonder that—forgetting that a foreigner has not the command of our language that an Englishman possesses—he discovered in the answers he received a confirmation of the view he had adopted? We shall not reprint all these questions and answers, inasmuch as they by no means tend to exhibit Professional investigation in the most favourable light, or to lessen that distrust in Medical opinion so commonly expressed both from the bench and by the bar in lunacy investigations. Perhaps the most extraordinary part of that gentleman's evidence, as given in the *Times*, was this—that, "judging from the letter, he should conclude that the prisoner knew he was going to commit a crime against the laws of God and man, but, from the experience of what he had known insane men write and do after they had so written, he should expect that he had not the power to appreciate the legal quality of the act." We can scarcely believe that this is a correct report of what Mr. Simpson said, for if it is it shows a confusion of ideas which must have been apparent at once to the legal minds engaged in the trial, if not to the jury. A man knew he was about to commit a crime, and yet did not know the legal quality of the act—that is, did not know it to be criminal. We are not disposed to lay entirely at the door of the Medical Profession all the absurdities they are taxed with, and all the mistakes they commit, when called upon to give evidence in courts of justice. The legal theory, as well as the popular notion, appears to be that by virtue of his diploma to practise Medicine, and also by virtue of his experience in the course of his practice, any general Practitioner or Physician ought to be qualified authoritatively to instruct the court by his skilled opinion upon all matters coming under its cognisance in the prosecution of criminal business that relate to the structure and functions of the human body, the detection and mode of action of poisons and other agencies producing death, and even to the most delicate psychological questions. The sooner this notion is dispelled, the better. It is true that although psychology forms no part of Medical education in this country, instruction in Medicine and Surgery as they apply to such matters is given in the schools, but, like that given upon other subjects, it is, and, in the time allotted to study before examination, can only be, elementary; and after receiving his diploma a Medical man, in ninety-nine cases out of a hundred, has quite enough to do in gathering experience upon those practical matters which relate to his daily duties, the cure or alleviation of disease. It is no slur upon the Profession, then, to say that every member of our hard-working and, in its

own strict department, highly trustworthy community, is not fitted to give an opinion upon subjects which, perhaps, he is not called upon to consider once in a year. Our members are placed by the law and custom in a wrong position, unfair to their body at large and unfair to themselves separately, and hence in one which leads them not rarely to bring Medical learning generally into disrepute. From such a position those engaged in the ordinary practice of Medical art ought to seek release, if not for their own reputation's sake individually, which is far more valuable than the paltry gain attaching to the present system, yet assuredly for the reputation of the order to which they belong. In the meantime, it would be far better to acknowledge incapacity where incapacity is felt, certainly to avoid volunteering opinions upon such delicate questions as the insanity of an accused person. In the case before us we give Mr. Simpson full credit for the most excellent and kind motives and for full belief in his own theory, but we say that it is to be regretted that he compromised the Profession by giving expression to an opinion in itself crude and unphilosophical, and formed upon what appears to have been a very brief and inadequate inquiry.

THE TRUE NATURE OF OZONE.

There can hardly be a doubt that the long-desired secret of the nature of ozone is at last revealed, and that this curious body has, by the latest of the persevering labours of the last quarter of a century, been removed from the region of mystery into the clear light of scientific knowledge. Chemists may well feel proud that so obscure and difficult a problem should so soon have received a satisfactory solution—that they are able with so great a degree of confidence to assert that they can not only prepare the substance by a great variety of methods and test for it with the nicest accuracy, but are acquainted with its nature, its density, and the cause of its marvellously energetic properties.

In 1785 the well-known electrician Van Marum, passing electric sparks through oxygen, which had been discovered but eleven years before, found that a peculiar odour was imparted to the oxygen, and with it the power of acting directly on mercury. The odour being identical with that observed in the neighbourhood of an electrical machine in action, Van Marum not unnaturally ascribed it to the electricity, and passed it by as "evidently the odour of the electrical matter." It was not until 1840 that Professor Schönbein, of Basle, who is justly regarded as the discoverer of ozone, took the subject up, obtained the odorous substance by several different methods, and gave it the name it now bears, and which he coined from the Greek ὄζω, I smell. From that time to the present Schönbein's whole love has been devoted to his offspring. He seems to work at nothing else, to think of nothing else, and all the reactions of chemistry are only interesting to him in so far as they relate to the operations of oxygen. To him we owe a vast collection of interesting facts, experiments, and tests, among which not the least important is the well-known starch and iodide of potassium reagent. Unfortunately, however, his theories have been by no means so valuable as his facts, and all that we know of the true nature of ozone we owe to the labours of other chemists.

One of the earliest hypotheses on the nature of ozone was that advocated by Williamson and afterwards adopted and supported by Baumert. It represented the substance as a teroxide of hydrogen, and it rested mainly on the alleged fact that water was always formed during the destruction of ozone. But Becquerel and Fremy in 1852, and still more distinctly Andrews in 1856, upset this hypothesis by proving that ozone might be produced by the passage of sparks through pure and perfectly dry oxygen, and that it was identical in its nature by whatever process it was prepared. Both observers confirmed the conclusion previously arrived at by Marignac and De la Rive, that ozone was nothing but an altered or "allotropic" variety of ordinary oxygen. In 1858 Schönbein started a new and very plausible hypothesis. He announced that ordinary oxygen was a neutral combination of two oppositely electrical and therefore very active bodies. For one of these—the substance formed during the electrisation of oxygen or air, the electrolysis of water, the slow oxidation of phosphorus, and the decomposition of most metallic peroxides—he retained the old name ozone, and he called those substances which evolved this kind of oxygen *ozonides*. Ozone was negative oxygen, and its symbol was ⊖. The other, the positive variety of oxygen, ⊕, or *antozone*, he did not succeed in isolating, but he assumed its existence in a certain class of peroxides which he named *antozonides*, and of which the peroxides of hydrogen and barium are the most important members. The so-called ozonised turpentine, cod-liver oil, and ether are likewise, according to Schönbein, antozonides. When an ozonide and an antozonide are brought in contact under suitable conditions, the negative oxygen of one combines with the positive oxygen of the other, and the result is the evolution of ordinary or neutral oxygen. But this ingenious theory, although it is still received by many chemists in England, France, and Germany, was entirely demolished in 1863 in some elaborate researches by Mr. (now Sir) B. C. Brodie. That accurate chemist proved that the hypothesis of two different kinds of oxygen was entirely unnecessary for the explanation of any known facts—that it was, indeed, as gratuitous as it was unfounded. That oxygen as well as other elements may exist in different polar states in different compounds is indeed highly probable, and was maintained by Brodie himself as long ago as 1850. But that is very different from maintaining, as Schönbein does, that the two kinds of oxygen are essentially distinct and capable of isolation.

The next important step in the history of this subject was taken by Andrews and Tait, in a magnificent research presented to the Royal Society in 1860. These observers, confirming the previously known fact that only a small proportion, in extreme cases only one-twelfth, of the oxygen can by the electric discharge be converted into ozone, found that a constant and considerable diminution of volume accompanied the change. 100 volumes of oxygen, when subjected to the silent discharge, which is found to be the most operative, may contract to about 92 volumes, but never to much less than this. Hence ozone must be denser than oxygen—a fact which alone would suffice to refute Schönbein's view. But another most startling fact was next observed. Mercury, or some other oxidisable substance, was introduced into the ozonised oxygen, and the ozone entirely absorbed. Strange to say, the oxygen which remained behind was found to have precisely the same volume as it had before the removal of the ozone. If 92 volumes of ozonised oxygen were so treated, 92 volumes of oxygen free from ozone would in all cases remain behind, so that the density of ozone appeared to be absolutely infinite. On the other hand, if the ozonised oxygen were heated, the original 100 volumes would be obtained, because, as every one knows, ozone is destroyed by heat.

Andrews and Tait did not attempt to account for this extraordinary fact; but soon afterwards Dr. Odling, with his accustomed acuteness, suggested an explanation which has recently been confirmed in a most striking manner by an experiment of Soret's. (*Comptes Rendus*, November 27, 1865.) It is now conceded by nearly all chemists that each molecule of oxygen in the free state consists of two atoms—that, in fact, the true formula for free oxygen is O_2. Odling suggested that the formation of ozone might really be the condensation of another atom of oxygen into each molecule, and that the formula for ozone might therefore be O_3, and its density one-half greater than that of oxygen. When 100 volumes of oxygen were reduced by ozonisation to 92, it might be supposed that 8 volumes of oxygen combined with 16 volumes,

and produced 16 volumes of ozone. The change might be represented in this way :—

$$4O_2 + 8O_2 = 8O_3,$$

a molecule of ozone O_3 occupying the same volume as a molecule of oxygen O_2. The absorption of the ozone by mercury, iodine, etc., might really be only the removal of the third atom of oxygen, which would of course leave the volume unaltered.

$$\underset{16\text{ volumes}}{8O_3} + 8Hg = \underset{16\text{ volumes}}{8O_2} + 8HgO.$$

The same view would account for the mutual reduction which ozone and peroxide of hydrogen exercise upon one another, and, in fact, for all known reactions of ozone.

$$\underset{\text{Ozone.}}{O_3} + \underset{\text{Peroxide of hydrogen}}{H_2O_2} = \underset{\text{Oxygen}}{2O_2} + \underset{\text{Water}}{H_2O}.$$

This beautiful hypothesis, however, must have remained a mere hypothesis but for the remarkable experimental verification which it has received from the hands of M. Soret. We have seen that all ordinary substances are only capable of removing one atom of oxygen from each molecule of ozone; but Soret has at length succeeded in finding a body—oil of turpentine—which absorbs the whole molecule, the whole three atoms of oxygen. To take our previous illustration, if the 92 volumes of ozonised oxygen were treated with oil of turpentine, a dense white cloud would appear, the ozone would disappear, but instead of the volume remaining the same it would contract to 76 volumes, the $16O_3$ having been removed bodily instead of being merely reduced to $16O_2$.

This experiment seems to place the matter beyond a doubt, and instead of the mass of hypotheses which so lately reigned, we have now a simple, beautiful, and coherent theory which affords an intelligible explanation of known facts. It is the more to be rejoiced at, since the importance of ozone in art as well as nature seems to be rapidly developing, and it is impossible to say how high that importance may rise.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

The correspondence which to-day ends in our columns will have made those of our readers who interest themselves in Professional disputes acquainted with the *casus belli* between Drs. Richardson, Leared, and Powell, the retiring Medical Officers of the Royal Hospital for Diseases of the Chest, on the one part, and Dr. Dobell and the Committee of that institution on the other. It is not our intention to express any opinion on matters in dispute which are not directly affected by the rules of Professional conduct. The discourtesy with which the Committee of the institution have received the retirement of three of their oldest honorary Medical officers, and the alteration of a minute of a past meeting of the Committee, by whomsoever effected or sanctioned, are offences, in the one case, against common courtesy and gratitude; in the other, against common fairness, which no comments of ours can either palliate or magnify. As censors, however, of Professional conduct, we are bound to reiterate our opinion that Dr. Dobell distinctly overstepped the limits of Professional propriety by the issue of the diet handbills bearing his name. We can endorse the objections to these handbills which Drs. Richardson, Leared, and Powell have urged against them—that *primâ facie* they do not appear to have been intended for the poor, and that if the directions they contain were really complied with by a pauper class, it could only be done by using the handbills as begging-letters, and thus of necessity circulating the name of the author amongst the wealthy. We do not accuse Dr. Dobell of having had this intention, but we say that *primâ facie* the handbills suggest it. The use of such handbills, and the minor indiscretions of the issue of bottles of pancreatic emulsion bearing his name from the Dispensary of the institution, and his acceptance of the office of Secretary, were reasonable grounds of offence to Dr. Dobell's colleagues, and, in our opinion, furnished sufficient reasons for their resignation. To take the most favourable view of the matter, Dr. Dobell has erred in his judgment of what is allowed by Professional propriety, and of what is commonly held to be due from a member of a Medical staff to his fellow-officers. We are glad to believe that Dr. Dobell acted in these matters rather from want of thought than with the intention of infringing Professional etiquette, and we are confirmed in this belief by the steps he has taken to alter the obnoxious handbills by the omission of his name; but this, although it may be an apology, does not diminish the mistake.

THE WEEK.

TOPICS OF THE DAY.

The St. Bartholomew's dinner took place on Tuesday evening last, under the presidency of Mr. Paget, who was welcomed on his return from Wiesbaden—where, as all know, he has been in Professional attendance on H.R.H. the Princess of Wales—by the presence of more than one hundred of the old and present students of the School. As may be supposed, his speech, on proposing the health of their Royal Highnesses, was listened to with the most intense interest and anxiety. We are most glad to state that the report he was able to give of the progress made by her Royal Highness is in every respect gratifying and satisfactory. After noticing that the whole of the interior of the knee-joint had been the seat of intense inflammation, he observed "that his audience, more than any other body of men, would appreciate the great value and meaning of his words when he could declare, most positively, that now all cause for anxiety has ceased. The most perfect recovery would result in the course of time, and when he left her Royal Highness she was able to walk about the room with the aid of two sticks, and even to go up and down stairs. The manner in which the joint had recovered after such an attack was a splendid certificate of the soundness and vigour of the Princess's constitution, and he was happy to say that she was looking as well and as lovely as on the day when her beauty and grace first delighted the eyes of tens of thousands cheering her progress through London."

The town of Guildford has been visited with a severe outbreak of typhoid fever. Out of a population of 8000 there have been about 300 persons attacked. Dr. G. Buchanan has been sent by the Privy Council to investigate the cause of the outbreak, which it seems not improbable will be found in the water supply. It appears that the district invaded by fever is almost coterminous with that which has been recently supplied with water from a new well and reservoir, and that this well is so near the outfall of one of the town sewers as to render it probable that some sewage contamination of the water may have taken place. The fever has not spread by contagion. It has neither attacked the very young nor the very old. In a large number of instances the servants of families have been the first victims, and it is said that, in many of the better houses of the town, the air of the basement stories, where the servants live, is impregnated with sewage gas. The fever is described to us by a Medical Practitioner of the district as undoubted typhoid—the characteristic rose spots being, in the cases he had seen, well marked. The purely local character of the outbreak is illustrated by the facts that nearly the entire parish of St. Mary, forming a part of Guildford, has been exempt, and that no cases have occurred at Godalming, four miles distant. The disease is said to be now rapidly declining.

The foolish law by which the question of the pregnancy of a condemned woman is directed to be decided by a jury of matrons, has been—we suppose necessarily—confirmed by the new Criminal Act, which orders that the juror, instead of being sworn, may make "his or her" solemn affirmation or declaration. It is only, we believe, in a case where proof of

pregnancy is required that women can act as jurors. The sooner the law is abolished, the better for the scientific reputation of the country.

The extortions of the eating-house keepers in the City have led to the formation of an association, under the auspices of Alderman Cotton, to provide clerks and other *employés* with a decent dinner for ninepence or a shilling, and with lunch for sixpence. Professional experience undoubtedly teaches that a fruitful source of dyspepsia in many a white-faced City clerk is the mess of warmed-up meat, greasy gravy, and stale discoloured vegetables, which forms his principal meal. We notice that the discussion of a dinner given by Lord Dufferin, and described by Sir James Y. Simpson as consisting of "seventy-four dishes, preceded by cold oysters and ending with vegetables in season," was the fitting climax to the proceedings of the Social Philosophers at Belfast. Certainly there is not a more social science than that of dining. We commend the whole subject of feeding in public to the grave consideration of the Association at its next meeting, as being more strictly within the limits of "scientific" observation than Lord Dufferin's proposals for the redistribution of the property of the Irish Church, or Mr. Goldwin Smith's opinions as to the propriety of abolishing religious tests in the elder Universities. Sir James Simpson, who presided in the Health Department, seems to have been a special object of interest to the ladies of Belfast, who were present in large numbers at his opening address. In his remarks on Hospital statistics, and on the influence of Hospital air and large Hospitals in heightening the mortality from disease, he referred to topics which are now occupying a large share of Professional attention, but which are too wide for discussion in a column of table-talk.

A case of fatal poisoning by tobacco is very rare, but one is said to have recently taken place at Stoke-upon-Trent. A tradesman, aged 29, addicted to tobacco chewing, being on Thursday evening, September 26, with some friends who were smoking, put nearly half an ounce of tobacco into his mouth at once. In a few minutes he became insensible and fell. He is said to have swallowed some of the tobacco, and he died on Sunday morning. The long interval of sixty hours between the poisonous dose and death suggests the probability that there might have been some concomitant cause for the fatal result.

The impudence of the Pascal-Newton forgeries is amazing. Professor Hirst has announced that one of the passages attributed to Newton, and to which his signature is appended, is, with the exception of an altered word or two, an exact copy of a French translation of a passage in a book published in 1717 by Dr. Samuel Clarke, who was rector of St. James's, Westminster. After this, surely M. Chasles, the mathematician and historian, will come forward and make an apology to the scientific and literary world for his part in the publication of so gross a deception.

An outbreak of cattle disease in Cheshire has been creating some general interest, and no little alarm in that dairy county. Professor Gamgee characterises it as a malignant catarrhal fever—an anthracoid affection which has been described, by a Continental writer, as "glanders in the ox." He believes that it is a disease of enzootic type, and that it never spreads far by contagion.

Trichinous disease has been recently seen in Berlin; seventy persons who had eaten pork bought from one butcher were taken ill, of whom two have died. Dr. Cobbold, in a paper published in the last number of the *Proceedings of the Linnean Society*, gives the assuring intelligence that English swine are almost entirely, if not absolutely, free from trichinæ; that not a single case of trichiniasis in the living human subject has been diagnosed in the United Kingdom; and that of the twenty or thirty cases discovered *post-mortem*, it is most probable that all contracted the disease by eating German sausage or other preparation of foreign meat.

The right of coroners to hold inquests on the bodies of persons dying on board foreign ships of war in British ports has been called in question by the captain of an American war steamer lying at Southampton, on board which a fatal accident lately occurred. The right is admitted on board her Majesty's ships on home stations, although we see that it has lately been questioned by Sir Leopold M'Clintock, the commodore at Jamaica.

THE VICTIM OF THE LONDON FENIANS.

The two disastrous events which have followed each other so closely, the murder of Brett and the shooting of McDonnell, have begun to open people's eyes to the true nature of Fenianism, and to show them how misplaced is clemency when bestowed on miscreants of the real Fenian pattern. As our readers are probably aware, on Saturday morning an unfortunate guardsman who had been playing at one of the music-halls was returning home with a comrade, and having, in a public house to which they had adjourned for refreshment, given vent to some unfavourable expressions as to the character of Fenians and Fenianism, was followed and ruthlessly shot down. To the kindness of Mr. Shoppee, Mr. Erichsen's House-Surgeon, we are indebted for most of the following particulars. When carried to University College, and received into Mr. Erichsen's wards, McDonnell was found to be partially collapsed, not, however, from loss of blood, for much had not escaped from the wound. On examination, it was found that the bullet had entered just below the fifth costal cartilage close to the right edge of the sternum, and that it had passed outwards and slightly upwards so as to escape just at the angle of the scapula. The bullet had completely penetrated the soft parts, but whether or not the bone of the scapula was injured, the cursory examination alone admissible prevented the Surgeons from determining. There has not been much bleeding from the wound, and from the lungs only a small quantity of bloody mucus has been daily expelled. There is evidently, however, a good deal of effusion into the lung itself, which is dull from its base to above the level of the wound; the left lung is perfectly healthy. Up to the evening of Wednesday, although he did not grow worse, the patient made no great progress, and he slept well at night. On Wednesday night he was more restless, and suffered a good deal from cold sweats; and on Thursday, when we visited him, he was worse than he had been. His pulse was then somewhat irregular, but at all times above 100. He is kept strictly quiet, and only allowed milk diet. Of course no one is allowed to talk to him, except when absolutely necessary. Altogether, his case does not look a promising one.

BABY FARMING.

This subject, during the present Parliamentary recess, has been noticed in several of our daily and weekly contemporaries. The *Pall-mall Gazette* in particular has, in a few scathing sentences, contrasted the highly moral tone of precept, and the demoralising tendency of practice, on the part of one of the daily papers, which has long been notorious as admitting into its columns the advertisements of persons whose trade is to pander to the vices of the age by providing accommodation for "ladies requiring temporary retirement." The list of advantages offered by the several establishments is sufficiently varied and copious to show that the competition must be tolerably keen, and we may fairly conclude that the trade is found to be remunerative. In one advertisement "strict privacy" is promised to the interesting patient; in another "baby linen is found;" in a third "every requisite" is offered; and in some that we have seen an intimation is given that the child will be either "nursed or adopted." The revelations at the recent inquest on the body of a child which died of want of nourishment at one of these establishments, kept by a Mrs. Jägger—by no means the first

inquest which has been held on some of the objects of her care—indicate sufficiently the nature of the trade, and how urgently legislative enactment is required to enforce due supervision of all lodging-houses and "baby farms." We should hardly, perhaps, have alluded to this topic—important though it be in its moral and social aspects—were it not that there are only too strong grounds for the suspicion that there are members of our Profession who can be tempted to lend themselves to the nefarious trade; for we cannot avoid remarking that almost all the advertisements alluded to contain some reference to Medical men. The subjoined extracts from the *Daily Telegraph* of the 1st instant speak for themselves—

"Furnished (for ladies) drawing-room floor, with piano; or other apartments. *Nurse recommended by Physicians.* Baby linen and the other requisites found. Mrs. B——, Camberwell-road."

"Furnished apartments during confinement or illness. *All Medical attendance provided.* Terms very moderate, and comfortable home. Situation healthy. Amount stipulated, or weekly payment. Address or apply to F., ——, Blackwall."

Of course a nurse "recommended by Physicians" must be mutually recommendatory, and have on her list a few names of Medical friends who do not object to undertake cases of a delicate natnre in which "strict privacy" will be one of the terms of the compact. And we may also suspect that in the instance in which "all Medical attendance is provided" the Practitioner employed has somewhat of a vested interest in the establishment. It pains us to be obliged to utter such suspicions. We feel assured, notwithstanding, that it is our duty to do so, and that the honour of our Profession demands from us, on the part of the overwhelming majority of our brethren, an indignant protest against Medical Practitionera being in any way connected with, or interested in, such a system. We would strongly urge upon the Government the great necessity of a searching inquiry into this subject, and of legislative means being adopted for the protection of the lives of infants whom the shame and guilt of their parents have consigned to the tender mercies of the "baby farmer." Such members of our Profession as may have in the battle of life weakly consented to take service in the ranks of shame, we most seriously advise and urge to withdraw at any cost. Those who through greed of gain may continue to prostitute their Profession to such vile purposes, are unlikely to listen to our word of warning, and will be utterly unworthy of sympathy should their practices ever bring them within the reach of the law.

SOLDIERS ON THE MARCH.

Apropos of the universal topic—the Abyssinian expedition—we may call attention to a paper which has just been laid before the French Academy by M. Guyon, on the subject of infantry marches. M. Gnyon has been studying the hygiene of the French troops in Algeria, and his experiences strike us as having a special importance at the present moment. He asks why it is that marches in warm climates are attended with so high a mortality among infantry soldiers. And in answering it he glances at the peculiar physical conditions under which the foot soldier is placed. First he calls attention to the fact, so ably dwelt on by Dr. Parkes, of Netley, that, in addition to the heat of the sun, the soldier has to bear all the temperature developed by his body in the march and in the effort to sustain a badly constructed pack and clothes entirely unadapted to the climate. He next points out that it is not dnring the march, but in the halt, that the most evil consequences ensue. In hot climates the ground is very mnch warmer than the air, and the stratum of air in immediate contiguity with it is also of a higher temperature than that at a higher level. Now it frequently happens during a halt that the soldier, having satisfied the wants of hunger, flings himself upon the heated ground and falls asleep. If, saya M. Guyon, he took the precaution of placing his pack under his head, much danger might be avoided. But this precaution is generally neglected. Hence arise cerebral and general nervous disturbances, which, in M. Guyon'a opinion, produce such fatal results. To obviate their exposure to high temperatures, it is snggested that the men should be marched at night, and kept at rest under canvas during the daytime. The recommendation is reasonable enough, and was carried out with the best consequences by General Marey-Monge in 1844. In the very hottest season this officer carried on an expedition into Algeria, which extended over eighty days, without a single loss from the effects of heat. The marches were conducted at night, and the troops were kept under canvas during the heat of the day. If such a plan as this be found feasible in the intended expedition against Theodore, we trust our military officers will at least give it a trial.

THE RECENT SCURVY CASES.

The six cases of scurvy now being treated on board the *Dreadnought* afford us another melancholy example of the inefficiency of the existing laws for the protection of merchant seamen. Of the six poor fellows who were taken into the Hospital ship on Thursday last (26th ult.), four were redneed to such a state of emaciation that they had to be hoisted on the Medical deck. They are now improving, but their condition is a sad one, and the story of their wrongs is brief and painful. When seen by us on Tuesday last, they appeared thoroughly worn out, fleshless, and sallow, their gums offensive, soft, and spongy, and their limbs covered with black and livid patches. One of them, whom we questioned in presence of the nurse, told us the following tale:—They were four montha out from Calcutta, having twice crossed the line. During all, or nearly all, this time the forecastle was kept in a most foully unclean state; it must indeed have been dirty when the sailors requested the mate to have it cleaned, lest it should "breed a plague." This request received no attention till the second time the ship crossed the line, and then something was done in the way of painting. But, as a rule, the condition of the forecastle mnst have been loathsome in the extreme, for, in the language of the sailors, it "stunk." The only provisions were salt beef, salt pork, and biscuit. With the last they had no fault to find. The meat, despite the frequent complaints of the crew, was never properly cooked, and the beef was bad and foul-smelling. On questioning the patient particnlarly on this point, he stated—and his statement was confirmed by one of his comrades—that they were compelled to eat beef which had been condemned on the voyage out as unfit for human food. Not a particle of vegetable was served out during the voyage, save a few preserved carrots to those men who were laid up with scurvy. The only drink was water, and this was the water of the Hooghly—not the most wholesome or refreshing beverage in the world. The diet of these poor fellows in the tropics was bad and half-cooked beef and pork, biscuit and Hooghly water. We have omitted to mention tea and coffee, both of which they had in addition. But how were these prepared? This is the recipe:—The coffee having been placed in a vessel, three quarts of boiling water were poured upon it, and after standing for a few moments "a conple of buckets of cold water" were added. The resulting compound was described to us very natnrally as having "a nasty brackish taste," and as being calculated "to give a man the flux." The farce of supplying limejnice was, it seems, gone through, a bottle containing about twenty-six ounces being given weekly to every five men; bnt it contained an ugly deposit, and before the ship had nearly completed her voyage it was, as our informant stated, "as black as your coat." These facts need little comment; they speak too strongly for themselves, and we trust that the owners of the *Riversdale* will afford us some explanation of them. Gross negligence and utter inhumanity have been shown by some one, and the question

now arises, who is the responsible person? It is simply monstrous to suppose that so glaring a case of cruelty as that to which the crew of the *Riversdale* testifies should be allowed to go unpunished. It is rumoured that a Board of Trade inquiry will be made into the matter. We trust it may be so. The whole affair should be thoroughly investigated, and the result made public. The provisions even of the last Merchant Seamen's Bill are inadequate, but until the public are brought to see the glaring evils which arise out of imperfect legislation, we fear that little will be achieved to supplement the Duke of Richmond's measure.

PORT WINE.

Most of our readers will have seen a leading article in the *Times* of Monday referring to a late report from Mr. Lytton, the Secretary of Legation at Lisbon, on the manufacture and properties of port wine. (We may observe, in passing, that Mr. Lytton's report is not easily procurable, but that a copious abstract of it is to be found in the *Daily News* of September 26.) They will notice that there is not one material fact bearing on the subject that was not laid before our readers by Dr. Druitt in his "Report on Cheap Wines," which appeared in the *Medical Times and Gazette* for 1865. That port wine is imperfectly fermented; that it receives large additions of spirit; that this spirit is often of the coarsest kind; that artificial colour and "body" are given by the addition of elderberries, are facts which only appear the more firmly established by the efforts made to deny them. Next week we hope to have space to return to this subject.

SEWER TRAPS.

We venture to say that there are very few houses in even the best districts of London in which drainage arrangements are so perfect that sewer-gases cannot find their way into the water cisterns. In most houses the discharge pipes of closets are trapped, in many they are not. But even in the best specimens we find that the overflow pipes of the cisterns pass down into the sewer, and thus under all circumstances allow the sewer gases to enter the house and occasionally to saturate the water. This might easily be avoided by giving an ∞ bend to the exit pipe, or by trapping it. The subject is of more importance than is supposed, for it is unquestionable that much of our typhoid fever is originated by the imperfect sanitary arrangements now adopted in dwelling-houses. We bring the matter under the notice of our readers because attention has recently been directed to it in the course of the Croydon sewage controversy. The suggestion of Dr. Alfred Carpenter seems to us a good one. In a letter to the *Standard* Dr. Carpenter says that every waste pipe, whether coming from a cistern, bath, housemaid's closet, or sink, should never communicate directly with the sewer; that no dead ends should be allowed to exist on any sewers; that the rain-water pipes should not be trusted as ventilators; but that at every termination of a sewer, and at frequent intervals, a proper charcoal ventilator should be inserted, such as is now generally used by the Croydon local board, and is an adaptation of Dr. Letheby's plan.

CHOLERA IN INDIA.

By latest advices, dated 17th ult., we are informed that cholera still hovers over many of the military stations of Bengal, including two hill stations—namely, Murree in the Peshawur, and Subathoo in the Sirhind division. Murree is the convalescent depôt for troops serving in the Peshawur division. It stands at an elevation of about 7500 feet above the sea level. This is the second time since our occupation that it has been visited by cholera, there having been a very serious epidemic there in July and August, 1858, by which, in an average strength of 230 Europeans, during the two months 32 cases and 19 deaths occurred. It is curious that one of the Hindustani names for cholera should be "Murree." On the present occasion, between June 29 and July 28, there have occurred 9 cases and 6 deaths among all classes. Two of the fatal cases were those of officers; one of them was Assistant-Sargeon W. N. Pell, of the 3rd battalion of the Rifle Brigade, and the other Captain A. Walker, of the 38th Regiment. We understand that the former gentleman was professionally educated at King's College, where he attained considerable distinction, and was considered to be a Medical officer of high promise. At Subathoo two deaths occurred in the 90th Regiment. Meean Meer retains its evil character as one of the foci of cholera. In the artillery at this station there were six admissions and three deaths between August 3 and 13, and in the 106th Regiment, which had been sent out into camp on account of the prevalence of the disease, there have been from cholera and choleraic diarrhœa fifty-seven admissions and thirty-three deaths—including that of one officer—between May 27 and August 13. We have ascertained that there have occurred during the present year among the European force in Bengal, of all ranks, 572 cases and 338 deaths from cholera and choleraic diarrhœa, and of officers eleven cases and nine deaths.

FROM ABROAD.—MEDICINE IN THE NINETEENTH CENTURY—THE PARIS MEDICAL FACULTY—DEATH OF DR. BOULEY.

The Paris Academy of Medicine, like the Academy of Sciences, is in the unfortunate position of never enjoying a holiday, its weekly meetings being continued uninterruptedly throughout the year, notwithstanding the great diminution in the attendance and in the number of communications which takes place in the autumn. Most likely the Anglican practice of suspending all scientific meetings excepting those of a peripatetic character during the summer will soon be followed, as the desire for utilising that season for country visits and excursions is much on the increase in France. In fact, the Academy can hardly "make a house," and the communications laid before it are of the sparest—the discussions, too, being spun out to a wearisome length by the few speakers, who have now unlimited length of time given them. At these dull seasons, however, the Secretary, M. Dubois, generally comes forward with some interesting paper or another to fill up the vacuum and redeem the meetings from utter listlessness. At one time we have from his pen the true history of the guillotine, and this week he commences a series of interesting papers "On the Degree of Certainty in the Medicine of the Nineteenth Century." A similar question had been discussed seventy years ago in relation to the Medicine of the eighteenth century, by a celebrated thinker, Cabanis, who eloquently replied to the detractors of Medicine of his own epoch. Medicine, indeed, at all periods has had its sceptics and detractors, but M. Dubois cannot agree with the dictum of an eminent critic—that it is especially in the Medical body itself that such detractors have been found; and that Medicine has always obeyed two opposite tendencies, *dogmatism* and *scepticism*, the one leading to the hazards of practice and the other to inaction. This is not an exact statement, for Medicine has had few sceptics in its ranks, M. Peisse having, in fact, confounded *empiricism* with scepticism, although these are very different, for empiricism is still a creed, while scepticism is death to science and art. The other assertion of M. Peisse is also erroneous—viz., that the chief detractors of Medicine have been found within its own camp. Certainly, the disputes and differences prevailing within the Medical body have done much mischief to their art, but systematic detractors are not to be found within its ranks, or even among men of science properly so called. They have been confined to mere literary men, and may be seen in the good-natured railleries of Montaigne and Boileau or the acrimonious ravings of Rousseau; but among even this class Medicine had an able defender in that personification of common sense, Voltaire,

who, while admiring the satire levelled by Molière against the charlatans within the ranks of the Profession, observes that it remains no less true that a good Physician may save one's life. Indeed, there can scarcely be a higher eulogium passed on Medicine than where he declares that men engaged in restoring health to other men, actuated by the principles of humanity and doing good, are raised far above those called the great of the land, and approach somewhat the Divinity, for to preserve and repair is almost to create. Voltaire, however, was well aware how limited were the resources of our art at that period, practice, founded on the humoral pathology, consisting in serious disease in little else than purging and bleeding.

About the period when Cabanis was engaged in estimating the amount of certainty in Medicine, Pinel was declaring that although a science of Medicine might exist as a branch of the natural history, the art of healing, whatever it might one day be, at present had no existence. For Pitcairn's problem, "A disease being given, discover the remedy," which he regarded as presumptuous, he substituted, "A disease being given, determine its true character and the position it should occupy in a nosological table." Pinel's object was to render Medicine a merely descriptive science, which of course could not be placed in doubt otherwise than by inexactitude of description. The art of healing, thus discarded by those with whom teaching rested, was naturally in a deplorable condition; but Bichat, although quite alive to its imperfections and the insufficiency of therapeutical procedures, neither proposed to abandon nor to delay its study, fully realising the fact that to reduce Medicine to simple observations and sterile descriptions was to lead it, so to say, to immolate itself. He demanded its reform, as being in its present condition repugnant or even repulsive to a man of common sense. This was the period at which Cabanis undertook to estimate the degree of certainty attaching to Medicine, not occupying himself, however, with the ideas of Pinel on the classification of diseases, but with the art of healing. To what point has Medicine proved useful to mankind? How he treated the subject, M. Dubois will consider in his next paper.

Professor Nélaton has resigned his Clinical Chair at the Paris Medical Faculty. It is currently reported that he will soon be raised to the dignity of a Senator. According to the French system of permutations, Professor Jarjavay, who at present lectures on Anatomy, will succeed Professor Nélaton in the Chair of Clinical Surgery. The vacant seat at the Faculty will, it is said, be filled by Dr. Sappey, the well-known anatomist.

One of the most amiable and learned Physicians of the Paris Hospitals has just departed this life. Dr. Bouley, Physician to the Hospital Necker, was a man whose intellectual powers can only be appreciated by those who have intimately known him—in fact, although his capacious mind was amply stored with all the riches of ancient and modern learning, he never wrote a single line; but the exquisite elegance of his conversation, the variety and extent of his knowledge, and, above all, the soundness of his judgment, entitled him, in the opinion of all who had met him, to a most eminent rank among the votaries of science. He died at the age of 55.

The Negroes in Mexico.—In an interesting memoir on the life and services to science of that eminent statistician and anthropologist, Dr. Boudin, read by M. Perier at the Société d'Anthropologie, he states that the 450 negroes placed at the disposal of France by the Viceroy of Egypt, for service in Mexico, displayed remarkable powers of acclimatisation, and made a very pleasant campaign compared with the other troops. They constantly inhabited Vera Cruz and its vicinity, so fatal to Europeans; and during nearly four years (from July, 1863) they remained entirely refractory to yellow fever; and they bore up in a most marvellous manner against the fatigues of an excessive service, to which, under the local conditions, Mexicans, Turcos, or French, would have certainly succumbed. These men, for the most part, were from Darfur or Kordofan, and rigid Mussulmans. They were well disciplined, carefully attended, properly fed, and well paid.—*Recueil de Méd. Mil.*, September.

REVIEWS.

Memorials of James Henderson, M.D., Fellow of the Royal College of Surgeons, Edinburgh; Vice-President of the North China Branch of the Royal Asiatic Society; Medical Missionary to China. London. 1867.

In the small and unobtrusive volume whose title we have just recorded we have a very remarkable history of an essentially self-made man. James Henderson, the subject of this memoir, was born in 1829 in a little village on a bleak moor in the north of Scotland. When scarcely 3 years old he lost his father, "an honest and industrious labouring man," and his mother then supported herself and her family (consisting of two girls and himself) by doing such work about the neighbouring farms as she could find. Till the age of 14, when he lost his mother, he lived the life of an ordinary peasant boy of the lowest class. We then find him engaged by a small farmer for six months, at a wage of twenty-five shillings. But he was overworked and almost starved, and, before his term of office had expired, we find him engaged to another farmer for thirty-five shillings for half a year. Here he was tolerably comfortable, and remained till he was 16 years of age, when the first marked epoch of his life occurred. The country Surgeon one day met him in the feeing market and asked him what work he could do. The boy boldly replied—"anything," and, as his subsequent career shows, his answer was not very far from the truth. In this situation, where he remained for eighteen months, he "learnt to write and spell a little, and do simple sums;" but, wishing to see more of the world, he answered an advertisement for "a young man as servant under a butler." He thus, at the age of 18, entered the service of Mr. Grant Duff, whose butler seems to have been a most remarkable man. "He was a thorough English scholar, an excellent arithmetician, could speak and read German well, and knew Latin and French." He seems, moreover, to have been a kind-hearted, thoroughly conscientious man. He soon found out that the subject of our memoir required instruction in almost everything, and gladly gave him all the help in his power. Moreover, his life and example led young Henderson to think seriously on religious subjects, and we may fairly say that to this excellent man, James England, we are mainly indebted for one of the most valuable Medical missionaries ever sent from these shores. After remaining for four years in this situation, he seems to have resolved, if possible, to enter the ministry; but the Free Church, to which he inclined, requires four years' literary study at a university, to be followed by a four years' theological course. "This," as he observes in the autobiographical portion of his memoir, "was rather appalling to one who was upwards of twenty years of age, who had never been at school, who had never learnt to study, and who had, moreover, not five pounds in the world!" Fortunately, however, there are some men who cannot be appalled at anything. After studying Latin, Greek, and mathematics for five months under a King's College M.A. in the little town of Macduff, where his small room cost him two shillings a week, and his weekly bill for food (two meals a day) seldom exceeded half-a-crown, he determined to go to Edinburgh, where he hoped to find some situation in which he should have leisure to prosecute his studies and at the same time be gaining something. He declined three openings, as not affording sufficient time for study. "At last," he says, "I thought I had found the right home in the family of Dr. B——. However, I was mistaken, for, though he was very kind, I could command no time for myself, and I left at the end of a fortnight. This Physician's son afterwards became Physician to the Royal Infirmary, and one day (two or three years afterwards) when I entered his ward with my stethoscope in my hand and proceeded to take my turn in the examination of a patient, he looked at me very hard and then shook me cordially by the hand, saying he was very glad to see me. From that time we were excellent friends, and he often flattered me by asking my opinion in any doubtful case." One lady, at whose table he sat as a guest three years afterwards, and who became one of his most valued friends, declined his services because she feared his principles were not sufficiently fixed for the responsibilities he proposed to undertake. After six weeks' search he found a suitable and congenial situation in the household of a Mrs. Ross. During the two years that he remained with her he had abundant time for the study of classics and mathematics, and at the expiration of that time he "entered college, took comfortable lodgings, and began to live like other people." At this period Henderson's personal

narrative ends. The church being closed against him by its prolonged curriculum, he resolved to enter upon the study of Medicine, and in November, 1855, he began attendance on the classes at Surgeons' Hall, Edinburgh. We shall confine our remarks on his student-life to a notice of two incidents, the first of which is probably unparalleled in the annals of Medicine. His kind friend and mistress so highly appreciated his character and admired his perseverance that she wished him to remain in her house while he attended his Medical classes. We are almost glad to find that in consequence of his catching small-pox—a disease which Mrs. Ross apparently held in great awe—he was, by mutual consent, transferred to lodgings, and that he was not placed in the anomalous position of being at once a domestic servant and a Medical student. The mere suggestion of the proposal is, however, highly creditable to both parties. The other incident to which we referred relates to how he became a Medical missionary. This he relates in a letter written in 1861, in which he says:—"When I was just half through my curriculum of Medical study, I went on the evening of December 18 to a meeting of the Edinburgh Medical Missionary Society, and hearing many interesting remarks on the value and importance of Medical missions, before twenty-four hours I had fully made up my mind to be a Medical missionary." By the advice of Professor Miller and other friends, he offered his services to the society, and, after due inquiry, they were unanimously accepted. As one of the students of this most valuable society, the remainder of the expense of his Medical education was defrayed from its funds. Up to this point of his career his life had been one continued struggle. He was now twenty-eight years of age, and though the remaining seven years of his life were full of incident, they present none of the striking peculiarities of his earlier history. In 1858 he passed as Surgeon, and acquitted himself most creditably in his examination. Desirous of also possessing the degree of M.D., he took pupils to enable him to raise the necessary fees, and in May, 1859, after a five days' examination, he obtained the desired honour from the University of St. Andrews. Three months previously he had received notice that he was engaged by the London Missionary Society as one of their Medical agents in China, and it was arranged that he should sail after six months' study of theology. After a somewhat tedious voyage, he landed at Shanghai on March 23, 1860. Here, with the exception of one visit to England, he laboured hard in Medical and missionary work during the five remaining years of his life, and he had the satisfaction of seeing these labours duly appreciated by the native population. Much of his Medical work in China is well deserving of record.(a) but it is with the view of directing the attention of our readers (and especially of our younger readers) to the early part of his life that we have written this notice. In the words of his chief theological teacher, "he determined, by God's grace, that he would be a *good* man, and then that he would be a *useful* man, and, in order to this last, that he would be an *educated* man."

FOREIGN CORRESPONDENCE.

FRANCE.

THE PARIS EXHIBITION.

It has at last been settled, in spite of much opposition, that the Paris Exhibition shall not be closed before October 31. One month, therefore, is still left to those who have not yet visited the monster show, to behold it in its full glory; for many regions which had long remained empty are now in full array. The Japanese section, for instance (one of the most interesting parts of the whole Exhibition, and vastly superior to the Chinese department), has only been ready since August; and, on the other hand, catalogues of many highly important divisions, of which the public was at first deprived, have now been printed, and enable the visitor to dive into mysteries of which he could not be expected without a guide to have the slightest comprehension. Such, for instance, is the case with the innermost circle, which contains the history of labour. From the rude stone tools of antediluvian tribes to the highly finished specimens of art which the sixteenth and seventeenth centuries have bequeathed to succeeding generations—from Vercingetorix to Francis I. and Louis XIV.—all the ages of human industry are here represented; and great would our veneration be for the archæologist who, without a printed guide, could succeed in deciphering all the puzzles which this splendid collection offers to an ordinary mortal.

We cannot allow the Exhibition to close without giving a short sketch of some interesting departments which have not been mentioned in any of our previous letters.

Anatomy holds a distinguished rank among those parts of the Exhibition which specially interest the Medical observer.

Professor Brunetti's preparations, which have gained him a first-class prize, are not particularly agreeable to the naked eye. Being deprived of all natural colour, they exhibit a uniform grey tint, which strikes unpleasantly at first. Their elasticity, lightness, and solidity make them, however, highly valuable from a different point of view; but their chief merit lies in the perfect preservation of the histological structure of both sound and diseased tissues. All the vessels, all the ducts, all porous bodies are gaping wide instead of lying collapsed; and this peculiarity renders microscopical examination particularly easy and profitable. When the magnifying power exceeds sixty diameters, it becomes necessary to render the preparation transparent, which is readily achieved by placing them in glycerine. The architecture of tissues will certainly be investigated with comparative ease when Professor Brunetti's method is universally adopted.

Professor Hyrtl, of Vienna, has exhibited some most delicate dissections of the most intricate parts of the animal frame. Vascular organs (kidney, liver, lungs), after being admirably injected, and then submitted to the action of a corrosive liquid, present an intricate network of vessels, which gives at once a general view of their texture. It is hard to conceive how such fragile specimens of art can have been conveyed to a distance without breaking up into a thousand minute fragments. A very remarkable collection, illustrating the internal structure of the ear, is also due to this skilful anatomist, who has in addition sent us many fine specimens of comparative anatomy.

Professor Teichmann, of Cracow, has sent a remarkable osteological collection, in which the crania of various animals constitute the chief attraction. Skilful injections of vessels, especially lymphatics, by an entirely new system, are exhibited in the same case.

The anatomy of the ear seems to be a favourite subject with our German brethren. Drs. Politzer, of Vienna, and Rüdiger, of Munich, also exhibit an interesting series of preparations connected with the inner chamber of the auditory apparatus; but, in this respect, Professor Hyrtl decidedly takes the lead.

Embryology is represented by a vast number of wax models and other preparations, among which those of Dr. Ziegler, of Freiburg, deserve especial praise.

A new system for preserving anatomical preparations is due to two French Medical students, MM. Brissaud and Laskowski, Although unfit to be examined with the microscope, the parts embalmed in this manner retain for an indefinite period of time their natural appearance, colour, and flexibility.

Numerous models of elastic anatomy are exhibited by Dr. Angoux in the French section. These models consist of successive layers of cardboard representing the principal organs which lie in each region; muscles, arteries, and nerves are painted in each of these layers with tolerable accuracy, and when one layer is removed the underlying parts are exposed to view; these, in their turn, can be taken off, and so on, till at last the skeleton is left bare. These models are convenient for cabinet study; they may serve to refresh the student's memory when the time of his examinations approaches, and we would beg to recommend them particularly to lady Doctors, whose presence in the dissecting-room we cannot even think of without loathing.

The prototype of this ingenious system is a wooden model by Fontana, the celebrated Italian anatomist, which stands in the same division. It was bought for eighty thousand francs (£3200), by Napoleon I., in 1802. It must be confessed that the *Premier Consul* was a liberal patron of science, especially when the very rude execution of the model is taken into consideration.

Physical instruments of all kinds are plentifully stored in the *liberal* zone of the Exhibition. Microscopes, in particular, attract the attention of the Medical visitor. Those of Messrs. Hartnack and Nachet in the French department, Ross and Beck in the English section, have obtained the gold medal, which they fully deserved. It must, however, be confessed

(a) We may especially refer to his letter on "Medical Schools in China," published in his last Hospital Report; to his papers read before the North China Branch of the Royal Asiatic Society (of which he was Vice-President), especially those on "The Medicine and Medical Practice of the Chinese" and on "The Climate of China;" and to his "Report on Leprosy in the Shanghai Consular District."

that M. Hartnack ought to have been placed above all his competitors. He has succeeded in making lenses which give distinct images, with a magnifying power of three thousand diameters!

A great variety of electro-medical apparatus is exhibited by Messrs. Ruhmkorff and Gaiffe. It is now easy, for a very moderate price, to procure an instrument which gives an enormous amount of electric power under a very small compass. But the most remarkable of all the instruments constructed for this latter purpose is Mr. Julius Thomsen's polarisation battery, constructed by Mr. Rasmussen, of Copenhagen. This apparatus, which has not hitherto been employed for Medical purposes, is to be seen in the telegraphic office of the Exhibition.

Polarimeters, ophthalmoscopes, and acoustic instruments, many of them most ingeniously contrived, occupy a great part of the space allotted to physical instruments. But a complete description of these would probably send to sleep the most intrepid readers of the *Medical Times and Gazette*. Let those, therefore, who have a decidedly mathematical turn, come and judge for themselves, remembering the well-known axiom that

"Segnius irritant animos demissa per aurem,
Quam quæ sunt oculis subjecta fidelibus."

Last, but not least, of all the departments of the Exhibition, chemistry demands a short notice. Splendid preparations of quinine, and a fine collection of various samples of bark, have been sent by Messrs. Howard and Son; the alkaloids of opium are admirably prepared by Messrs. Smith and Co., of Edinburgh, and an immense variety of other chemical productions, French, English, and German, will amply repay a visit to this section.

In connexion with chemistry, we must not omit to notice the collection of articles of food exhibited by the South Kensington Museum, in which the quantities of water, starch, sugar, etc., contained in various substances are not merely indicated in figures, but actually exhibited under the form of so many bottles of water, so many pounds of starch, etc., etc. This is, surely, a fine instance of what the French call "speaking to the eyes."

We have pretty nearly exhausted the list of all that can interest the Medical visitor in the Exhibition. If, however, he should happen to be an amateur of natural history or anthropology, he will find it easy to gratify his taste on these points. We would particularly recommend to his attention the photographic series of portraits representing all the various types of mankind, which has been exhibited in the Park by the French Ethnographical Society.

MEDICAL NEWS.

Royal College of Physicians, Edinburgh.—The undermentioned gentleman has passed his Examination in the Science and Practice of Medicine, and received a Licence to Practise:—

John Crouch, F.R.C.S. Eng., M.S.A. Lond., Bayswater.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 26, 1867:—

John Terrell Williams, Tavistock, Devon; William Henry Wood, St. Mary's Hospital; William Henry Plaister, Banwell, near Weston-super-Mare.

The following gentlemen also on the same day passed their First Examination:—

Charles Turing Brookhouse, Guy's Hospital; William Derrickson Beard, St. Mary's Hospital; Herbert Norton, St. Mary's Hospital; Robert Atkinson, Leeds Infirmary.

At the Preliminary Examination held on September 27 and 28, 95 candidates presented themselves, of whom 37 were rejected, and the following 58 passed and received certificates of proficiency in general education, viz.:—

William Allnutt, J. C. Atkinson, Alfred R. A. Ayres, Alfred Baldock, John Barlow, Henry J. W. Barrow, F. E. Barrow, S. P. Bateman, Frederic George Blake (special certificate), George F. Blake, George Bosson, Fredk. Canton, Elier Chambers (special certificate), Charles E. Chevallier, Henry Edward Clark, Henry Cockerton, Charles Edward Collins, Adam S. Court, J. Selwyn Cowley, F. Culpeper, Francis H. A. Davis, Edward Domville, Thomas Duke, J. H. Edmonds, Sydney T. Fairland, F. R. Fendick, E. A. Firminger, R. H. Hutchings, George Fredk. Jackman, Alfred Jackson, Henry Jackson, Thomas William Jackson, John Josiah Jones, N. C. Maclean, William Appleton Meredith, George Morris, John Moss, Alfred Kingcome Newman, Richard Paramore, D. Fortescue Pearson, J. J. Pickles, H. K. Pilliner, Samuel Henry Robey, Joseph Bill Rose, Ebenezer Russell, George J. Seale, John Scully, Frederic Skaife, R. A. Skinner, James Ouston Smith, Chas. Farrenden Taylor, Joseph Ward, Walter George Watson, Thomas Brodribb Weston, James C. Whelan, Josiah Williams, W. Aldersey Williams, W. H. B. Williams.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cane, J. B., L.R.C.P. Edin., has been appointed one of the Resident Surgeons at the Birmingham Lying-in Hospital.

Case, Henry, M.R.C.S. Eng., has been appointed Junior House-Surgeon to the Middlesex Hospital, *vice* Mr. Flower.

Drysdale, C. R., M.D., has been appointed a Physician to the North London Consumption Hospital.

Elliott, George F., M.D. Dub. and Oxon. (com. causa), has been appointed Lecturer on Medicine in the Hull and East Riding Medical School.

Flower, Thos., M.R.C.S. and L.S.A., has been appointed Senior House-Surgeon to the Mid Essex Hospital, *vice* Mr. Vincent.

James, M. P., M.D., has been appointed a Physician to the North London Consumption Hospital.

Macnab, R., M.D., has been appointed Surgeon to the Suffolk General Hospital, Bury St. Edmunds.

Rice, Michael W., M.B., has been appointed Resident Obstetric Assistant to the Middlesex Hospital.

BIRTHS.

Brown.—On September 29, at Mylesdown House, Mill Hill, the wife of Baker Brown, F.R.C.S., of 136, Harley-street, of a daughter.

Dalzel.—On September 30, at 30, Clarendon-road, Notting-hill, the wife of W. F. B. Dalzel, M.D., Surgeon Bengal Army, of a son.

Dickinson.—On September 29, at 11, Chesterfield-street, Mayfair, the wife of W. H. Dickinson, M.D., of a daughter.

Drake.—On September 26, at Brixton-hill, the wife of C. H. Drake, M.R.C.S.E., of a son.

Liveing.—On September 22, the wife of R. Liveing, M.D., of 17, Granville-place, W., of a daughter.

Noad.—On September 26, at Wokingham, Berks, the wife of G. W. Noad, M.D., of a daughter.

O'Flaherty.—On September 20, at 12, Manchester-street, W., the wife of T. A. O'Flaherty, M.D., of Ardagh, Killarney, and late of 2, Baker-street, W., of a son.

Rose.—On September 13, at East London, Cape of Good Hope, the wife of H. J. Rose, Staff Assistant-Surgeon, of a daughter.

Sealy.—On July 17, at Nelson, New Zealand, the wife of W. B. Sealy, M.D., of a daughter.

Stark.—On September 26, at Barrow-in-Furness, the wife of P. W. Stark, M.D., of a son.

MARRIAGES.

Bury—Atcheler.—On September 24, at St. Pancras Church, G. Bury, F.R.C.S.E., of Whetstone, to Victoria, widow of the late J. Atcheler, Esq., of Finchley, and youngest daughter of J. Chancellor, Esq., of Staines. No cards.

Commins—Scott.—On September 25, at the British Legation, Brussels, H. Commins, M.R.C.S.E., of Braintree, Essex, to Jeanie, eldest daughter of J. B. Scott, Esq., J.P. and D.L., Clare.

Daly—Beverley.—On September 26, at St. Stephen's, Lewisham, F. H. Daly, M.D., of 101, Queen's-road, Dalston, to Jeannie, daughter of R. Beverley, Esq., Assistant-Solicitor of H.M.'s Customs. No cards.

Ogston—Hargrave.—On September 25, at St. Mary's, Stoke Newington, A. Ogston, M.D., of Aberdeen, to Mary Jane, youngest daughter of the late J. Hargrave, Esq., Chief Factor of the Hudson's Bay Company. No cards.

Rhodes—Mansell.—On October 1, at St. Jude's, Southsea, C. Rhodes, M.D., of Weymouth, to Florence, second daughter of C. Mansell, Esq., late Major 15th Hussars.

DEATHS.

Anderson, S., M.D., at New Brighton, New Zealand, on June 6, aged 35.

Butler, W., M.R.C.S., L.S.A., at 19, Chapel-street, Pentonville, on September 26, in his 42nd year.

Norton, W. A., M.D., M.R.C.S., L.S.A., of Martham, Norfolk, at the residence of his brother-in-law, W. E. Jones, Esq., The Warren, Busheyheath, on September 20, aged 34.

Pagan, S. A., M.D., F.R.C.S. Edin., at 8, Melville-street, Edinburgh, on September 23.

Thompson, P. W., M.R.C.S.E., on September 25, aged 45.

VACANCIES.

Asylum for Idiots, Earlswood.—Assistant Medical Officer.

St. George's and St. James's Dispensary.—Apothecary.

West London Hospital.—Junior Physician and Junior Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Alderbury Union.—Mr. Edward Young has resigned the Fourth District; area 18,077; population 3155; salary £50 per annum. Also the Workhouse; salary £40 per annum.

Bellingham Union.—Dr. James Rodger has resigned the Fourth District; area 9860; population 285; salary £6 per annum.

Southam Union.—Mr. David Rice has resigned the Harbury District; area 14,374; population 2593; salary £40 per annum.

APPOINTMENTS.

Wincanton Union.—Carey P. Coombs, M.B. Lond., M.R.C.S.E., L.S.A., to the Castle Cary District.

Wycombe Union.—Henry Willson, M.R.C.S.E., L.S.A., to the Wendover District.

ROYAL COLLEGE OF SURGEONS.—The Council of this Institution has just given notice that, on and after October 1, 1868, all candidates presenting themselves for the final examination for the Diploma of Fellow or Member of the College, as the case may be, will be required to pass an examination in Medicine at the College, or to produce a recognised degree, diploma, or licence in Medicine, before receiving the respective diplomas of the College. Notice has also been given that the next primary and pass examinations for the diploma of Member of the College will take place on November 2 and 9, and that for the Fellowship on November 18.

COLLEGIATE STATISTICS.—In continuation from last week of the analysis of the Calendar of the Royal College of Surgeons, the following will no doubt be read with some interest:—It appears that there are only ten nonagenarians amongst the 15,000 members—viz, four at 90, one 91, one 92, two 93, one 94, and one at 96 years of age. None of the Fellows appear to have reached this great age. With regard to the Collegiate and Jacksonian Prizes awarded by the Council to successful competitors, it appears that the former, which was established in 1822, and is a triennial prize of fifty guineas, has only been carried off six times, and on two occasions by Mr. Joseph Swan. The Jacksonian Prize of the value of twenty guineas, established in 1801, has been carried off on 62 occasions, although for several years no award was made, in consequence of some of the essays not possessing sufficient merit, or from there being no competitors. Mr. George Calvert obtained the prize three times consecutively, and the following gentlemen have carried off the prize twice—viz., Sir Rutherford Alcock, Edwards Crisp, John Hyslop, Henry Thompson, and Joseph Swan. The following are the subjects of the Collegial Triennial Prize for essays to be sent in on or before Christmas-day next—viz., "On the Anatomical Structure of those parts of the Eyeball which are contained within the Sclerotic and Cornea; with illustrations drawn from each of the five great divisions of the Vertebrata." There are two subjects for the Jacksonian Prize for the present year, the essays for which are also to be sent in by Christmas—viz., the "Injuries and Diseases of the Jaw, including also those of the antrum, with the treatment by operation or otherwise," and "On the various Deformities resulting from Severe Burns on the surface of the Body, the Structural Changes occasioned by these injuries, the best modes of Preventing Deformities, and the Treatment, operative or otherwise, adapted to correct them." With reference to a statement in a contemporary that the number of Fellows by election during the past year is not given in the Calendar, it is only due to the careful compilers to state that not only are the names and addresses of the seven members elected to the Fellowship during the year duly published at page 257, but the amount of fees received for this distinction is also given at page 299 as amounting to £105, including the fees paid by gentlemen not yet admitted. There are other inaccuracies in the attempted analysis not deserving of further notice. In a report on the library, it is stated that the entire collection now contains 31,647 volumes, consisting of 13,220 works and 34,689 tracts, pamphlets, and theses.

A UNIFORM WORKHOUSE DIETARY.—Dr. Markham has been trying to introduce a uniform scale of dietary into our workhouses, and has been experimenting on the paupers of St. George the Martyr, Southwark. The scale embraces three divisions—for the able-bodied, the infirm and sick, and an extra diet for those engaged in work. No. 1, for the able-bodied. Breakfast—men, five ounces of bread and a pint of oatmeal. Dinner—three days in the week, five ounces of meat and eight ounces of potatoes; on three other days four ounces of bread, a pint and a half of pea-soup two days, and on another Irish stew; on Saturday twelve ounces of suet pudding. Supper—five ounces of bread; four days a pint of oatmeal porridge, and three days a pint of mutton broth. Women the same, except that on three days they have two ounces less bread and half an ounce less meat. No. 2, for the sick and infirm. Breakfast—men, five ounces of bread, half an ounce of butter, and a pint of tea, with milk and sugar. Dinner—four days a week, four and a half ounces of meat and eight ounces of potatoes; two other days four ounces of bread, one day a pint and a half of pea-soup, and the other a pint and a half of Irish stew. Saturday a pound of rice pudding. Women, for breakfast on two days in the week an ounce less bread; and on four days half an ounce less meat; on Saturday for dinner fourteen ounces of suet pudding. Supper—men and women the same as for breakfast. No 3, extra labour diet, men and women the same. Breakfast—six ounces of bread, half an ounce of butter, and a pint of tea. Dinner five ounces of meat and half a pound of potatoes. Supper same as for breakfast.—*Pall Mall Gazette.*

CHOLERA AT ZURICH.—In the *Medical Times and Gazette* of September 21 we stated of the cholera at Zurich that in the fifth week of the epidemic there were 42 cases and 18 deaths, and in the sixth week there were 120 cases and 84 deaths. In the seventh week, ending September 14, there were 188 cases and 98 deaths; and in the eighth week, ending September 21, there were 268 new cases and 129 deaths. During the three days, September 22, 23, and 24, the disease showed a tendency to abate, the new cases amounting to 62, and the deaths to 32. From July 28 to September 24 there have been altogether 708 cases and 378 deaths. The care that those attacked by cholera receive at the Hospital is above praise. The several benefit societies have united to organise a system of nourishment, at once economic and strengthening, for the help of the poorer classes. New kitchens are established to distribute strengthening soups. At Aussenthil 700 rations of soup, bread, etc., have been distributed gratis every day. Every one does his utmost to aid those most in need of help. Speaking of the desertion of Zurich, the *Gazette de Thurgovie* says:—"If the town of Zurich has become less noisy, and if the traffic in the streets has much decreased, for their part the hotels are also remarkably deserted—more than has ever been the case since hotels have existed at Zurich. The railways and steamboats bring fewer visitors than in the middle of winter. Even the cooler weather of autumn has not increased the number of strangers: the season is slipping by without being noticed." According to a private letter, there is no business whatever being done there; some merchants are even shutting their shops, for fear of their customers. There is scarcely any communication by railway with Winterthour; the traveller avoids the stricken town, and takes another route. Thus the hotels are entirely empty; even the visitors' list of the Hotel Baur, published in the *Tagblatt*, shows but one traveller who passed the night there. At several small towns of the Canton Zurich, all personal communication with the town of Zurich is forbidden under a penalty of from fifteen to twenty francs. At Berne a special house has been prepared for cholera patients. Measures are taken to clean the sewers daily, and the owners of houses are ordered to have their cesspools emptied and disinfected every week. In case of neglect, this is to be done by order of the police at the expense of the owner. At Koppigen (Berne), there has been one case, and at Wurenlos (Argovie) two cases. At Taegerig and Aarau, in the same canton, there were two cases, and two at Bade. All these were followed by death, and were all imported from Zurich. The Government has postponed all fairs and the agricultural exhibition of Bade. At Lachen (Schwyz) there have been two cases, and at Schindellegi three cases. At Fully (Valais), from September 5 to the 15th, there were nine cases and six deaths. We are told that "the authorities behaved themselves in an exemplary manner." At Lucerne there was one case, and also one at Zug, imported from Zurich. The usual assembly of the troops of Valais, Ticino, Fribourg, and Lucerne, has been either dispensed with or broken up on the appearance of the disease. At Lausanne the clergy seem more ready to recommend nostrums for the cholera than those measures which would keep the disease at a distance. A clerical correspondent of the *Gazette de Lausanne* advises that the following pill be taken every half-hour in case of disorder in the stomach:—Sulphate of quinine two grammes; extract of catechu four grammes; opium twenty-five centigrammes, for fifty pills. The disease is decreasing all over Italy; at Palermo the quarantine has ceased; but the summer will have been very fatal to the population, the province of Bari alone having lost 10,000 inhabitants.

YELLOW FEVER appears to rage with great violence in the Southern States of America, and especially in New Orleans. In this city the deaths from yellow fever have reached the enormous total of 100 a day. Since August 1 no less than 42 officers of the regular army have perished, including General Griffin, who governed Texas under General Sheridan during the late war. Two of the military Surgeons are reported by the latest telegrams as dangerously ill.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN SEPTEMBER, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition. (a)	Oxidisable Organic Matter. (b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction .	17·80	1·15	0·56	13·0	4·0	0·001
West Middlesex .	17·47	1·50	0·52	12·5	4·0	0·003
Southwark & Vauxhall . . .	17·93	1·55	0·78	12·5	3·5	0·007
Chelsea . . .	19·33	1·50	0·93	13·5	3·5	0·003
Lambeth . . .	18·50	1·95	0·72	13·5	4·0	0 003
Other Companies.						
Kent . . .	27·00	1·55	0·24	19·0	7·0	0·000
New River . .	14·73	1·40	0·28	12·5	4·0	0·002
East London . .	17·91	1·60	0·48	12·5	4·0	0·003

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

A. B.—For preserved vegetables of a fine sort, apply to Messrs. Chaufourier, Sackville-street, W. Supplies may also be had from Crosse and Blackwell, Hogarth, and other dealers in preserved provisions. For emigration purposes apply to Messrs. Silver and Co., emigration agents, Cornhill, who supply all articles for outfits for voyages.

Expectant.—There is no authority at the Legacy Duty Office at Somerset House, or elsewhere, who will see to the payment of your legacy. If the legacy were large enough to be liable to duty, they would take care that the duty were paid; but their office is to protect the revenue, not you. You must protect yourself; and if there are residuary assets after all claims on the estate have been satisfied, you may claim your legacy (or your share of it if the assets be insufficient). You had better employ an attorney.

J. G. H.—"A Practical Treatise on the Office and Duties of Coroners, with Forms and Precedents," by John Jervis, Esq. (now Lord Chief-Justice of the Court of Common Pleas); second edition, by W. N. Welsby, Esq., Barrister-at-Law, and Recorder of Chester. (London: S. Sweet, W. Maxwell, and Stevens and Norton, Law Booksellers and Publishers. 1854.) Also, the works of Professors Taylor and Guy.

A Third-year's Man.—The registration commenced on Tuesday last. It will be necessary that you return to your Hospital duties before the 15th inst., on which day the registration closes.

Stale News.—The report of which an abstract is given in the current number of a contemporary was published in the *Medical Times and Gazette* some months since.

Dr. Jennings.—Our advertising columns will give you the desired information. The preliminary at the Hall took place last week. There will not be one at the College until December 17.

A Member.—The Museum and Library reopened on Tuesday last; for the former from 12 until 4 during the winter, for the latter from 11 until 5 throughout the year.

A Member of the Association.—The table is preparing for publication, and will duly appear in the *Medical Times and Gazette*. We shall be glad to insert the case. Mr. Beaumont, of Toronto, published an interesting paper on the subject.

L.R.C.P.—In the case of Dr. Leteh, who practised as an accoucheur, a rule had been obtained upon his application for the College of Physicians to show cause why a mandamus should not issue, directed to them, commanding them to admit John Leteh, Doctor of Physic, to be a member of the College. Mr. Yorke showed cause against the rule, and Sir Fletcher Norton argued in support of it. The case is fully reported, and a fair abstract appears in Willcock's "Laws relating to the Medical Profession."

REPLY OF DR. DOBELL TO THE SECOND CIRCULAR OF DRS. RICHARDSON, LEARED, AND POWELL.

To the Governors of the Royal Hospital for Diseases of the Chest.

81, Harley-street, September 20th, 1867.

Gentlemen,—I regret that I am again compelled to occupy your attention in consequence of the issue of a second circular by your late Medical officers, Drs. Richardson, Leared, and Powell.

After carefully reading that circular, I am obliged to state that it consists throughout of laboured attempt to pervert and evade the truth.

The insult aimed at the Council of clergymen and gentlemen who drew up the answer to the first circular I must leave for you to deal with as you think proper.

The statement with respect to Dr. Powell is a palpable evasion of the truth, and has been already settled by the Council.

The Minute of the Medical Council of July 3rd, 1864, is as follows:—

"A discussion occurred on the question of Dr. Powell's aspirations to become Physician or Assistant-Physician to the Infirmary, in which it was urged by Dr. Dobell that the law requiring the Candidates for the office of Physician to be Members of the Royal College of Physicians of London, ought to be kept inviolate, as most important to the position of the Hospital, both with the Profession and with the public; and that if the office of Assistant-Physician were ever created, it should be governed by the same law as a qualification as the office of full Physician. Dr. Dobell expressed his regret at being forced to oppose the advancement of Dr. Powell in this instance, and stated that if Dr. Powell had been a Member of the College of Physicians it would have given him pleasure to have recognised his claims as a candidate for the office of Physician. It was finally resolved—'That the Medical Council, finding that there are two days of attendance vacant at the Infirmary, are compelled to suggest that the Committee of Management for a Physician to succeed Dr. Althaus.'"

At the meeting of July 26th, 1867, Dr. Richardson and Dr. Powell, in a most offensive manner, refused to confirm this Minute, thus renewing the quarrel as to Dr. Powell's qualifications; and since that day they have not been friends with me.

Next, as to the "real causes of resignation." (See circular.)

No. 1 refers to an occurrence five years ago, and is untrue, as shown by the following Minute of Medical Council:—

"July 25th, 1862.—Meeting called *by desire of the Committee of Management*, to consider the expenses incurred for drugs at the Infirmary. The analysis of the expenses was submitted to the Council, and it was found that the excess of expense on behalf of Dr. Richardson was due to the use of large quantities of peroxide of hydrogen. Dr. Richardson regretted to find that the medicines used by him were so expensive, but considered them to be of such value that he could not conscientiously withhold them. He stated that he would reduce the quantity used to the lowest practicable amount—this statement to be submitted to the Committee of Management.

"Confirmed, March 13th, 1863,

"B. W. RICHARDSON."

The Council will be able to deny that I ever let the Hospital pay for "extravagant experiences."

With regard to Dr. Leared and the Turkish bath, the truth is shown by the following Minute of the Medical Council, May 17th, 1864:—

"Dr. Leared proposed that a Turkish bath should be erected at the Hospital for the purpose of experimenting with it in the treatment of consumption." "Dr. Dobell stated that if the Infirmary had been a General Hospital, he would at once have seconded the proposal to erect a Turkish bath, in order that the Physicians might try it in any cases they thought proper; but that as the Infirmary was a Special Hospital, the erection of a Turkish bath for the treatment of the patients would identify such treatment with a certain class of disease, and bring the Profession and the public would consider the staff of the Infirmary committed to the treatment of chest diseases by the Turkish bath. Therefore, supposing it to fail, the reputation of the Institution, and that of its staff, would be seriously endangered. He therefore should oppose the introduction of the bath, until it had been more extensively tested outside the walls of the Infirmary. He hoped Dr. Leared would prosecute his experiments on a wider scale, at some public bath, and report again. Dr. Althaus agreed in the main with these views; and Dr. Leared said he did not wish to push the matter, unless his colleagues were unanimous in its favour."

"Confirmed—J. ALTHAUS."

It is a fact that after this I materially assisted Dr. Leared in obtaining permission of the Council of Management for his experiments to be carried on at the expense of the Hospital at a Turkish bath in the neighbourhood, and that Dr. Leared availed himself of this permission to a very large extent, as shown by the payments made to the bath. But to this day he has not reported a single result of his experiments to the Medical or General Council.

No. 2 is almost too trivial to notice. The facts being that two good-looking pictures, framed and glazed, one of which was an ornamental almanack, were sent as a present by the Secretary of the National Union Life Office, who was a Governor of the Hospital; and the walls of the Physician's rooms were bare, one was hung in each room. The names of Dr. Sieveking, Sir Henry Thompson, and myself, and of the Directors of the Company, were certainly on the pictures, but in the most unobtrusively small print. I was astonished to hear one day, accidentally, that these pictures annoyed one of my colleagues, and I had them taken down immediately.

No. 3 is not truthfully stated. The facts are that Mr. Pattison, a maker of respirators, had for several years presented, every winter, a number of respirators to the Hospital, which had been distributed by the Physicians in the out patients' room, year after year. At last he asked to hang in the Hospital waiting-room a notice of the very low price at which they could be purchased. Being asked, as Honorary Secretary, if this might be done, and knowing that patients were continually inquiring where to get cheap respirators, I said "Yes." But soon after, hearing from the Dispenser that some objection had been made to the notice, I had it taken down directly.

No. 4 is quite untrue. It refers to an occurrence in 1863, fully explained at the time, and I had no idea it still rankled in Dr. Richardson's mind. It was an annual dinner, and, I being the senior Medical officer present, the Secretary gave my name to the Chairman and asked me to respond. When the toast came on, the toastmaster called upon me. I rose to respond, not having seen that Dr. Richardson in the meantime had arrived. Dr. Richardson rose too, and after a word of explanation to the chair, I sat down, and gave place to Dr. Richardson. It was a pure accident, which any gentleman ought to have been able to understand and forget.

No. 5. The last part of this clause has been already disposed of; the second part is not true; the rest is amusing. The Secretary to the Medical Council (not the Council of Management) is elected yearly by the Medical Council, and I have been kept in that post, against my own often expressed wishes to be released, ever since 1860, because no one else would do the work. April 10th, 1862, a minute appears, confirmed by Dr. Richardson:—"Dr. Dobell complained that no notice had been taken of his summonses to attend the Medical Council, and declined to act as Secretary, unless they should in future be responded to."

No. 6 is most gratuitously false. The words, "not practising midwifery or pharmacy," were introduced by the Secretary with the *written* consent of a majority of the Governors who had been present at the meeting referred to, and were confirmed by a subsequent General Court of Governors, at which I was not present. Whether this proceeding was strictly formal or not, the responsibility of it rests with the Council and Governors, not with me.

No. 7, called "the most serious matter of all," is untrue in every statement, and if any insult was offered on the occasion referred to it was from Dr. Powell to me. The succeeding paragraph, which represents that rather than run the chance of incurring my "censure," Drs. Richardson and Powell delayed an urgent operation which they confess "should have admitted of no obstacle and no delay," until they could get Dr. Davies's protection, would be unbelievable had they not stated it of themselves. If, however, they felt in such peril, Mr. Adams, the Consulting Surgeon, would have been, under the circumstances, their natural protector, not the Consulting Physician.

The "Diet Scale" question has already been settled in a previous correspondence, and if referred to at all it would have been simply fair to have quoted the *charge sheet* prescribed for the large majority of patients, instead of selecting the only expensive diet on my list, of which I have already explained that it is very rarely used, being especially arranged for a few peculiar cases.

The "*question of attendance*" and of the "Attendance Book" belongs to the Council, not to me. But I must express my regret that a charge should be brought against the late Mr. Smart, which can in no way affect either the Council or myself, seeing that it is stated that Mr. Smart acted "unofficially." I have heard of this with astonishment to-day for the first time, and if there ever were a particle of foundation for the charge, it is strange indeed that Dr. Richardson never complained of it either to the Council or to me during Mr. Smart's lifetime.

And now for the last paragraph but one of the circular (in which the first and concluding portions contradict each other) It is true that on July 26, 1867, twenty-eight days before the date of the first circular issued by Drs. Richardson, Leared, and Powell, at a meeting of the Medical Council full discussion occurred in consequence of Dr. Richardson and Dr. Powell refusing to confirm the Minutes of July 3, 1866, already quoted. But *it is not true* that on that or on any other occasion one word was uttered by any of my colleagues on the subject of my occupying the post of Honorary Secretary to the Hospital, which is stated, in the first circular of Drs. Richardson, Leared, and Powell, to be the sufficient cause of their resignations.

It is the fact, however, that in consequence of Dr Richardson having on that occasion refused to admit the truth of some of my statements, I urged upon him in writing to meet me at the Hospital in the presence of our colleague, Dr. Crucknell, and two members of Council, one to be chosen by each of us, and promised that in their presence I would prove, from written documents, that my statements were true and his were not. On his objecting to the constitution of this tribunal, I proposed that to meet his views, four arbitrators should be appointed instead of three, two by him and two by me; and it is the fact that this proposal remains for a fair and open investigation, at which any question or complaint might have been brought forward and settled, was evaded by the issue of the first circular signed by Drs. Richardson, Leared, and Powell, dated August 22—an act which I leave to the consideration of every lover of fair play.

I have only to add that the concluding paragraph of the circular refers to matters which happened long before my connexion with the Hospital. But it can be easily answered by the Council, if they think it worthy of their notice.

I am, Gentlemen,
Yours very faithfully,
HORACE DOBELL, M.D.

*** We have also received a printed circular signed by Drs. Richardson, Leared, and Powell, in answer to the above letter. The demands on our space prevent its publication. It must suffice to say that they reassert in very decided language the statements made in the letter we published last week. Here, as far as this journal is concerned, the discussion must stop. We have elsewhere expressed an opinion upon the Professional points at issue.

DR. BEATTY'S FORCEPS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to Dr. Barnett, and some others who have asked the same question, I beg to state that my forceps can be had of Messrs. Thompson and O'Neill, cutlers, No. 7, Henry-street, Dublin. They have the pattern, and are most careful to follow it in making the instrument. A letter by post to them will secure an immediate reply.

I am, &c.
THOS. E. BEATTY.

18, Merrion-square North, Dublin, October 1.

COMMUNICATIONS have been received from—Dr. RINGER; Dr. GRAILY HEWITT; Dr. MILLER; Dr. HUGHLINGS JACKSON; Mr. J. CHATTO; Dr. LIONEL BEALE; Dr. TIBBITS; Mr. HOLMES; Dr. COBBOLD; Dr. BROADBENT; Dr. DAY; Dr. ODLING; Dr. WILSON; Mr. BROAD; Dr. SIDDALL; Mr. HARTLEY; Mr. A. B. STEELE; Dr C. E. NELSON; J. G. H.; INQUIRER; Dr. DOWNIE; Mr. HARRY LEACH; Dr. EASTLAKE; Mr. PEMBERTON; Mr. DURHAM; Mr. GANT; Mr. TAIT; Dr. VINEN; C. A.; Dr. BEATTY; Mr. SOLLY; Dr. FAYRER; Mr. PLANT; Mr. CALLENDER.

BOOKS RECEIVED—Report of the Quekett Microscopical Club—Report of the City of Glasgow Fever Hospital—Langley's Via Medica—The Morningside Mirror, vol. 22—The Edinburgh Medical Journal, October—The Glasgow Medical Journal, No. 18—Medico-Chirurgical Review, No. 83—Popular Science Review, No. 25—Mac Cormac on Synthesis—Westminster Review, No. 64—Calendar of the Pharmaceutical Society—Corner's Sanitary Report.

NEWSPAPERS RECEIVED—Laboratory—Gazette Hebdomadaire—Surrey Times—Yorkshire and Lincolnshire Advertiser—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 28, 1867.

BIRTHS.

Births of Boys, 1122; Girls, 1014; Total, 2136.
Average of 10 corresponding weeks, 1857-66, 1858·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	626	568	1194
Average of the ten years 1857-66	590·2	567·3	1157·5
Average corrected to increased population..	..	..	1273
Deaths of people above 90	..	..	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·074 in.
Mean temperature	53·0
Highest point of thermometer	67·6
Lowest point of thermometer	35·5
Mean dew-point temperature	48·5
General direction of wind	W.S.W.& S.W.
Whole amount of rain in the week	0·13

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 28, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Sept. 28	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Sept. 28	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2136	1421	1194	67·6	35·5	53·0	0·13	13
Bristol (City) .	165572	35·3	117	74	151	63·7	39·1	52·3	0·10	10
Birmingham (Boro')	343948	43·9	250	167	174	66·7	39·7	54·3	0·15	15
Liverpool (Borough)	492439	96·4	394	285	290	61·6	46·8	55·1	0·15	15
Manchester (City) .	362823	89·9	262	205	†261	62·0	39·0	51·7	0·33	33
Salford (Borough) .	115013	22·2	88	58	65	62·3	38·0	52·1	0·39	39
Sheffield (Borough).	225199	9·9	197	119	112	61·4	40·0	51·8	0·13	13
Leeds (Borough) .	232428	10·8	283	118	142	61·5	38·0	53·2	0·14	14
Hull (Borough) .	100740	30·0	88	49	60	64·0	36·0	52·9	0·02	2
Newcastl-on-Tyne, do.	124960	23·4	139	66	82	..	..	..	..	..
Edinburgh (City) .	176081	39·8	123	85	77	59·7	47·0	53·1	0·10	10
Glasgow (City) .	440979	87·1	345	257	210	57·7	41·2	52·1	0·47	47
Dublin (City and some suburbs) .	319210	32·8	185	†157	135	65·4	41·4	55·0	0·07	7
Total of 13 large Towns. . .	6187764	34·8	4607	3061	2833 Week ending Sept. 21.	67·6 Week ending Sept. 21.	35·5	53·1	0·18	18
Vienna (City) .	(1863) 560000	..	..	..	242	..	..	61·0§	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·074 in. The reading was above 30 in. on every day after Monday. The barometrical reading increased from 29·75 in. on Sonday, September 22, to 30·33 in. on Wednesday, September 25.

The general direction of the wind was W.S.W. and S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 54·8°.

APPOINTMENTS FOR THE WEEK.

October 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

7. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

8. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

9. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

HUNTERIAN SOCIETY (Council, 7½ p.m.), 8 p.m. Dr. H G. Sutton, "Some Remarks on Tricuspid, Regurgitant, and Mitral Presystolic Bruits, with Cases."

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

11. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

WHEATEN BISCUITS,

Sweet and Plain,

MANUFACTURED BY

HUNTLEY & PALMERS, READING.

These Biscuits are highly recommended for their Hygienic qualities. They are made of coarsely ground Wheat, and from the receipt of a gentleman whose experience has proved their advantageous use. (See *Medical Times and Gazette*, August 24, 1867.)

They can be obtained of the leading Italian Warehousemen and Grocers in London and throughout the Kingdom. Sold in suitable size Tins for family use.

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and Chalybeate Water, of very agreeable and refreshing taste, owing to its large proportion of carbonic acid; a valuable Dietetic Beverage in many morbid tendencies through its antacid, diuretic, and tonic qualities.

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See Pharmaceutical Journal of May 1, 1856.

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,, Battley and Watts.	,, Samuel Foulger and Sons.	,, Preston and Sons.
,, Burgoyne and Burbidges.	,, Hearon, McCulloch, and Squire.	,, Southall, Son, and Dymond.
,, Cox, Gould, and Co.	,, Herrings and Co.	,, Wright, W. V., and Co.
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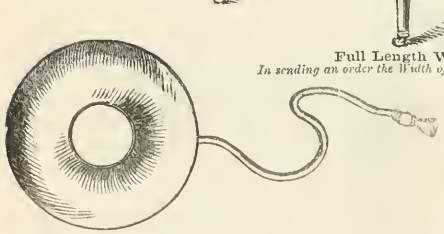

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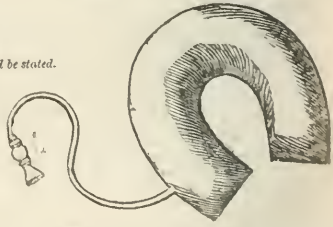

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital: Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture IV.—Part I.

CAUSES OF ARREST IN FIRST LABOURS—DISTURBED OR DIVERTED NERVE-FORCE—THE UTERINE AND PERINÆAL VALVES—THE POUNDING UP OF LIQUOR AMNII—THE FORCEPS TO DELIVER THE AFTER-COMING HEAD.

A very large proportion of cases that call for the forceps are *first labours*. It is therefore well to take a survey of the conditions which lead to this necessity. Disproportion as a cause of arrest we will put aside for the present. In the great majority of first labours the difficulty does not arise from disproportion. The frequency of an easy second labour proves this. The difficulty, then, lies in the soft parts of the parturient canal. And this may be either from want of contractile energy of the uterus or from excessive resistance of the os uteri, vagina, or vulva. I will endeavour to explain the nature of these cases. First, the suspension of uterine and other muscular force. This may be the result of exhaustion from fatigue, or of the discharge of the *vis nervosa* in other directions—metastatic labour, as Dr. Power calls it. Emotion, fear, the shrinking before pain, will frequently cause such a derivation of nerve-force that all labour is suspended. It is in such cases that chloroform finds one of its happiest offices. By removing the sense of pain and of fear, the emotional disturbance is eliminated, the nerve-force responds to the natural call, and labour is frequently resumed and carried out to a successful termination. It is not a figure of speech to say that here chloroform acts like a charm. It may even save the necessity of resorting to instruments.

But not seldom, combined with more or less emotional disturbance, the expelling force gives way before a real mechanical obstacle. It is this:—In primiparæ the cervix dilates slowly. The vertex partly enters the pelvis, capped by the cervix. The anterior portion of the cervix especially is carried down before the head, much below the brim. It even gets jammed between the head and the symphysis, and becomes perhaps more unyielding from œdema. Now this anterior segment of the uterus forms a valve or plane which guides the head backwards into the sacral hollow in the direction of the axis of the brim. So far it fulfils a useful function, but, having done this, it ought to retire. In pluriparæ it commonly does so, and then the head encounters the second valve formed by the perinæum, which is exactly opposed to the first or uterine valve. The function of this is to guide the head forwards under the pubic arch in the direction of the outlet. Now, it frequently happens in primiparæ that these valves maintain their resistance too long. The uterine valve may still cap the head when it is propelled to the very floor of the pelvis. In this case the head is prevented from receiving the full impact from the inclined planes of the ischia; it is impeded in its half-quarter axial turn, occiput forwards, and also in its movement of extension. Hence a double difficulty: there is the opposing valve, there is malposition. Clearly the valve must be got out of the way. How to do it? Sometimes patience will do it; but as patience on the part of the Physician may involve agony and danger to the woman, this should not be overstrained. Sometimes one or two fingers may be insinuated between the valve and the head in the intervals of pains, and then the valve may be held back so that the equator of the head may pass it. But you must be careful lest by over-meddling you cause more swelling and rigidity. You may pass up the lever or one blade of the forceps, and bearing upon the occiput, just as you use a shoehorn, the valve, like the heel of the shoe, is held back whilst the head descends upon the inclined plane of the instrument. And here you often get another beneficial result. The head-globe has been lying closely fitting to the ring of the cervix uteri like a ball-valve, ponding up the liquor amnii behind, and impeding the full action of the uterus by over-distending it. The lever or forceps opens a channel for the escape of the pent-up fluid. The uterus then acts immediately, and the labour proceeds. I have often used the forceps successfully for no other purpose than this.

Fig. 21.

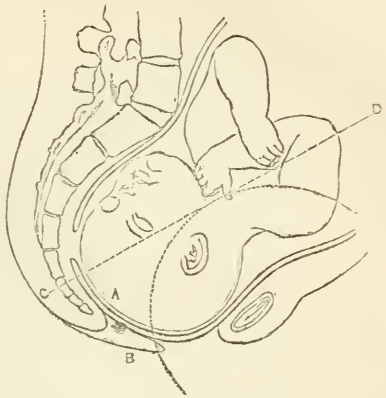

Fig. 21.—Showing the head arrested in the pelvis by the anterior or uterine valve A, which is carried down into contact with the posterior or perinæal valve B. The uterine valve A helps to guide the head into the pelvis, in the axis of the inlet C D.

Well, we have now disposed of the uterine valve. The perinæal valve and the vulva oppose another barrier, all the more troublesome because it has to be encountered by diminished forces. Arrest on the floor of the pelvis, nothing but this valve obstructing, is very common. The lever applied alternately over the occiput and face, or over the sides of the head, answers perfectly in this case. But many will prefer the forceps.

Fig. 22.

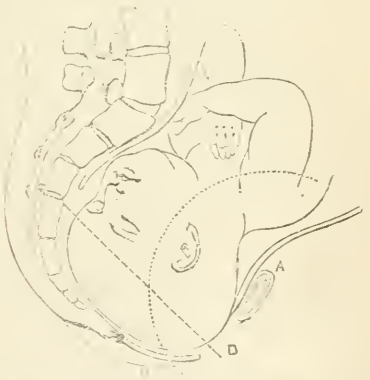

Fig. 22 shows the head arrested at the outlet by the posterior or perinæal valve B; the anterior or uterine valve A has slipped up above the equator of the head. The posterior valve guides the head out of the pelvis in the axis of the outlet C D.

The delay at the vulva is often further increased by intense emotional and sensational nervous disturbance. The uterus seems instinctively to hesitate to contract, lest, by forcing the head upon the acutely sensitive structures of the vulva, it cause intolerable pain. The consequence of this protracted shrinking before pain is twofold:—There is, first, exhaustion of nerve-force; there is, secondly, a condition which I can best describe as a kind of shock, producing prostration, if not collapse, which supervenes whenever an urgent function is suspended, remains unfulfilled.

Another cause of delay may of course reside in the mecha-

nical condition of the resisting structures; rigidity of the cervix uteri, of the perinæum or vulva, may be added to other unfavourable conditions. Rigidity may be due to thickening, œdema, hypertrophy of the tissues, or there may be rigidity without discoverable alteration of texture; and there are the more serious cases of partial or complete occlusion from cicatricial tissue, the result of previous injury or disease. Obstruction from these causes demands special treatment, which will be discussed hereafter.

Most authors describe the application of the *forceps to the after-coming head*—that is, when the head is delayed after the birth of the trunk in breech, footling, or turning labours. The position of the child with its head delayed at the brim, probably compressing the cord, is indeed perilous. Prompt delivery alone can rescue it from asphyxia. How shall we best reconcile the two conditions of promptitude and the minimum of force? It is a point of extreme interest to know what is the greatest time a child can endure being cut off from placental and aërial respiration and yet recover. For within that time the head must generally be extricated in order to save life. That time is certainly very brief. Here it may truly be said that "horæ momento cita mors venit, aut victoria læta." The data are necessarily wanting in precision. Hugh Carmichael(a) in two cases removed the fœtus from the uterus within fifteen minutes of the death of the mother. In both cases the fœtus was quite dead, although, on the mother's evidence, it was living just before her dissolution. A similar case has occurred to me. Dr. Ireland was called to a woman who had died suddenly from a blow received from her husband. The Cæsarian section was performed, and a live child was extracted. The interval here was estimated at eight or ten minutes. The following case occurred at St. Thomas's:(b) —A woman in her ninth month was run over in St. Thomas-street at 7.35, and carried to the Hospital. She died at 7.55. Mr. Green opened the abdomen at 8.8, and the child was withdrawn by Dr. Blundell asphyxiated. Its lungs were inflated, and it survived thirty four hours.(c) Here, then, we have an instance of partial recovery at the end of thirteen minutes from the mother's death. Cases of extraction of live children within ten minutes are not very rare. But perhaps examples of this kind are not exactly in point. They are not quite analogous to the case of compression of the cord during labour. Numerous observations lead me to conclude that the child will be asphyxiated beyond recovery if aërial respiration do not begin within three, or at most five, minutes after the stoppage of the placental respiration. I think it must be accepted as a general law that if the head compress the cord, the child must be extracted within three minutes. Even if this be done, there will commonly be considerable asphyxia and cerebral congestion, and restorative means will be required. Now the practical question arises—What is the readiest way of delivering the after-coming head? We can extract by the hands or by the forceps. Which is to be preferred? In many cases undoubtedly the hands are the best instrument. Where the cervix is fully expanded and the brim of the pelvis is roomy, well-directed manipulation will deliver in a few seconds. And again, if there be any marked contraction of the conjugate diameter, the forceps will probably fail, whereas the hands may extricate the head very quickly. But still some cases may occur in which the forceps will be useful. How to apply it? In the first place, draw down the cord gently, so as to take off any dragging upon the umbilicus, and lay the part which traverses the brim in that side in which the face is found; there is most room for it there. The head is engaged with its long axis more or less nearly in the transverse diameter of the brim. The blades should grasp it in an oblique diameter approaching the antero-posterior. To be able to effect this, the trunk must be carried well forwards over the symphysis in the direction of Carus' curve, and held there by an assistant, so as to leave the outlet clear for manipulation. Then passing your left hand into the vagina, you carry the fingers to the left side of the pelvis, between the cervix uteri and the head. The blade is slipped up along the palmar aspect of the fingers to its place. The like proceeding is then repeated on the right side of the pelvis, and the blades are locked. The assistant supporting the child's body, you then draw the head into the pelvis in the axis of the brim. As soon as this is cleared you may take off the blades and finish the extraction by the hands. This is done by hooking two fingers of the right hand over the back of the neck, on the shoulders, whilst the left hand seizes the feet above the ankles, a napkin interposed. You then draw in the axis of the outlet. It is the work of a few seconds. Some will prefer completing the extraction with the forceps. If you select this mode, you find the face turned towards the sacral hollow when the head has cleared the brim; the forceps, following this, rotates a little in your hands. When the occiput is appearing under the pubic arch, carry the handles well forwards, so as to bring the face over the perinæum with the least possible strain upon this structure. The face and forehead sweep the perinæum, describing a curve around the occiput resting upon the pubes.

The use of the forceps in this case was strongly inculcated by Busch, of Berlin, who attributes to this practice the extraordinary success of turning in his hands. Of forty-four cases of turning, only three children are stated to have been lost from the effects of the operation. The late Dr. E. Rigby and Dr. Meigs insist also upon the advantage of the practice.

FIG. 23.

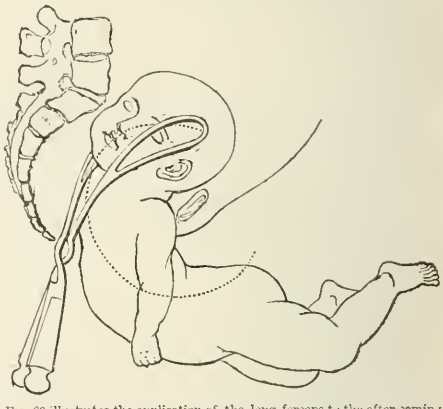

FIG. 23 illustrates the application of the long forceps to the after-coming head.

(a) *Dub. Journ. of Med.* vol. xiv.

(b) *Med. Chir. Trans.* 1822.

(c) It is worthy of remark that in the history of this case Mr. Green especially calls attention to the depressing effect of the warm-bath—a point since enforced by Milne Edwards and Marshall Hall.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. IV.

HAVING taken a survey of the features characteristic of cerebral diseases, the transition to that of thoracic affections follows as a matter of course. In this field we meet at the threshold with a valuable helpmate to our inquiries which is denied us for the most part in our previous study. Voice, in its varied intonations, and Speech, in its altered modulations, assist us in this department of Clinical Medicine.

The superiority of the respiratory system in man over that of all other animals is marked in this respect, that in him alone it is subservient to articulate language. The spinal and fifth cerebral nerves together form one system in supplying the various members of the body. The uses they serve in the economy present a singular uniformity throughout the whole animal kingdom. But in a review of the respiratory system, a striking difference exists. In the lowest animals the apparatus is exclusively employed to oxygenate the blood, but in the higher mammals it has a new and distinct office superadded to it—that of giving sounds by means of a larynx. A novel mechanism is here introduced, and so arranged that, in man, voice, speech, and expression may be enunciated by him to his fellow-man. The language of the latter endowment

is not less declarative in him than are his articulate sounds. Physiognomy—especially the expression of the varied passions and emotions of the mind—is equally understood by mankind all over the globe, for the mute infant and untutored savage possess the faculty of reading it.

Varied columns of air thrown by the respiratory forces with more or less intensity in form and in power on the vocal and lingual organs in mammals give utterance to their feelings. Under derangements of these channels, the human voice, speech, and respiration may be each or all altered from their natural character. In health, a square chest is usually associated with a muscular frame and a bass voice, but a shrillness in the latter with a tall and weak person. The timbre of each is influenced by the strong or feeble pulsations of air thrown upon the vocal cords.

But ere we enter this field of observation, let us for a moment pass into a domain analogous to it. The innumerable varieties of vocalisation met with throughout the animal kingdom have a meaning, and express a specific language. Passing by the inhabitants of the deep as aphonious, with the heart systemic only, we come to amphibia, where we meet with the first type of a sound prefigurative of voice, as in "the croak" of a bullfrog, or in "the roar" of the alligator. In these batrachians the arterial trunk, receiving both kinds of blood, distributes a small amount to the lungs through the pulmonary arteries. The various tones and modifications of voice with which terrestrial animals are endowed capacitate each tribe to give utterance to their different feelings of hunger, fear, dread, desire for society, love, melancholy, etc. These cries are intelligible not only to beasts and birds of the same species, but often to other tribes of a different species.

We may notice here the interesting circumstance that some form of voice, emitted by the agency of a pulmonary heart and circulation through a laryngeal apparatus in brutes, is always coexistent with an auditory cochlea. Aquatic animals possess an otolithe, encased in bone or cartilage, and three semicircular canals only, for the distribution of the auditory nerve, but no cochlea. A tympanic membrane, rudimentary cochlea and its chain of ossicula, are first shadowed out in amphibia, whilst in oviparous tribes and in mammals the whole structure of the auditory mechanism is nearly as perfect as it is in man. It has been fairly inferred, therefore, that whilst the office of the semicircular canals in air-breathing animals is to recognise the direction of sounds, placed as they are at right angles to each other, the function of the cochlea enables the animal to distinguish the pitch or tone of the voice. The development of this portion of the vestibule in different brutes corresponds also with the variety in the pitch or length of scale of the sounds, which it is important they should hear distinctly, especially the voices of their own kind.

Now, as fish, for the most part, do not fecundate by sexual congress, no effort is required to bring the pairs into a wooing condition; consequently a larynx with its powers of vocalisation is absent. The student of Nature, as he listens to the vernal notes of our famous songster, the thrush, cannot fail to notice the rich strains he peals forth as "he wooes his fair bride" for the approaching season, and how this luscious warble alters as he watches over his mate in her days of incubation, but loses all its richness after the summer solstice. The less harmonious "bahs" amongst a thousand nursing ewes are known by the respective lambkin or dam without confusion or mistake. Thus we see the wise arrangement of having the organ of hearing perfect at birth, so that the infant recognises the maternal voice long ere it can lisp its own "Ma." (a)

A physiognomist finds a certain intonation of voice accompanied with a characteristic expression of features and of temperament; whilst the pathological teachings of an altered voice, as well as of cough in the abstract, become an invaluable aid in the detection of many diseases. For instance, we acknowledge the *vox cholerica;* we can discriminate the faint guttural whisper of acute laryngitis from the mimic *labial* aphonia of hysteria. We may compare the sonorous voice of a sufferer from emphysema with the croaky hoarseness of a person with an attack of common cold, in whom no pulmonary distress exists.(b) Again, the hollow, deep tone of one who is the subject of tubercular excavations is often followed by the husky, half-cracked vibrations of the vocal cords in laryngeal phthisis. The *vox clangosa*, sounding as though the patient was speaking into a metallic pot, is familiar to those who have studied this symptom in maniacal delirium, and in fever, whilst the hoarseness in the latter disease always indicates imminent danger. The subdued monosyllabic replies of a patient with acute pleurisy contrast well with the full-toned, though feeble, voice of a sufferer from pneumonia. In the former instance the air is thrown out by a steady contraction of the abdominal walls against the diaphragm, but in the latter the intercostal muscles only allow the patient to express his feelings, so that no abrupt collapse of the inflamed lung should ensue. In emphysema pulmonum the pent-up air cannot escape in sufficient force to produce uniformity in modulation; hence the voice has always a high or low "clang," characteristic of the disease, just as the "gruff" or "aphonious speech" of a tubercular excavation tells us the extent of ulceration and loss of vibratory power in the vocal cords.

In studying these alterations in the intonation of a natural voice, we are not surprised to find also that cough partakes of a specific character under certain thoracic affections. But here is a messenger from one of the officials of the Hospital requesting us to join him in the Female Clinical Ward, where he proposes to make a few remarks on some special cases of interest to the students. On entering the room, the Professor was engaged in conversation with a round, flabby-faced servant girl and her mistress, a keeper of an adjoining coffee-house. The former presented those peculiar fresh-coloured cheeks that occasionally border upon a purplish or brickdust red, and which flush intensely upon the slightest mental excitement. Her shoulders were raised and thrown forwards, the lips thick, the nostrils dilated, the whole thorax rounded, the eyes were large, bold, and staring; in short, she was exhibited to the class as a good example of an asthmatical patient, who had been unable to do hard work. Her mistress informed us that, on scolding her, the face assumed such a deep purple, her breathing became laboured, and that in trying to cry she brayed like an ass, and so frightened them with her "choking for want of breath," that she sent for a Doctor, who ordered her to the Hospital. This proved a congenital case of asthma. The colour of the countenance marked the impediment to the course of the pulmonic circulation. "In fact, such cases are often mild forms of cyanosis," observed Dr. ——. "If you examine the portion of the ventricular chamber," he continued, "that forms the base of the pulmonary valves, you will find it thinner in substance than the other portion of the cardiac walls, and the surface, unlike other parts of the chamber, is not raised and sunken into minute hill and dale by the carneæ columnæ, but is smooth. This 'sacculus venosus' of some anatomists is often pouch-like, and capable of holding a small filbert in cases of emphysema, and the dilatation of the muscular bands is so constantly present in this disease of the lung that they must be regarded as synchronous. Such changes, although there may be a congenital tendency to them, are the result of repeated attacks of capillary bronchitis.

My mind was drawn away to the study of a nurse whose inharmonious and unequal tone of voice arrested my attention. She was answering some inquiries respecting the condition of a patient with that peculiar absence of euphony which is observed in a lad whose voice is just breaking. The eyes were widely open, the brows raised, the neck thrown backwards, the mouth slightly opened in every act of respiration, the nostrils distended, and the shoulders shrugged. A blind man might hear emphysema in that voice, as surely as he might recognise the apices of both lungs excavated by tuberculosis in the hollow "churchyard" cough that meets the ear. In all passports through the Papal States, the character and tone of the voice are specified in the physiognomical description of the traveller.

But a chorus of coughs reminds us that we are in a room set apart for the study of acute diseases of the chest. Look at that fine, square-faced girl: what suffering is depicted in the countenance as they are preparing to lay bare her chest for the purpose of cupping her! How short and shallow she breathes! With what a vehemence she twitches her left side

(a) It is a matter of surprise to many persons how the various "cries" by the London costermongers, fruit-sellers, and hawkers of vegetables are revived with such undeviating similarity as the seasons come round. The articles for sale are rarely expressed in language intelligible to a countryman, but the nature of each cry is so specific that to the ear of a Londoner the "goods" are definitely declared by the modulation, irrespective of words. The cockney delights in screaming from a tonic to a minor fourth or fifth, or *vice versa*. In Edinburgh and on the Continent the favourite rise is to a seventh, as far as the south of Europe. The "Il Pescatore" cry on an octave is quite euphonious in Florence and Milan.

(b) The plexus formed by the junction of the afferent and efferent laryngeal nerves, which is found on the crico-arytenoideus posticus and arytenoideus muscles, appears to control in man the expressions of his emotions and the modulation of his vocalising powers.

inward at every third or fourth inspiration! She has "herpes labialis" added to her flushed cheeks. Hark at that expressive short hack of a cough—how abrupt, and how it catches up the respiration and renews the contortion! Before the glasses are laid on, put your ear over the base of the left lung. A faint blowing and fine crepitation over a circumscribed spot are audible; but a sudden "Oh! sir, you hurt me," as you draw the trunk a little to the right side in your eagerness to listen, informs the ear that the voice is shriller here (ægophonic) than as it escapes from the mouth. Pleuro-pneumonia is read by the ear as well as by the eye. Let us leave her for the present to the cupper, and study that venerable person opposite, who is sitting up in bed, coughing in violent sonorous fits, with her spittoon grasped between her thighs as she strains and struggles to bring up some tough phlegm that is impinged perhaps on the tracheal bifurcation. Do you not hear the snoring, wheezing, and large crackling sounds over the bladebones? That cough would seem to burst the very sinuses of the brain from its intensity and long continuance. But why should that chubby-faced, meretricious young girl be an occupant of a bed in this ward? Simply that you may study the vagaries of hysteria as contrasted with real disease. Wait a minute; do not notice her; we shall soon hear her whims. There! listen to that "Hem! hem! hem!" and its follower, a noisy bark, telling us "Come and talk to me," or "Notice me." "Keep that cough quiet, Jones, or bury your head under the clothes," exclaimed Dr. —— in a loud commanding tone, and all was hushed immediately. As soon as our friend left the ward, however, the barking fit was renewed, and continued vehemently for some minutes, when a sudden scream and a rush of pupils, nurses, and patients to a bed at the furthest end of the ward put a stop to the incessant barks, which, writes Sir Thos. Watson, "I verily believe are more annoying to hear than to suffer."

We must defer any remarks on this interruption, and proceed to notice the accompanying portrait of a lad of 19 years of

age, which is full of interest. It displays at one glance the cerebral distress that accompanies acute inflammation within the thorax in the knitted brow and depressed angles of mouth and nose. A pale, anxious, greasy countenance, with low muttering delirium, the trunk and head raised by two additional pillows, the nostrils dilated, and their "alæ" waving to and fro at every breath, speak forcibly of the existence of pulmonary distress without congestion. As the eye traverses the exposed jugular, there is observed an oscillating carotid and a general fulness in the lower triangle of the neck. The floodgates of the heart are acting imperfectly; an undulatory motion is imparted to the vital fluid as it retrogrades into its chambers. Unbutton the shirt, expose the cardiac surface, and mark the slight bulging of the præcordial region; now place your ear on this spot, and the well-known "attrition sound" settles the whole question of diagnosis in a moment. Only one wrist is slightly swollen and painful from acute rheumatism; the poison is spending its direful ravages on the exo- and endo-cardiac membranes rather than on those of the joints. Profiting by past misfortunes, we applied our remedies to the local disease, and with a few leeches over the heart, a diet drink consisting of nitre in barley water, and a few large doses of colchicum with Dover's powder, the boy left the ward convalescent from rheumatism, but with unequivocal evidence of a permanently damaged heart. He returned the following year with a pale face, slight dyspnœa, much præcordial pain, forcible impulse, a double murmur, prominence of the cardiac region; no dropsy. Again he quitted the Hospital with partial relief, but only to return finally a few months afterwards, when the disease, not having relieved itself by general dropsy, proved fatal. There was general and firm adhesion of the whole pericardium, with hypertrophy of the cardiac walls, a thickened mitral, but trivial damage to the aortic, valves; the double murmur was, therefore, a regurgitant mitral one.

Past misfortunes, here alluded to, induce the writer to join issue with the simple treatment of the present day. Within a few hours, a London Physician has informed us that he has got a case of acute exocarditis through by means of steady, oft-repeated full doses of opium, with brandy in large quantities. In this treatment he was supported by the approval of an eminent Hospital M.D. The case is on record, but the hands that wrote it must surely belong to another race of Medical Practitioners from that whence sprang the doctrine that, in all such instances, the disease was only to be stamped out or slaughtered by a vigorous bleeding, "*coup sur coup*," *d'après* Bouillaud and the others.

Brought up to reverence this bold use of the lancet for strangling pericarditis in its birth, and Drs. Latham and Watson's unshrinking use of mercury, one's mind must have passed through a series of phases to be bold enough to publish the following assertion, twenty years ago, in reference to the uselessness of such treatment in rheumatic pericarditis:—

"This fact—the occurrence of ptyalism during the unabated violence of the inflammatory action in serous inflammation, but especially in pericarditis—it has been my lot to observe so repeatedly, during twenty years' Hospital practice, that I cannot accede to the proposition laid down by some eminent authorities, that mercury alone is to be trusted in this form of inflammation. Nay, further, I have witnessed several instances where calomel and opium have been administered at the outset of acute fibrous rheumatism, and whilst there was no appreciable alteration in the sounds of the heart; where also the gums have become vascular, a 'bruit' has subsequently arisen, or an attrition sound detected for the first time, though these auscultatory signs were sought for in vain before." (a)

SOFTENING OF THE BRAIN—HEMIPLEGIA AND CERTAIN REMARKABLE COMPLICATIONS—WITH REMARKS.

By ARTHUR LEARED, M.D., M.R.I.A.,
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A MERCHANT, 39 years of age, light-complexioned, of moderate stature and stoutness, and of very active habits, first consulted me in March, 1859, for a large ulcer over the right shoulder-joint. He assured me that he never had syphilis, but his appearance was highly strumous. Under the use of tonics and iodine ointment the sore had almost entirely healed in August, when he went to Calcutta, where he had previously lived for many years.

He was not long in India when he was attacked by severe dysentery, after which strumous ulceration of the right arm and shoulder again occurred. In February, 1860, immediately after his return to this country, he again consulted me; the sores had at this time healed, but he was greatly troubled by the irritation of a papular eruption on the scrotum and inside of the thighs, which his Physician told him was not uncommon in India. There was also effusion into the left knee-joint, by which it was much enlarged. The eruption soon yielded to arsenic.

In the course of this year he repeatedly consulted me for a succession of ailments—as deafness, ulceration of the throat

(c) *Medical Times*, p. 294, 1847.

and velum palati, which was penetrated; also for intense pain in the left side, accompanied by cough, and, I had reason to suspect, by slight effusion into the chest.

In October, 1861, he became suddenly affected with double vision and occasional dizziness. Mr. Wordsworth saw him with me in consultation. The sixth nerve on the left side was at fault, and both retinæ were congested—the left the most so. This condition appeared after some time to have been recovered from, under iodine, iron, and counter-irritation. I took occasion, however, to tell the patient my fears about his brain in case he continued to exert it as had been his wont.

On July 27, 1863, he consulted me, stating that he had been in good health for a long time, but that of late he had again got double vision, and that he saw objects "obliquely and below their real position." He also complained of slight transitory want of sensation in the left side of his face. Not long after this he again left England for Calcutta.

Soon after his return, in February, 1864, he called on me, looking well and much increased in flesh, but complaining of cough, with some expectoration.

On July 7 following I was sent for, and found him affected by complete right hemiplegia. He felt unwell and complained of his head on the previous evening. At supper, a slight distortion of the mouth was noticed, but he only joked about it. On awaking next morning he found himself unable to speak plainly. He dressed and came downstairs, notwithstanding, but almost immediately afterwards lost all power in the right arm and lower limb, and became quite inarticulate. The eyes were natural; temperature of affected side lower than that of the other; no pulse could be felt in the paralysed arm; the left hand was directed to the right side of the head, as if in pain. Ordered a blister to the neck, to be dressed with mercurial ointment. Later in the day he was seen in consultation with Dr. Handfield Jones. We determined to try the effects of iodide of potassium with colchicum. These, however, were omitted on the following day, as they seemed to depress him.

On July 10 he had fallen into so low a state that both food and medicine were refused. Urine was only passed by means of the catheter, and, in short, death appeared imminent. The pulse ranged between 70 and 80, and in the affected arm no pulsation whatever could be felt. Injections of strong beef-tea, with iod. potass. gr. x. in each, were ordered to be given every four hours that he was awake.

On the 13th he had rallied a little, and took some chicken broth by the mouth. The nutritive enemata had been constantly given, and were all retained. The iodide was at times omitted, and, when necessary, wine was added to the enemata. Another addition to them, which proved exceedingly useful in controlling a state of excitement and restlessness that sometimes came on, was tincture of hyoscyamus in half-drachm doses.

14th.—The blistered surface that had been constantly dressed with mercurial ointment was nearly healed; he repeated after me the words "no" and "go;" the tongue was protruded to the right; the left corner of the mouth was drawn up when smiling, and sensation of left side of face seemed impaired. It appears from my daily record of the case that the patient from this time gradually improved, so that by July 20 neither the catheter nor the enemata were longer required. He ate and drank freely, and the general health greatly improved. Nevertheless, no alteration in the palsied limbs occurred. Reflex action was readily excited by tickling the sole of the affected foot.

August 10.—The internal administration of the iodide was continued to this date, and for some days a gentle mercurial action was maintained by means of inunction. Articulation had been slowly improving. There was more expression in right side of face, but the state of the limbs was unchanged. All medicine was then omitted.

From the latter part of August to November 20 was passed at Brighton. He returned to town much improved in power of speech, able to stand alone, and to walk with help; but the affected arm remained immovable, and he complained of much dragging pain in the shoulder-joint.

March 13, 1865.—The patient, having so far recovered as to be able to enter into details of business, had, in spite of all warnings, harassed himself for some weeks with matters of great intricacy. This, without doubt, interfered with further improvement. Galvanism of the affected limbs with the interrupted current had been tried. It was discovered about this time that when the paralysed arm was rapidly flexed and extended a few times power was gained of keeping it contracted for a short period. There was now marked hyperæsthesia of the affected limbs.

16th.—Dr. Althaus saw the patient with me. He thought that galvanism should be continued, and that there was a fair chance of recovery, especially of the lower limb and of speech. It was evident, however, that not only articulation, but memory for words was impaired. This was proved when he tried to express himself by writing with the left hand, as he often did.

April 17.—I was telegraphed for to see him at Brighton, where he had gone a short time before. Business had again taken possession of him, and his mind never seemed at rest. I found that he had felt unwell two days previously, and on the day before became again entirely inarticulate, and that the power of motion in the affected lower limb was much diminished. He pointed to his head, as if he had pain there. The temples were ordered to be blistered, and the bowels to be moved freely. This treatment was attended with much relief.

June 11.—Returned from Brighton a few days previously. Looked healthy, but unintelligent. Memory for words almost quite gone. Said "No" for "Yes," and *vice versâ*. Speech so inarticulate that scarcely anything could be understood.

November 29.—Returned from Brighton, where he had been for a month. Little, if any, improvement had occurred. Much pain in back and hips complained of. Paralysed foot œdematous for a fortnight; the great toe was hot and painful.

December 21.—Œdema continued; toe was red, shining, and very painful. It was stated by his wife that whereas it was difficult previously to keep up the temperature of the limb, it could not then be kept cool enough. He was quite speechless. Ordered mixture containing colchicum and acetate of potash.

December 28.—Although the pain appeared at first to be benefited by the medicine, it now seemed to have lost its effect. The skin of the inflamed parts had desquamated, and the foot presented every appearance of gout.

January 24, 1866.—The inflammatory action had been active, but remittent, at times subsiding for a few days, to be renewed with more violence. Meantime, the colchicum had been abandoned on account of its depressing effect. The pain had been very great for some days previously. Not only the great toe, but all the others, with the entire instep, were involved. One side of the fourth toe had the white, shrunken appearance of a frostbite, and this member was the seat of acute suffering. It was most remarkable, too, that when I was about to touch the foot, the dark purple colour of the dorsum and of the toes immediately faded, and they assumed the colour of death. Both his wife and the attendant assured me they had repeatedly witnessed this strange phenomenon—as the latter expressed it, the foot "fainted several times a day." It was quite clear that it was caused by apprehension of injury.

February 5.—He suffered intense pain in the affected limb since the last date. It evidently originated in the parts in which gangrenous action was slowly progressing. At short intervals spasms occurred, which extended up the thigh, during which the affected leg was at times drawn forcibly upwards. They were always induced by lying down, and, from this cause, he was constantly obliged to sleep in a chair. For some days one-sixth of a grain of morphia was given at intervals, and from this some relief was obtained. On this day he had, for the first time, a severe epileptic fit, during which all the limbs were strongly convulsed, but the paralysed ones less than the others. Morphia to be discontinued, and hyoscyamus in large doses substituted.

March 5.—Almost worn out with pain and loss of rest; constantly affected by spasms, causing him to scream out, and requiring him to be assisted so as to stand up, which seemed to give relief. The right leg was highly œdematous; the terminal bone of the fourth toe protruded, and the great toe was in process of separation by a slow half gangrenous half ulcerative action. With the view of relieving the extreme pain felt in this part, congelation with Dr. Richardson's apparatus was attempted, but after the ether jet was applied for three minutes, it had to be abandoned on account of the increased suffering which it caused.

8th.—He was seized with another fit, which proved fatal.

At the post-mortem examination I had the valuable assistance of Dr. Handfield Jones and Mr. Wordsworth. There was no emaciation; the heart and lungs were healthy. Portions of the femoral and posterior tibial arteries of the paralysed limb were examined for embolism, with a negative result. On exposing the brain, a softened patch, having a pale

yellowish hue, presented itself, which occupied the greater part of the anterior third of the left hemisphere. It was somewhat quadrilateral in shape, extending close to the median fissure, but not to the outer part of the hemisphere. The convolutions were wasted, and to some extent replaced by subarachnoid fluid. The brain substance beneath this patch was found on section to be very soft, and to be deeply involved up to within one inch from the anterior extremity of the hemisphere. The corpus striatum and parts in front of it were softened and disorganised. A section through the corpus striatum presented an appearance in its anterior part of a cavity filled with soft, reticulated, reddish tissue. On the surface of the corpus striatum, over this *quasi* cavity, was a yellowish mass about the size of a small bean, of moderately firm fibrinoid material. The right hemisphere appeared healthy throughout. Microscopic examination of the diseased parts showed the brain structure to be much disorganised, and numerous glomeruli to be present.

Remarks.—This case presents many interesting features. The difficulty at times of distinguishing between apoplexy and softening of the brain is well known. Some of the circumstances in the present instance pointed to apoplexy, and the post-mortem examination could hardly be said to have cleared up the diagnosis. There were appearances such as might be due to the absorption of an old clot, and the softened state of the surrounding brain tissue might be attributed to inflammation which its presence had caused. The small fibrinoid mass seemed to represent the results of a second hæmorrhage occurring at the time when the power of speech was annihilated. But an attentive consideration of the history of the case and of the symptoms, such as the long-existing affection of vision and the hyperæsthesia, must lead to the conviction that it was a case of softening. Cerebral disease had without doubt commenced more than two years previous to the paralytic seizure, when he complained of double vision, and the left retina was found much congested. During the interval in question he consulted me only twice, once on account of the double vision and once for a cough, but his wife told me that he often experienced the affection of sight, although unwilling to have it mentioned. Now, it will be observed that previous to the cerebral symptoms he suffered from a number of other affections, as ulceration, skin eruption, effusion into knee-joint, and a pleuritic attack, all of which appeared to me to be of strumous origin. The connexion between these several affections, and their consequent dependence on a common source, were shown by the manner in which they replaced each other. And it is also to be remarked that during the long interval between the time when the patient first complained of double vision until the paralytic seizure he remained free from the first-named affections, and was otherwise in fair health. The existence of a general diathetic cause, the tendency of which was to manifest its effect in a particular way at a particular time, was evident. It is therefore a plain inference that the cerebral disease was also due to struma. Fully impressed with this view, when his vision became disturbed I strongly, but in vain, urged that an issue should be established in his arm with the hope of averting injury from the brain. The case is important as showing that struma may cause softening of the brain. It may, however, be objected that the brain disease and paralysis may have depended on syphilis. The ulceration of the shoulder and arm, perforation of the velum palati, and the skin eruption may seem to favour such a view of the case. But, as already said, the patient denied ever having had syphilis, and the ulcers, as well as their cicatrices on the shoulder and arm, presented every appearance of struma. I had previously attended a sister of the patient who had strumous sores on the neck, and who died of phthisis, and one of his children suffers from a strumous affection of the knee-joint. In the face, then, of so much positive and collateral evidence, it is a safe conclusion that the whole series of his ailments depended on the same morbid cause, and that that cause was struma. It may here be stated that the urine was repeatedly examined for albumen with a negative result. The situation, appearance of the parts, and the subsequent desquamation, all went to prove that the inflammation of the foot was at first that of true gout. It was readily accounted for by the full living and sedentary life of the patient after he became paralysed. The sloughing is to be explained by the low innervation of the paralysed limb and the consequent permanent distension and stasis of blood in the capillaries of the inflamed parts. I can find no such occurrence recorded, and its rarity is doubtless on account of the rarity of the combination in the same limb of gout with paralysis. The remarkable change from a dark purple colour to extreme paleness, so often witnessed in the foot, was evidently due to emotional causes acting through the vaso-motor nerves of its capillary vessels. The occurrence may be thus accounted for. The co-ordination of nervous action was interfered with by paresis of the motor nerves. Increased activity of the nerves of sensation resulted, attended by a very unusual energy of action in the ganglionic nerves of the part, resembling that which normally occurs in the face under the influence of emotions. After some time this phenomenon—unique, so far as I know—ceased, owing to the permanent distension of the capillaries, the prelude of the gangrene which ensued. Nor is it difficult to conceive that an abnormally active and exhausting condition of contraction and expansion in these delicate tubes should be succeeded by one of passive distension. Finally, it is worth remarking that the loss of memory for words in this case, coupled with the results of the post-mortem examination, affords additional evidence that this faculty depends on a special region of the brain. As alleged to occur in such instances, the anterior convolutions of the left hemisphere were found to be diseased.

12, Old Burlington-street.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE RADCLIFFE INFIRMARY, OXFORD.

The Wards—Accident Ward—Effects of Agricultural Machinery—Carbolic Acid as a Lotion—Sloughing Sore—Favus—Extirpation of the Eye—Case of Typhus—Treatment of Typhoid—Lead Poisoning—Case simulating Cancer of the Stomach—Pyæmia—Fractured Clavicle—Alcohol as an Application in Herpes—Chlorine Water as a Lotion—Varied Diet Card—Out-patient Rooms—Soup Kitchen.

As our readers are well aware, we have from time to time of late devoted a certain portion of our space to a general review of the practice to be seen at one or other of the large London Hospitals. But as many cases of interest occur in provincial institutions, and as it has not unusually happened that some of the most important improvements in the practice of Medicine and Surgery have originated in these Hospitals, we have judged it right not to limit ourselves to London, and accordingly propose to give now and again a sketch of what has been going on at some provincial Hospital. We cannot do better, under such circumstances, than to begin with Oxford, a place closely associated in our minds with everything that is highest in learning. Among the good deeds done by the cross-grained and miserly Dr. Radcliffe with his princely fortune when he had no more use for it was to found the Hospital which still bears his name. Erected towards the close of last century, when the principles of Hospital construction were not so well known as they are now, the wards are still remarkably airy, even in the oldest parts of the building, contrasting favourably with those elsewhere erected at a later date. They are arranged in the form of the letter H, and have a through ventilation from one side to the other. Altogether 140 beds can be made up. Pre-eminently a scholastic city, with no manufactures, Oxford does not in itself afford a wide field for the Surgeon, yet, as we have said, cases of accidental injury are by no means uncommon. Now-a-days, even in purely agricultural districts, accidents of a very severe nature occur, chiefly from the introduction of machinery into agricultural labour, although they are not so frequent, now that the labourers have become accustomed to its use, as they were at first. One case, the work of a threshing machine, we saw under the care of Mr. Symonds. The man's jaw was broken, and so was his right leg. The latter Mr. Symonds had placed in splints, one behind and two on either side, held together by a strap and buckle bandage, and suspended from a cradle. All such cases are received into an accident ward, one of the best of the kind we have ever seen. Lofty and well ventilated, the walls and roof are coated with Keen's cement, coloured so as to avoid the glare of the pure white wall; the floor is of oak, oiled and polished, whilst under each bed, to avoid the soakage of any discharges, the floor is formed of porcelain slabs. On tables lie splints of the most approved form, padded and ready for application, whilst (which adds not a little to the comfort of the patient), each is provided with a sort

of chest for holding his food, and having a folding back which enables it to be used as a table to project over his bed when drawn up to its side. In strong contrast to the arrangements in other portions of the building, which sadly need revision, the waterclosets are here outside the walls and quite separated from the other ward offices. In this and the other wards we saw several cases where carbolic acid was used as a lotion; the Surgeons spoke highly of the application. One case under the care of Mr. Symonds struck us particularly. The patient, a man having no history in particular, had been subject to repeated outbreaks of superficial sloughing over the abdomen, which was extensively marked with cicatrices. The attack under which he was labouring at the time of our visit had extended higher than any of the former ones, and the patient's side presented the appearance of a raw ugly sore. Carbolic acid was applied to keep it sweet, but both nitric acid and the acid nitrate of mercury had failed to arrest the spread of the sore. The strong blistering solution of the British Pharmacopœia appeared to yield better results than either. Arseniate of soda was being given internally.

Diseases of the skin are reported as especially common in this and other country Hospitals. What can be the meaning of it? Is it due to an abhorrence of soap and water on the part of the rustic? Thus, in the children's ward—a recent experiment, and a most promising one—we observed, under Drs. Gray and Tuckwell, a considerable number of cases, some of them of favus. In one of the latter, Dr. Gray pointed out direct contagion between the head and the neck, effected through the medium of crusts removed by the nails. The disease also existed below these, having been produced by crusts in the process of scratching. The treatment pursued is to soften the crusts by oil of cade and olive oil (a capital preparation); then follow epilation and blistering. One whole family had been affected and thus treated one after the other. The results are highly satisfactory.

A good many eye cases also turn up, mostly under the care of Mr. Symonds, and very frequently they are of a strumous character. One we saw in which one eye had been removed to prevent sympathetic irritation in the other. The plan adopted was to incise the conjunctiva round about the cornea, to separate it gradually from the eyeball until the muscles could be reached. These were divided, as were the other objects at the posterior part of the eye, by means of a pair of curved scissors, and the globe removed. By bringing together the conjunctiva at the bottom of the orbit, a capital bed for an artificial eye is secured, much better than if the whole of the conjunctiva were cut away. The only operation superior to this is Critchett's, where the posterior portion of the ball of the eye is left as well; but this is not adapted for every case where the eyeball requires removal. The case we saw under Mr. Symonds was gratifying in the extreme.

Fever is rare in Oxford; but in the neighbourhood, as in other country districts, where hygiene is habitually neglected, typhoid is not unusual. One case of typhus having a most interesting history we saw with Dr. Acland in the Infirmary. The origin of isolated outbreaks of typhus is often difficult to understand, for frequently all the particulars connected with infection will not be divulged, and the Medical inquirer is left to make the best guess he can. In this case, however, contagion could be distinctly traced. A boy came from Taunton, where typhus was raging, though not himself suffering from fever, on a visit to a village near Oxford; first one of the family was seized with typhus, then another, until it had passed over them all. Some of them died, and the boy alone was brought to the Infirmary. In the treatment of typhoid there seems, now-a-days, to be singular unanimity. Here, as elsewhere, the use of mineral acids in small doses is wellnigh universally adopted. Stimulants are given but sparingly, and never for a very long time.

Under the care of Dr. Tuckwell we noticed a striking case of lead-poisoning. The man had been a painter for fifty years, and had long been subject to wrist-drop; still he persevered in his work, for by bringing both his hands to his brush he was able to do some of the rougher kinds of painting. The line along the roots of his teeth, from which his gums were shrunken, was intensely not blue, but black, and he was greatly emaciated. Notwithstanding all this, the man had been at work up to the period of his admission; not, however, with impunity, for his urine was albuminous and of a low specific gravity, though it contained no casts, and there was no swelling of the body; his mind was affected, and he had become subject to fits. In such a state of matters it was no wonder that he did not improve with iodide of potassium, which was first tried, but finally abandoned for iron. The case may be considered a typical one of advanced lead-poisoning. Another case, for the particulars of which we are also indebted to Dr. Tuckwell, is of importance, as it shows exceedingly well the difficulty of diagnosing malignant from functional disease of the stomach, and how much may be done by careful dieting and treatment for the most unpromising cases. As will be seen, the patient, when admitted, laboured under all the symptoms of cancer of the pylorus, yet he went out cured.

A printer had suffered for twelve weeks with severe pain and distension of the bowels and stomach, always increased by food. He had vomited frequently, sometimes half an hour to an hour after his meals, sometimes once in the evening after a whole day's extreme suffering. The vomited matter was usually sour and watery, but had more than once been very copious and covered with a yeasty froth, but he had never vomited blood. His bowels had been obstinately constipated, but he had never suffered from the colic, which had attacked some of his fellow-workmen. His appearance on admission was quite that of a man suffering from malignant disease. He was much emaciated, and had a very sallow cachectic appearance. His gums were pale, and presented no trace of blue line; his tongue was pale, but clean; his pulse 88 and very feeble; his skin moist and cool; and his appetite very bad. He complained of severe pain and distress from great distension of his stomach, with a sensation as if something was constantly "broiling up" inside him. There was nothing abnormal detected in the physical examination of the chest, but the stomach was found by palpation and percussion to be really enormously distended, not only pushing its way up high into the left lower lateral region and filling up the left hypochondrium, but extending right down into the upper hypogastric and over into the right lumbar region. Its dimensions could be every now and then traced out with the eye, when it was unusually distended and its peristaltic movements unusually active, while sharp pressure over it with the hand produced a loud gurgling, which could be heard several feet from the bed. After he had been in a few days he vomited, after extreme suffering, a potful of fluid with an abundant frothy scum. This latter, examined with the microscope, was found to contain myriads of sarcinæ, with the spores and thallus of *torula cerevisii*. He was ordered to take every hour half a coffee-cupful of milk, with a teaspoonful of lime-water in it. He took occasionally a pill containing ol. crotonis m ½, pil. col. co. gr. iij., extr. hyoscyami gr. ij., which acted once freely and gave great relief. From this time his vomiting and discomfort began to abate. No more sarcinæ appeared. In a week's time he began with a scrap of mutton daily, still continuing the milk. In a fortnight, the pain and vomiting having quite abated, he discontinued the lime-water, and took the pil. ferri carb. three times a day. The stomach meanwhile gradually decreased in size, till at the end of a month it occupied the epigastric and left hypochondriac region, and could no longer be seen to move or be heard when pressed upon. He was ordered half meat diet, without vegetables, and a week later discharged. He was seen again some time after, when he had quite lost his sallow look, and was feeling well. He was able to digest his food comfortably, and do a good day's work.

As in most small provincial Hospitals, pyæmia is rare at Oxford, only a few cases being on record, usually in connexion with disease of bone. Recovery after operation is, as a rule, rapid, probably, as Mr. Hussey remarks, owing to considerable care being taken in suitable cases to acclimatise the patient to the Hospital atmosphere before anything of importance is attempted. This rule is, we fear, sometimes neglected elsewhere when Surgeons are pressed for beds. In treating fracture of the clavicle, Mr. Hussey makes use of no apparatus whatever. He leaves the fractured bone and shoulder alone, and attends only to the position of the arm. So also in the case of the fibula. One curious case, resulting from or following fracture of the humerus, occurred here not long ago. The patient had some shivering fits, and appeared about to be attacked by pyæmia. He recovered, without any affection of the heart or, apparently, any deposit of pus, but with necrosis of both clavicles and similar destruction of the lower ends of both fibulæ. Mr. Briscoe showed us another curious case, where the bones of the arm, although apparently healthy, had become completely covered with new bone.

One or two practical hints, and we take leave of the in-patient department. In the treatment of herpes zoster Mr. Winkfield, the House-Surgeon, informs us that it is customary to

mop over the surface where the eruption is just appearing with the strong spirit, which has the effect of arresting further development of the eruption, if continued twice a day for a short time. Again, as an application to ulcers, especially if unhealthy and secreting a foul ichorous discharge, Mr. Symonds is accustomed to recommend a solution of chlorine in water with the most beneficial results. On the diet card of each patient is a column marked "Varied diet;" this consists of various articles which may be substituted one for another—fresh eggs, milk, various forms of meat, etc. When ordered varied diet, the patient has the power of selecting any of these he or she may think proper. The plan is good; it saves the Medical man's time, and enables the patient to think over what he would best like.

The out-patient departments, thanks to the indefatigable exertions of Dr. Acland, are now splendid; formerly they were very poor. The patients wait in a large hall, well ventilated and warmed; everything is done for their comfort. There is even a collection of books from which they can select one for their amusement while waiting. They are seen twice a week, on Wednesdays and Saturdays, when all the officers are present. Each of these has a room for himself nicely fitted up—that of Dr. Acland, as Clinical Professor, with every convenience for the scientific investigation of disease. On Wednesday the people from the town are seen; on Saturday those from the country. As many of the country patients come a long distance, a charitable lady has had fitted up a soup-kitchen in connexion with this department. By paying a penny each patient is supplied with a basin of capital soup and a piece of bread; those who are too poor to pay this penny get a free ticket from their Medical officer. In many cases doubtless the soup does quite as much good as the physic. We might also speak of the teaching appliances in connexion with the University, for which Dr. Acland has done so much, but we limit ourselves in the meantime to the practical work at the Infirmary. Before closing, we beg leave to thank all the officers of this institution for their kindness and attention.

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Medical Times and Gazette.

SATURDAY, OCTOBER 12, 1867.

NINTH REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

[second article.]

We proceed now to notice the salient features of the report in relation to cholera.

Mr. Simon first traces the rise and progress of cholera in England in 1866. On April 28 the first case was reported of a trader from Rotterdam arriving sick at Bristol; on May 15 telegrams from Liverpool and Birkenhead announced the prevalence of the disease on board emigrant vessels in the Mersey; soon after the 15th were reported the first two cases of what afterwards became a serious epidemic at Swansea; single cases in various other parts of the country were also notified. On June 15 it was announced that the Peninsular and Oriental steamer *Poonah* had arrived at Southampton with a case of cholera on board, and that several other cases had appeared in the town; on the 29th two deaths were reported from Goole, the disease having clearly been imported from Antwerp; on the 30th three deaths were reported from Northwich (in Cheshire), and on the same day a case of cholera occurred at Shields on board a vessel from Hamburg. On July 3 a case was reported to have happened at Harwich, on board a vessel from Brussels; and another at Brixham, resulting in the death of the captain of a coasting vessel. From that time reports of new centres of infection became more and more frequent, and as it was evident that the foci were widely scattered in many different directions, the Order in Council was issued on July 14, putting the Diseases Prevention Act in force throughout the whole of England and Wales. On July 18 the first cholera death (from Poplar) was reported in the metropolis, as the harbinger of the fierce "explosion" which almost suddenly transformed the eastern districts into a veritable valley of the shadow of death. The details of this outbreak, and its probable cause, have been made the subject of an elaborate special report by Mr. Netten Radcliffe, which is deserving of attentive study. Mr. Simon is unable to give any statistics showing the total fatality of cholera throughout the country, as these can only be ascertained when the abstracts of deaths for the year 1866 are published by the Registrar-General. After the end of September the disease rapidly died away throughout the country, excepting a few occasional cases.

The proceedings taken by the Privy Council in 1866 with reference to the general danger of cholera in England are recorded in the various regulations, directions, and memoranda officially issued, and copies of these documents are collected in the appendix to Mr. Simon's report. With reference to particular local epidemics, special investigations were conducted by Dr. Buchanan at Liverpool, Holyhead, and Pill; by Professor Parkes at Southampton; by Dr. Seaton at Carnarvon; and by Mr. Radcliffe in East London; each of these gentlemen reporting separately the results of his inquiries.

Passing now to the attempts which were organised by Mr. Simon for narrowing, if possible, the limits of uncertainty on points connected with the pathology and therapeutics of cholera, by special research and observation, we notice that of the five proposed branches of inquiry three have been conducted wholly or partly to an issue, and their results are given in the report.

The first of these has reference to the degrees of success attained by different methods of *treatment* of cholera, especially as practised in the London Hospitals. It was entrusted to a committee of four Physicians, representing the Hospitals receiving the major part of the cases during the progress of the epidemic. Towards the end of the year the Treatment Committee informed Mr. Simon that the information before them was not enough to form the basis of a satisfactory report, so their functions were extended to the end of the present year. At the same time, as it seemed important to have some testimony to the quality of the epidemic in relation to Medical practice, application was made to Dr. Sutton, who had been in charge of Miss Sellon's temporary Cholera Hospital in East London, and that gentleman has contributed a record of the Medical experiences of that most serviceable charity, which may be regarded as a model of patient, acute, and thoroughly scientific observation. It is not our present purpose to discuss this and the other special reports in detail, but we may say briefly that Dr. Sutton's clinical notes supply data (limited, of course) relating to the symptoms, pathology, and treatment of 250 cases of Asiatic cholera, by which many current ideas may be confirmed, modified, or dissipated.

To Dr. Burdon Sanderson was delegated the verification of alleged experimental proofs of the *communicability* of cholera; and, pursuing the line of investigation adopted previously by Dr. Thiersch, he has conducted a series of experiments upon mice, by administering to them small doses of the intestinal liquid of cholera patients in various stages of decomposition, which have resulted in unmistakable proofs that a disease

analogous to cholera can be thus communicated to the lower animals. The inference as regards the communicability by the same means of the same disease from one human being to another is irresistible.

Dr. Thudichum's report on the successive *chemical* changes undergone by the body in cholera, and the relations subsisting between those changes and the symptoms presented during life, embraces (1) post-mortem examinations (anatomical and chemical) of cholera cases; (2) chemical examination of intestinal contents and rice-water evacuations; (3) short accounts of the general features of urine of cholera reaction, with special supplement on choleraic urocyaninogen; and (4) clinical observations bearing upon the laws of temperature in cholera. The importance of all these points of inquiry can hardly be over-estimated, as it is by their patient and scientific elucidation alone that the true laws of cholera can be arrived at.

Mr. Simon regrets that the last year's arrangements for investigation could not include the anatomy, and especially the microscopy, of the body in cholera—the more so as that line of study has led in Germany to new and striking observations, particularly of the presence in the stomach and intestines of cholera patients of "microscopical fungic bodies, innumerable and vehemently multiplying, whereof swarms are shed, with prolific and infective power, in each characteristic evacuation of the sick." The results of an independent study of the affected mucous membrane in cholera, which was so ably made with the microscope by Dr. Beale, and which we were privileged to publish in this journal, represent the sum of English research in this particular, so far as the epidemic of last year is concerned.

The branch of inquiry entrusted to the competent hands of Mr. Glaisher embraced the collection of meteorological facts, as well as of facts on the line of study opened by Pettenkofer, as to the non-coincidence of local epidemics of cholera with such conditions of the local ground-water as are indicated by a full state of surface-wells. This inquiry was unfortunately suspended through the serious illness of Mr. Glaisher.

The cholera conference at Weimar gave Mr. Simon the opportunity of comparing notes with the foremost of his fellow-workers in the field of epidemiology on the Continent, and the results of this interchange of experience as regards our present practical knowledge of cholera are thus expressed:—

"I am led to consider once more whether the additions which our previous knowledge of cholera has hitherto during this epidemic received, are such as to change in any respect the principles on which I have heretofore advised against cholera, or in any way to require that I should make other practical recommendations than those which were last year issued from this department. After giving to this question the best consideration in my power, I answer it, though with very mixed feelings, confidently in the negative. Doubtless it is lamentable that one should still have to speak almost with despair of the Medical treatment of developed cholera. But so it is. The task continues to be, as from our first acquaintance with the disease it has been, an almost hopeless task for the Practitioner. The experience of renewed epidemics, the studies of thirty-five years, have in this respect done little more than warn us from various kinds of hurtful activity, and teach us that at present our utmost power is but perhaps some very little ability of palliation In the treatment of incipient cholera there might certainly seem more room for hope; but competent Physicians are not agreed that even here their art has much true efficiency against the disease. Practically, then, more and more, as facts like the above become notorious, the business of resisting cholera on any large scale resolves itself into aims of prevention. And in contrast with the powerlessness of curative medicine, the preventive power which we possess is among the happiest possessions of science. Yet here, as in the former respect, though for reasons which are widely different, I have again nothing new to advise. That which for public use in this country I believe to be, without any shadow of doubt, now, as for long-past years, the all-important principle of cholera prevention—the principle that, for us, cholera derives all its epidemic destructiveness from filth, and specially from excremental uncleanness—this, of course, may be iterated and reiterated, with new and newer illustrations, but the utmost prominence which I can give to it was given in my last year's memorandum, and new knowledge neither permits me to express myself less strongly on the subject, nor enables me to express myself more strongly, than I have done even years and years ago."

With regard to the doctrine of the cholera fungus, Mr. Simon remarks that in its broad signification the discovery would be no surprise to pathologists, who have for some years past recognised the possibility that perhaps every fermentatory or putrefactive change of organic material has with it, and maybe as its cause, a characteristic molecular living thing; and although that may be the case with the choleraic zymosis, it remains yet untried whether disinfection would be more effective on that basis than on the purely chemical basis which has hitherto been the ground of our proceedings.

Mr. Simon insists with the utmost force upon the absolute relation of cholera in England to faults of drainage and water supply.

"It cannot be too distinctly understood," he says, "that the person who contracts cholera in this country is, *ipso facto*, demonstrated with almost absolute certainty to have been exposed to excremental pollution; that what gave him cholera was (mediately or immediately) cholera contagium discharged from another's bowels; that, in short, the diffusion of cholera among us depends entirely upon the numberless filthy facilities which are let exist, and specially in our larger towns, for the fouling of earth and air and water, and thus secondarily for the infection of man, with whatever contagium may be contained in the miscellaneous outflowings of the population."

And thus his practical advice remains substantially what it has been for years—remove thoroughly the excremental produce of the population, that the soil and air of the inhabited place shall be absolutely without fæcal impurities; and let the water supply of the population be derived from such sources and conveyed in such channels that its contamination by excrement is impossible.

THE ROYAL HOSPITAL FOR INCURABLES.

Two of our weekly contemporaries have fallen foul of the Royal Hospital for Incurables, an institution which has received extensive popular support, and has, up to the present time, been believed to be carrying out satisfactorily the objects for which it was founded. The attack was commenced by the *Athenæum* on August 24 last, and on September 21 appeared a second article more virulent even than the first, and said to be based upon information received from unnamed correspondents. On September 28, attention was directed editorially by the *Lancet* to these articles, and to the correspondence published in connexion with them, in which full credit appears to be given to the statements of the *Athenæum*, and an appeal is made to the governors to institute an immediate inquiry into "the abuses" of the institution. Neither the editor of the *Athenæum* nor the editor of the *Lancet* took the trouble to ascertain by personal inquiry how far they were warranted in adopting as truth the statements to which they gave publicity. The principal charges brought against the institution and its management are the following:—1. That a very large proportion of the sums of money received has been expended in the erection of buildings and in the purchase of stock and land by way of investment. 2. That the building, Melrose Hall, near Putney, purchased and subsequently added to by the erection of a wing, is quite unfit for the purposes of a Hospital. 3. That the institution is exceedingly deficient in such important essentials as bath accommodation, water supply, wardrobe arrangements, and so forth. 4. That the ventilation is very imperfect, and that foul smells prevail in the apartments. 5. That the partitions between the rooms are so thin as to permit of noises and even conversations

being heard by occupants of adjoining rooms. 6. That there is no lift or other appliance for bringing invalids from the upper rooms to the basement for the purpose of getting into the fresh air, while it is insinuated that the rooms are cheerless and free from all ornamentation, and the windows so high that bedridden patients can get no glimpse of the outside world. 7. That indecencies as regards the dead, and cruelties as respects the living, have been perpetrated within its walls; and, 8, that there is no resident Surgeon in the establishment.

It is a common saying that there is no smoke without fire. When a public institution is thus attacked, probability is in favour of there being something really blameworthy, although, when the attack is as virulent as that made upon the Hospital for Incurables, there is an equal probability that the writer has permitted himself to indulge more or less in hyperbole. Accordingly, in order to discover how far the statements of the journals referred to were based upon truth, we took the trouble a day or two ago to pay a visit to the institution. We did so unexpectedly, so that when we arrived the governor was away in town, and we saw the building and wards in their every-day aspect. We did not miss a single room from the basement to the roof; we arrived in time to see the patients at dinner, and we remained to see the preparations for tea made in the kitchen; and we are going to give a faithful account of the impression left upon our mind.

1. *As to the alleged Inconvenience of the Building.*—The building is well, conveniently, and healthily situated, in extensive grounds about a mile from the village of Putney. It consists of the original building of Melrose Hall, and of an occupied wing erected since its purchase. Another wing is in course of construction. It differs from ordinary Hospitals in this—that, in place of putting the patients into large wards, they are distributed into apartments more resembling those of a private house or of a gentleman's mansion. Some few of them have rooms to themselves; in no case are there more than eight beds in a room. Except on the top floor the apartments are very lofty, those on the ground floor being about thirteen or fourteen foot high, and those on the first floor over eleven feet. At the top of the house they measured over eight feet in height. In the larger rooms the cubical space allotted to each inmate was 1000 feet; in some a trifle more, in some a trifle less. In the two-bedded rooms at the top of the old building we found the cubic space per bed about 830 feet. In only one ward with seven beds was the cubic space so small as 500 feet per bed. This amount is no doubt too small, but the completion of the new wing will enable the managers to rectify this error. All the rooms communicate with wide and mostly well-ventilated corridors, in which are situated, on each floor, the waterclosets and lavatories, about the arrangement and position of which we find nothing particular to complain. The kitchen arrangements are admirable, and a lift is provided whereby the meals are carried up hot and covered to those who are unable to quit their apartment. We entered into conversation with some of the inmates when no one else was in the room, and they all expressed their sense of the greater comfort of the arrangement of smaller rooms than of that by which a large number of persons are aggregated in one large ward. None of them appeared to have experienced inconvenience from the plan adopted by the managers.

2. *As to the Accommodations.*—It is untrue to say that the bath-room arrangements are insufficient. Every corridor has its bath-room, and portable baths are, we are assured, provided for those who cannot leave their apartment. Neither is it true that there is a deficient water supply. Water is laid on to every corridor, sufficient in quantity and purified by charcoal filtration. Neither is it true that the wardrobe arrangements are deficient. Beside each bed there is placed a very capacious chiffonier, provided with a deep drawer and a shelved cupboard, in which all that is needed for the immediate purposes of the invalid may be stored; besides which, each patient has a drawer allotted to him in a sort of box room, in which articles not in immediate use can be kept. Beside each bed there is also a nightstool, and the bedridden have a small table provided, and special arrangements for reading or working with convenience. The only deficiency in this respect which attracted our notice was a short supply of washstands in the larger wards. The excuse given us was that very few of the patients could wash themselves, and so have to be washed in turn by the nurses. Still, we cannot avoid thinking that this is a matter requiring to be rectified by the committee, and one which merely requires to be kindly pointed out to them.

3. *As to Ventilation and Warming.*—There are special arrangements in use for the complete and natural ventilation of the corridors, and the whole building is warmed by hot water. Some of the smaller rooms did strike us as close and somewhat offensive, but these were only such as were occupied by bedridden patients. It was a cold day, and the windows were closed. In warm weather, when the windows can be opened, there would probably be no lack of ventilation; but even a fire in the apartment did not suffice to obviate the fault in the two or three instances referred to. Otherwise we perceived little cause for complaint on this score. The ladies' day-room, where about thirty were occupied as they would be in any ordinary boarding-house drawing-room, also struck us as not sufficiently provided with means for renewing the air when the windows opening upon the lawn are closed. This also is a thing which a small expense might set right. We may mention that, with the exception of two, every room is provided with an open fireplace. The rooms we refer to have been injudiciously cut off by partitions from a larger room. We should recommend the removal of these partitions.

4. *As to the Thinness of the Partitions.*—This fault, which has been grossly exaggerated, exists only in some of the top rooms. We talked to some of the inmates about the inconvenience they experienced from it, and the universal verdict was that they would rather have the thin partition than none at all, and that it was very rarely that they were annoyed by talking or noises in the adjoining room. In the new wing now erecting the partitions will be of brick, in place of wainscot, and when it is completed the managers will no doubt see it desirable to alter those complained of.

5. *As to the alleged Deficiency of Conveniences for getting Patients into the Open Air.*—There is a lift, and we saw it used. It is large enough to convey up or down half a dozen persons at a time. Carriages and wheeled chairs abound in the establishment, and they are taken into the corridors—on the top floor even—for those who would otherwise be unable to get out. Of thirty-two male patients there were only three in their bedrooms at the time of our visit; and of the seventy-four females thirty-three were dining at the general table in the dining-room. The rest were in their apartments, either from preference or because they were bedridden. There is not the least difficulty in any patient getting out as often as he pleases or when he pleases, and this without effort on his part. Neither is it true that the rooms are generally cheerless. The windows are not so high but that even bedridden patients can look out; one lady in particular entertained us with an account of a fire she had watched as she lay in bed. Every room has its bookshelves, and the apartments of the female patients were decorated with all those little knick-knacks which ladies are so partial to. Flowers and ferns decorated the window-sills; several of the patients had their pet birds by their bedside, and the walls were enlivened by prints and pictures. Of course there were varieties in this respect, following the varieties in the taste of the occupants; but in all the female apartments there was an air of home and of comfort which, from the accounts we had read, we were not prepared to expect. There is less to be said in

this respect for the men's rooms; they certainly did strike us as somewhat bare and comfortless, but then there are very few men who occupy these rooms in the day time, and a luxurious library is provided for them downstairs.

6. *As to the alleged Indecencies and Cruelties practised in the Asylum.*—Of course we can state nothing of our own knowledge upon this subject, but we have before us as we write the shorthand *verbatim* notes of the inquest held upon one of the patients at the request of the committee—the inquest referred to by the *Athenæum* as that in which charges of improper treatment were brought against the officials. Now, it is remarkable that at that inquest the person who had been most active in propagating the rumours to clear up which the inquiry was instituted, did not dare himself to bring forward any specific charge whatever; the relations of the deceased very expressly and forcibly stated that they had no reason at all to be dissatisfied with the treatment she had undergone, and the jury separated without expressing any blame upon the management of the institution. We understand that this and other matters which we have not entered upon—financial matters, for example—will be made the subject of a statement to the next meeting of the governors. But it still remains for us to remark upon the admitted fact that there is no resident Medical officer in the establishment. It will be difficult to convince the Profession that such an officer is not necessary where a hundred patients afflicted with chronic maladies, and liable to attacks of acute suffering, are congregated together in one building. In fact, the "governor" of a Home of this sort, for it is a home or asylum more truly than a Hospital, ought to be a Medical man, and he ought to have undisputed control over the whole establishment—not to direct the Medical treatment only, but to regulate the association of the patients and to exercise hourly supervision over the nurses and attendants. It could hardly have happened, had such an officer been appointed, that the rumours of improper treatment of patients could have arisen, which have been a source of so much trouble to the committee of management.

It will be seen from this that we do not find the institution absolutely perfect, but we repeat that many of the damaging statements published respecting it are utterly devoid of truth; others are exaggerated. The faults which exist are only such as require to be pointed out in a spirit of kindness. In place of this, the institution has been attacked injudiciously and unfairly, as if there were not a good point about it, and as if it had not been founded from motives of the purest philanthropy, and conducted greatly to the benefit of its unhappy inmates.

CELIBATE FELLOWSHIPS.

We are so much accustomed to take for granted the existence of anomalies in our old Universities, that an institution which, if it were proposed to establish it anew, would be condemned on all sides as a flagrant violation of natural laws, is suffered to exist in them almost without remark. All Fellows of Colleges in Oxford, and nearly all in Cambridge, are bound to celibacy during the tenure of their Fellowships, with the exception of a few Professors who are also Fellows. The origin of the restriction dates from the time of the foundation of the Colleges, and the original reasons for it were two, both equally cogent. First, all Fellows were required after a certain period of tenure to become priests in the Roman Church or to vacate their Fellowships; and secondly, the Colleges were little more than hostels for poor students, in which the Fellows lived four in a room. Married Fellows were therefore obviously an impossibility. But after the Reformation the first reason ceased to exist, and modern customs have removed the second. The strength of vested interests, however, has been so great that the restriction, now absolutely useless, has been continued to the present day, because every junior has an interest in promoting vacancies among his seniors.

"It is not good for man to be alone," says the First Book of Moses, on the highest possible authority. Apparently, however, the last University Commission thought otherwise; for they retained in force this most strange social anomaly, and made no attempt either to mitigate its present evils or to provide for its future extinction. The consequence is that they stand committed to the opinion that it is good for a young man of two-and-twenty to devote himself to a celibate life for an indefinite time, without any previous preparation and without in the least knowing whether he is fit for it, and to pass the prime of his manhood alone, looking, it may be, to the dim prospect of a late college living or professional success. The Roman Church, insisting for its own reasons on a celibate clergy, more prudently takes care to cut them off from all thoughts of home and kindred from the very first; and while it prepares them for the abnormal state in which they are to live by a special training designed to repress artificially all instincts in that direction, leaves no prospect of any other spouse than the Church on this side the grave. No doubt this system, unnatural and hateful as it must appear to a large part of mankind, is in the main successful. By its means the Roman Church does obtain a supply of loyal priests, who have crushed out of themselves certain natural instincts, and replaced them with an undivided devotion to herself.

But what can be said for celibate Fellowships? They represent no principle; they serve no social or political purpose; they are unconnected with any religious system. They are marvelled at by those who do not understand them, and hated by those who do. There is a remarkable unanimity in the testimony given against them by the witnesses called before Mr. Ewart's Committee—the more remarkable, as there are so many points on which the witnesses differ.

Let us see what are the consequences which we should, *à priori*, expect to result from such an enforced restriction. We should scarcely be surprised, in the first place, to learn that the history of Oxford and Cambridge showed that Fellowships encouraged a selfish and objectless life; that they favoured small and bitter animosities; that the lists of their holders showed an undue proportion of promising men who have come to nothing; that aberrations of various instincts had been heard of; that the life of Fellows was certainly not above the average in duration, and that they contributed more than their share to the average of mental disease among those of their own grade of society. Further, we should not wonder at hearing of a paucity of children among college incumbents. Whether any of these things are or have been so, we do not pretend to say; but when we hear, as we do, that a college in Oxford is setting the example of trying to free itself from its burden, we can heartily wish it success. Of course the proposal must allow existing Fellows who desire to avail themselves of the change to retain their Fellowships only for a limited number of years, calculated from the average tenure of Fellowships, so that no injustice may be done to any expectant.

We feel perfectly confident, moreover, that if the Colleges are unable to put an end to so mischievous an anachronism, the Legislature will soon do it for them.

THE WEEK.

TOPICS OF THE DAY.

Those of our readers who had the advantage of attending the first of Dr. Richardson's physiological lectures, delivered on Tuesday last, witnessed an experiment which inflicted a severe blow on Snow's theory of the anæsthetic action of chloroform and its allies. Snow's hypothesis, which probably has obtained more favour from the scientific world than any other, was simply that the anæsthesia produced by chloroform is the result of the arrest of oxidation within the body, and this supposition he mainly based on the fact that out of the body

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the vapour does not support combustion—that, for instance, a lighted paper introduced into a jar of chloroform is immediately extinguished. Dr. Richardson has, however, discovered a new anæsthetic in the bichloride of methylene—a substance belonging to the same series as chloroform—the ascertained properties of which establish a probability that it will be found a safer and more manageable anæsthetic than either chloroform or tetrachloride of carbon, but which differs from both these bodies in the remarkable particular that instead of its vapour being a non-supporter of combustion it is a highly inflammable gas, igniting immediately on coming into contact with flame. As we hope to reproduce Dr. Richardson's lecture on this very interesting and important substance, we must not further anticipate. We will only add that the lecture was delivered before a crowded audience, and was illustrated by novel and remarkable experiments.

Letters from Mr. Gowlland, the Surgeon who attended Louis Bordier when an inmate of St. Mark's Hospital, from the House-Surgeon, and from the nurse of that institution, in reference to Bordier's alleged insanity, have been published by Mr. Tallack, of the Howard Association, in the *Morning Star*. Mr. Gowlland states that Bordier, during his sojourn in the Hospital, was in a state of extreme mental and physical depression, depending upon fistula. He adds, "Knowing the great despondency there is in these diseases of the rectum, and having seen in my practice cases of melancholia and suicidal mania as a result, I believe I have sufficient evidence in my experience to justify me in stating that, in my opinion, Louis Bordier was quite beside himself at the time he committed the act for which he has received sentence of death." The House-Surgeon and nurse both follow in the same track, and state in corroboration that Bordier was unusually violent at the time he inhaled chloroform and underwent an operation. Now this kind of evidence appears to us very dangerous. The theory that connects homicidal mania with fistula is certainly novel. If it be a true one, St. Mark's Hospital ought to be placed under the Commissioners of Lunacy, and no patient should be allowed to go from it except under surveillance. The simple question is, Did Bordier know that he was infringing the laws of the country in which he lived when he cut the throat of his paramour? If he did, he is amenable to those laws. At the time of the murder the man was no doubt miserably ill, wretched, and desponding, but his letter to his brother proves that he was perfectly aware of the reality of the crime he contemplated. Neither atheism, nor poverty, nor jealousy, nor bodily suffering, constitutes or necessarily produces insanity, and of these only was there any real evidence advanced. The tubercular disease of the lungs under which Bordier is said to be labouring adds another dark feature to the miserable picture. But, however we may pity the wretched man's condition, it must not be forgotten that he murdered his victim purely for a selfish reason, and that there is absolutely no evidence of insanity in the case besides his crime. His physical sufferings, want, and despair of being able to earn sustenance for himself and family, may be grounds on which to plead for mercy, but this is a very different thing from urging them as proofs of insanity, and on that ground demanding a pardon.

From the Protean disease to which the softer half of mankind are subject, Mr. Skey has now turned his own and the public attention to the maladies entailed by boat-racing on the section of the sterner sex known as gownsmen. We are not aware that Mr. Skey has said anything very new on the subject, and although what he has said is generally true, we shall be very much surprised if it produce any effect. The fact is, that all athletic exercises are attended with some amount of risk to life or limb, just as great mental exertion brings its own dangers to mental or bodily health; but it is just the disregard of these individual risks in the desire to excel which has distinguished, developed, and ennobled the higher races of mankind. Aquatic sports are natural to Englishmen, and everything that can be said against the University boat-race may be equally urged against every rowing regatta in the kingdom.

A Medical contemporary has lately thought it necessary to remind Medical teachers of their duty in reference to giving instruction in pathological anatomy and the art of making post-mortem examinations. For ourselves, we think, considering the amount of progress made by practical Medicine, and especially by therapeutics, that pathological anatomy has been of late years decidedly in the vanguard; that the present generation of teachers are open rather to a charge of neglecting the living for the dead—regarding disease as something to be studied in the dead-house, rather than cured or relieved at the bedside. Moreover, it is not just to hint that the art of making post-mortem examinations is not specially taught in our schools. As one example out of many to the contrary, we see from the prospectus of St. George's Hospital School that Dr. John Ogle especially lectures on the subject.

An attempt has lately been made to trump the discussion on the Pascal-Newton forgeries by proving that Shakspeare was familiar with the law of gravitation. What had he not observed? Are any of our readers aware that Rosalind, in the first act of "As you Like It," foreshadows the science of auscultation?

"But is there any else longs to see *this broken musick in his sides?* is there yet another dotes upon rib-breaking?"

The passage has puzzled all the commentators, but we think it may be fairly claimed as evidence that Shakespeare was quite aware of the physical signs of a fractured rib.

Dr. Vallance, of Stratford, has written a letter to the *Times* in answer to a very damaging description of the wards of the West Ham Workhouse, which was copied into that paper from the *Lancet*. It is sufficient to say that Dr. Vallance simply denies the truth of many statements made by the reporter of our contemporary. In reference to the alleged want of space in the lying-in ward, Dr. Vallance makes the unanswerable reply—"That of 577 women confined within its walls, not one has died."

Our readers will be glad to learn that the Rev. Henry Moule has received £500 from the Government of India as a recognition of the value of the dry-earth system of sewage. The letter addressed to him from the India House states that the adoption of the system in India has been general and satisfactory. We wish that we could state that this or a system founded on the same principle had been as generally adopted at home. It may not be possible to introduce earth sewage in our great cities, but it might be used in all smaller towns, villages, and country districts with equal advantage to land and water and to the inhabitants of both.

In consequence of an increasing number of out-patients, the Committee of Management of the Brompton Hospital for Consumption intend to elect another Assistant-Physician to that charity. The vacancy in the post of Physician to the Royal Free Hospital is also not yet filled up.

THE MURDERED GUARDSMAN.

As might have been expected from our report last week, McDonnell did not survive long after the time our notes were taken: he died on Friday. We are again indebted to Mr. Shoppee for notes of the post-mortem appearances found on and in the body. On examination, it was found that the bullet had passed straight through the chest, entering and leaving it in the fifth costal interspace. The ribs were not injured, and plugs of lymph closed both orifices of the wound. The cavity of the right pleura contained three pints of bloody fluid, with flakes of lymph and a few clots of blood floating in it. This having been removed, it was found that the lung was greatly collapsed, and covered with a layer of soft lymph. In some parts the lymph formed adhesions with the costal pleura, one being at the site of the wound. The lung

itself was gorged with blood, and the track of the ball was found to resemble black coagulated blood. The left lung was slightly congested at the base, and its pleural cavity contained a little fluid. The pericardium also contained fluid, about an ounce in quantity, and at its posterior portion an adhesion had formed between its two sides. In other respects the body was healthy, although it was enlarged by post-mortem emphysema. It will be observed that the reward offered for the discovery of the murderer has, since McDonnell's death, been increased from £100 to £300, with a pardon to any accomplice other than the man who fired the shot. This has wonderfully stimulated the police, but it has increased the general feeling of insecurity. One sign of the times we observed yesterday: the policemen in charge of the prison-vans were armed with cutlasses.

COURT-MARTIAL AND SENTENCE ON A MEDICAL OFFICER IN THE ARMY.

We have on many occasions in these columns advocated the cause of the Medical officers of the army and navy as a body, and in many instances we have been gratified by the opportunity of recording the worthy deeds of individual officers. It has been our desire—in which we hope we have not been unsuccessful—to give assurance to our brethren in the public services that, however isolated and remote may be the scene of their labours, they carry with them the sympathies, and may calculate on the support, of the Profession at home. We feel that we shall be acting in furtherance of this object and of the true interests of the public service in recording the following details and in making the remarks which we consider the subject to demand, although we shall not do so without pain to ourselves.

On June 4 last, by a general court-martial held at Saugor, in Central India, Staff Assistant-Surgeon R. Lindsay was tried and found guilty on charges which would be most discreditable to any officer in her Majesty's Army, but which, we hesitate not to say, are peculiarly so to a Medical officer. They were to the following effect:—Conduct unbecoming an officer and a gentleman—in having been drunk in the mess-house of the 1st Battalion of the 7th Royal Fusiliers; in having on the same occasion so violently assaulted a young officer of that regiment as to leave him in a state of insensibility; and in having refused to give Professional aid to the officer whom he had injured, and having uttered insulting and abusive expressions to another officer who had requested him to attend to the injured gentleman.

On all the charges the prisoner was found guilty. In the sentence will be found another instance of the anomalous nature of the administration of justice in military courts. The prisoner was sentenced to be severely reprimanded and to be placed at the foot of the list of Assistant-Surgeons. Thus, for an offence not only against military discipline, but against the Profession to which he belongs, this officer escapes with a reprimand and a deposition in the seniority list! Sir W. Mansfield, the Commander-in-Chief in India, ordered the court to re-assemble, to reconsider their sentence. The court adhered to it, and Sir William, in confirming the sentence and ordering the release of the prisoner and his return to duty, strongly expressed his disapproval of the utterly incommensurate nature of the sentence, in which opinion he is supported by Dr. Beatson, the Inspector-General of Hospitals, and principal Medical officer of her Majesty's British Army in India, who considers the sentence to be a "nullity."

From the particulars which we have received, but which we believe to be in the main correct, we cannot form any opinion as to the grounds on which the members of the court considered themselves justified in adhering to their original sentence. That these grounds were not sufficient, in the opinion of the Commander-in-Chief and the head of the British Army Medical Department in India, is quite evident. It is, however, far from our wish to display any undue severity towards the officer against whom such charges have been preferred. It is quite possible that there may have been a certain degree of exaggeration in them, and that the accused may not have been guilty of such serious transgression as they express, but may, notwithstanding, have so compromised himself as to merit the reprimand and loss of position to which he has been sentenced. The question, then, reduces itself to this: either the accused was guilty of the offences laid to his charge—in which case the sentence is inadequate—or, not being guilty on these charges in their entirety, he was guilty of part of them, or of other misconduct, meriting, in the opinion of the court, such a sentence as he has received: but in this case we consider that he ought to have been acquitted altogether, and that the framers of the charge should be held responsible for the miscarriage of justice.

CHOLERA IN ITALY.

We continue our report on the progress of cholera at Zurich. On September 25 the official returns showed that out of a population of 450,000 there had been up to the date of the returns 746 cases and 373 deaths. On the morning of the 25th there were seventeen fresh cases, and on the 26th fifteen new cases and nine deaths were reported. These returns show that the epidemic is on the wane, for on one of the first days of the outbreak (Sept. 19) there were as many as fifty-four cases and nineteen deaths. The other cantons have suffered also, but in a less degree. At Lucerne there was only one case, which, however, was fatal, the further extension of the disease being prevented by burning the clothes, bed, and bedding of the patient. There were four cases—all fatal, and all from Zurich—in the canton of Thurgoviad. At Baden there was one fatal case. At Lachen there was one case, but it was successfully treated. There were no cases at Geneva, Berne, or Lausanne—a Cholera Hospital having been established outside the last. There was one fatal case at Aarau, and there were three at Schindeligi, all traceable to Zurich. The limitation of the cholera to Zurich is due to the prompt and comprehensive measures of the Swiss authorities, who have left nothing undone in the form of sanitary cordons, public and private disinfection, and so forth, to stay the disease.

YELLOW FEVER IN JAMAICA.

By advices from Jamaica dated September 7, we are glad to see that the epidemic of yellow fever in the 84th Regiment at Newcastle has very much subsided, only one death from that disease having occurred during the past fortnight, and not one during the week ending September 6. Only two cases of much milder type had occurred, and the patients were considered to be progressing favourably when the mail left. Up Park Camp, Kingston, and Port Royal, continued free from yellow fever; but some cases were reported as having occurred in Spanish Town and Montago Bay among the civil population. Heavy rain had fallen at Newcastle and over the island generally.

FROM ABROAD.—DEATHS FROM ETHERISATION—IMMEDIATE ORGANISATION OF WOUNDS—STATISTICS OF THE PARIS HOSPITALS.

Some discussion having arisen a while ago concerning deaths after etherisation, the Medical Society of Lyons, the only city in Europe in which etherisation is exclusively resorted to in preference to chloroform, appointed a committee to examine into the question. The *Gazette Médicale de Lyon* has published the report in some of its recent numbers. The conclusions are—1. That since 1847 only seven duly authenticated and detailed cases of death can be reasonably attributed to the use of ether. 2. All these cases cannot be laid in the same degree to the charge of this agent. 3. Three of them,

relating to patients the subjects of great traumatic injuries, are especially questionable. 4. Of the seven cases five relate to patients severely attacked (*profondément atteints*), and the two others were patients in special conditions—pregnancy and digestion in the one, and hystero-neuropathy in the other. 5. In none of the cases was the death so sudden as it often is from chloroform. 6. Ether may indeed cause death, but it is far less dangerous than chloroform.

M. Abeille terminates a long memoir on "The Means of Obtaining the Immediate Organisation of Wounds, and, consequently, of Preventing most Traumatic Accidents," which he read at the Academy of Medicine, with the following conclusions:—1. The union of wounds by the first intention fails in the immense majority of cases, such failure exposing the patients, especially in Hospitals, to general accidents too frequently fatal; hence the nearly general abandonment of this method in the Hospitals of Paris. 2. It has been demonstrated that subcutaneous wounds undergo immediate organisation without passing through the phases of suppuration. This is due to their preservation from permanent contact with the air. 3. The method which I recommend places wounds in an analogous condition to those which undergo immediate organisation in the subcutaneous method. It moderates hyperæmia and opposes inflammation, imparting a certain laxity or softness to the tissues, which, in consequence, have not to undergo traction. It removes the sanics and serosities which exude from all wounds, however well united these may be—liquids which are in themselves injurious to the wounds, and become still more so when altered by contact with the air, especially vitiated air. 4. This method consists in (1) uniting as closely as possible the lips of the wound, so as to bring similar tissues into contact, after cleansing away all blood, discharges, or other foreign matters; (2) renewing the dressings as seldom as possible, as every three or four days, a single dressing sufficing in many cases; (3) keeping up a continuous or intermittent imbibition of cold water, according to the patient's sensations, always taking care that the apparatus remains moistened. There is nothing new in any of these separate directions, their combination alone professing to be original. 5. All wounds tend naturally to the regeneration of the tissues concerned, and the wounds should be placed as much as possible in conditions resembling those favourable to normal reparation. All things being equal, this method will be found the most efficacious in Hospitals and ambulances, and may be the means of preventing the accidents arising from the agglomeration of patients. 6. The great and fertile idea of a primary union of wounds was only the first step towards immediate organisation. Infrequent dressings and imbibitions of cold water constitute the necessary complement. 7. Infrequent dressings have hitherto only been employed for open wounds, but in this method they constitute an excellent means of obtaining immediate organisation. 8. Imbibition of cold water has been used only as a refrigerant to subdue inflammation, but it exerts a far more important agency in immediate organisation.

M. Husson, on laying before the Academy of Medicine the two first volumes of the "Medical Statistics of the Hospitals of Paris," gave some account of their origin and contents. He observed that it has been determined to utilise more effectually the returns concerning the 100,000 patients of the Paris Hospitals which annually come under the inspection of the administration, the presidency of which he so worthily fills. To this end a Medical committee has been formed, consisting of fourteen Hospital Physicians and Surgeons, with M. Grisolle as chairman. The committee has divided the returns into four sections or "bulletins," Medicine, Surgery, Midwifery, and venereal diseases. A fifth bulletin details the facts acquired at the patient's domicile concerning the mode of life, habitation, occupation, and family condition. These returns have been thus prepared for the last six years, and relate to nearly 660,000 bulletins. The first two volumes for the years 1861 and 1862 are now published, and are divided into six distinct parts—1. The General Hospitals; 2. Special Hospitals—viz., Midwifery and children, skin and venereal Hospitals; 3. *Maisons de retraite* and *hospices;* 4. The *maison de santé;* 5. A report on Surgical operations, prepared and classified by M. Broca. 6. General circumstances concerning the patients, as their age, domicile, and profession, as also the proportion of deaths in relation to the various kinds of affections, sex, and age.

As examples of some of the results arrived at, M. Husson relates that six diseases constitute one-half of the entire mortality met with in the general Hospitals — viz., phthisis, typhoid, variola, pneumonia, pleurisy, and bronchitis—3055 deaths taking place from these out of the 6280 deaths which occurred in 1862—*i.e.*, 48·65 per cent. There were in 1861 42 amputations of the thigh, with only 7 recoveries—*i.e.*, a mortality of 83·33 per cent. This was reduced in 1862 to 52·50 per cent. (19 recoveries in 40 amputations); but in 1863 it rose again to 62·50 per cent., there having been but 15 recoveries in 40 amputations. M. Husson hopes that the time is not distant when London, Vienna, Berlin, and the other great capitals will also contribute the combined return of their entire Hospital establishments.

"We shall then have a grand assemblage of facts precious for Medical science, whence Physicians, hygienists, and public administrators will derive enlightenment which will lead to improvement in the art of healing and amelioration of the material conditions of the population."

FURTHER NOTES ON WINE.

By the Author of "Report on Cheap Wines."

(Continued from page 122, vol. I., 1867.)

MEDICAL INTEREST IN THE QUESTION OF DUTIES ON WINE—INIQUITY OF AN EQUAL DUTY ON PURE AND ON FORTIFIED WINE—WASTEFULNESS OF THE PROCESS OF VINAGE—THE WORST RELAPSE INTO PROTECTIONISM—AUSTRALIAN AND SOUTH OF FRANCE WINE—COBDEN ON WINE.

It is generally agreed that a wine which is pure and well made is also a wholesome wine, and that an ill-made wine is unwholesome. By a well-made wine we understand one in which all the sugar has been converted into alcohol, and all the nitrogenous ferment has been exhausted and got rid of. If these conditions be present, there is no fear but that the wine will keep, and that it will agree with the human stomach. It may not be a strong wine, nor a fine wine; but yet it will keep and be wholesome. On the other hand, an ill-made wine will not keep unless fortified by the addition of a quantity of alcohol sufficient to arrest the further fermentative process. That such wines so fortified are unwholesome is notorious, and modern research has shown that one disease in particular—the gout—is not to be ascribed to alcoholic drinks simply as such, but to such alcoholic drinks as are imperfectly decomposed and retain in their composition undecomposed sugar and unexhausted ferment.(a)

Alcohol has plenty of sins to answer for. It produces dropsy, delirium tremens, disease of the brain, liver, and kidneys. But, to produce *gout*, it is not alcohol *per se*, but in combination with sugar and ferment, that is needed. Of such combinations, sweet ale, sweet cider, and sweet wine are well-known examples, provided their sweetness be the result of arrested fermentation. It is the interest, then, of the Physician, no less than of the politician, we will not say to *discourage*, but certainly not to *encourage*, the production of imperfectly fermented liquors by giving them artificial protection in the shape of exemption from their fair share of customs or excise duty. The most popular example of an ill-made and unwholesome wine is modern port. In fact, it does not deserve the name of wine, but rather of a *liqueur;* and so the French call

(a) This is clearly expressed in Professor Charcot's "Lecture on Gout," reported in the *Medical Times and Gazette*, May 4, 1867.

it—*i.e.*, spirituous liquid flavoured with grape-juice and elderberries. One of the first operations performed by the port wine maker is to add brandy in the proportion of 25 gallons to the pipe in order to check fermentation, to prevent the conversion of the sugar into alcohol—in other words, to prevent the liquid from being a perfect wine. Further additions of brandy are made to such an extent that out of 115 gallons of port wine at least 39 liquid gallons consist of spirit, a spirit which is stronger than proof to such a degree that the 39 gallons are equal to about 50 of proof spirit. The ordinary strength of port wine prepared according to the method pursued in Portugal till the year 1865 was equal to about 42° of proof spirit; and it was asserted by the manufacturers and vendors of the article that such strength was necessary to the very constitution of port wine, and, in particular, that no other port wine was fit for the English market (which means the English stomach), and that it was absurd to have port wine of a less strength.(b)

Sherry also, and particularly modern sherry, is a liqueur or alcoholic liquid, diluted with half-fermented grape-juice, and sweetened with a concentrated decoction of the same.

But, considering that wines containing over 26 per cent. of proof spirit now pay a duty of half a crown per gallon in England, whereas wines under that standard pay only one shilling per gallon, it cannot be wondered at that the port and sherry merchants are straining every nerve to get the duty equalised to a uniform rate of one shilling a gallon on all liquids bearing the name of "wine." They assert that port and sherry are not port and sherry without the addition of adventitious spirit; but in order to concede something they are willing to admit that these liquids need not contain more than 34 per cent., and they are keeping up an agitation n favour of a shilling duty on all "wines" having not more than that strength. Whilst the port and sherry merchants, on their side, are eagerly pressing this question, they are likely to be aided by the manufacturing interest, on the plea that, if we relax our Customs' duty on behalf of Portuguese "wines," the Portuguese will relax their tariff on English manufactures, and that thus English goods may be largely exported to Portugal, partly for sale among the natives, and partly for the purpose of being smuggled into Spain. I hope that this project will receive the condemnation of my readers as being hostile to the health and morals of the community, and as being in itself a return to one of the worst vices of Protectionism under the pretence of extension of commerce; for it really means this—that, whereas we tax raw spirit heavily—viz., at the rate of half a guinea a gallon—we are willing to admit it at the rate of a shilling a gallon if it comes from the Portuguese, provided they will take our manufactures. If this is fairly thought out, it will be found so mean and unstatesmanlike a proceeding that we hope its inherent viciousness will be enough to blight it.

Free trade means this, that we encourage human industry by buying freely in the cheapest market, believing that where any given article can be produced most cheaply there it will be produced in greatest perfection and abundance; and that we refuse to tax the products of one man's industry in order to keep him out of our market, or to exempt another man's products from tax in order that he may be able to sell at a lower price. Why, we may ask, if distilled spirit is to contribute to our revenue, should it not contribute fairly? Why should it be highly taxed in the shape of the gin which the labouring man drinks, and taxed lightly if it comes in the shape of the tradesman's port and sherry? If we are to sacrifice a certain portion of the revenue from alcohol in order that the Manchester people may get trading profits from the Portuguese, is that not equivalent to a protection to the industry of Manchester at the expense of the community at large?

(b) All this is to be found in full detail in "Report on Cheap Wine," p. 133, and is confirmed by the late report of Mr. Lytton, H.M. Secretary of Legation at Lisbon.

The sentiments of the best-informed French wine cultivators on the addition of alcohol to wine deserve to be noted as showing that they are far-sighted enough to see the economy and advantage of making their wines perfect and wholesome. It is well known that out of the eighty-nine departments of France, seventy-eight produce wine; and that of these seventy-eight, the seven which produce the coarsest and least agreeable wines, enjoyed, up to the year 1865, the exceptional privilege of employing alcohol to fortify their wines up to 18 per cent. (of absolute alcohol, or about double that of proof spirit), without paying duty on this alcohol. This privilege was withdrawn in 1865, and restricted to the use of brandy made on the spot by distillation of the wine produced there. There is a very interesting and well-reasoned pamphlet on "Le Vinage" (as the operation of fortifying wine is called in France), by M. E. Terrel des Chênes, in which he shows clearly that the privilege of fortifying wine, and any encouragement given by Government thereto, is a fraud upon the honest cultivator; that it is a wasteful act, and tends to impoverish the nation; and that it acts injuriously upon the health and morals of the vendor and consumer. M. Terrel des Chênes argues, in the first place, that the alcohol *d'industrie*, made, as it may be, from beetroot, spoiled grain, diseased potatoes, and other refuse, is in reality a vile adulteration of wine, and that it ought to be as illegal to sell such wine without declaring its composition to the purchaser as it is to sell coffee adulterated with roast corn or chicory as if pure coffee. He states that natural wine never exceeds in strength 15 per cent. of absolute alcohol. In the year 1865, which produced wines of greater alcoholic strength in France than was ever before known, there were no wines which exceeded the rate of 14·4 per cent. of alcohol. But, singularly enough, the seven departments of the South—viz., Var, Bouches du Rhône, Gard, l'Hérault, Tarn, Aude, and the Pyrénées Orientales—which enjoyed this pernicious privilege, were allowed to fortify their wine up to 18 per cent. Hence there were to be found in France two kinds of wine—namely, the pure and the fortified, the latter virtually enjoying protection, and enabling the vendor of it to effect another falsification in the shape of dilution down to the natural standard, and so to undersell his more honest neighbour. But it is not these considerations alone which show the public injury caused by the fortification of wine, because this practice is, in truth, a mere palliative of a wasteful and lazy method of manufacture. The wine manufacturers of these seven formerly privileged departments, which form the sunniest and most fertile portion of La Belle France, complain that they cannot make wine that will keep, whereas the wine-makers of Burgundy and Bordeaux, and the east and centre of France, in rainier zones, and with less sun, make no such complaint. They allege the necessity of fortification for these two opposite and inconsistent reasons—First, because some of their wines contain too much sugar; and, second, because others contain too little. M. Terrel des Chênes shows that these are but the excuses for careless cultivation and bad manipulation; that the object of the wine-growers seems to be to make quantity, not quality, and to effect by "vinage" that stability which ought to have been attained by perfection of manufacture. He insists on the wastefulness of the process; for since many at least of the virtues of wine depend on alcohol, it surely is a waste to stop fermentation prematurely to prevent the wine from developing all the alcohol proper to it, and making up the deficiency by the unwholesome alcohol *d'industrie*. The wine is prevented from developing its own alcohol, and the lack is supplied by beetroot or potato spirit. Grape juice rich in sugar ought to be fermented till the sugar is split into alcohol, or till the ferment is exhausted, even though the wine be left sweet. As for the juice too poor in sugar, it comes from vineyards neglected, unpruned, and allowed to run into copses, where a rank and luxuriant foliage protects the grapes from the sun. Protection to such wine is

protection to sloth. If the wines of the South of France were well made, not only would there be a larger quantity fit for the wholesome alimentation of the home population and for exportation, but much of the wine which is now distilled, because fit for nothing else, would be used as wine, and thus there would be greater scope for the employment of the spirit distilled from beetroot and other such substances for the purposes for which such spirit is legitimately used.

If Customs and Excise duties are to be levied on equitable and philosophical principles, the alcohol employed to fortify wine ought to be subject to a double tax—not only for itself, but for the loss of the alcohol effected by checking fermentation. A most respected, but mistaken wine-grower in Australia speaks clearly on this point :—

"The addition," he says, "at the proper time of a little strong spirit not only adds nothing to the amount which would have been produced if all the sugar had been split up, but in very many instances it prevents the wine from becoming spirituous in a high degree! As, therefore, we cannot have here generally Johannisberg and Sauterne and Burgundy in approximate perfection, we must turn our attention to perfecting wines of the Portuguese, Spanish, and Italian character. And when we have reached to the achievement of Lisbon sweet and Lisbon dry and Bucellas in whites, and to colures and ports in reds, we may be very well satisfied even if 3 per cent. of brandy were used to save a portion of the saccharine matter."

The same writer says :—

"In hot climates you never can produce wine with the perfume peculiar to those of colder regions. Nature has fixed the impassable barrier. If you are to have Sauterne or Chablis, you must have all the other conditions, especially slow, long-continued fermentation at a low temperature ; and in this case there is no demand for any addition of extraneous spirit, for it would almost certainly destroy or vitiate the so much prized bouquet."

The practice of "vinage," then, not only stops the conversion of sugar into alcohol, but prevents the formation of those ethers which form the peculiar bouquet or perfume of wine and constitute its greatest attraction to the intellectual man, and they further communicate to it that hot and acrid taste, that burning in the throat, so well known to those who have ever tasted cheap sherry, and which enables the connoisseur to detect the addition of ardent spirits to wine, in however small a quantity.

I may conclude by impressing on my Medical readers the importance of knowing the natural history of wine and its properties, and of discouraging the use of all imperfectly fermented and fortified wines. First, because such wines notoriously produce gout ; secondly, because they are vehicles for the use of ardent spirits ; and thirdly, because they displace those natural and well-fermented drinks which exhilarate the brain without injuring the liver, and promote health and temperance alike. M. Terrel des Chênes quotes to the following effect from a speech of Cobden's, which I hope that great man's disciples will not ignore in any further alterations of the wine duties.

"Every nation except the English considers the French wines the best in the world. We alone take adulterated wines in preference to them. Those of us who can get them prefer those brutalising and inflammatory mixtures called port and sherry. A friend of mine had lately a fancy for seeking materials amongst our national ballads, for a collection of drinking songs. He told me that he found that all these songs were in honour of French wines, Champagne, Burgundy, or Bordeaux. They were all old songs written in the times when our forefathers drank or preferred the French wines ; but from the time when they could no longer obtain these wines, drinking songs ceased. My friend arrived at the conclusion that when the English used to drink French wine, it made them sing and be merry ; but when they began to drink port and sherry, these made them stupid and brutal."

Let me add one quotation from a paper by the Rev. Dr. Bleasdale, read before the Royal Society of Victoria. His subject is the wine of Australia, abundance of which he believes to be the real cure for intemperance :—

"In the interests of health and morality and cheerful and happy homes, I record my heartfelt wish that I may live to see the day when even the humblest labourer, at the close of his hot day's toil, will stroll into our fine parks and public gardens, and there, with his happy family around him, enjoy his hour of relaxation, and drink his bottle of wholesome wine, at the cost of a few pence, without the reproach of extravagance or the danger of intoxication. In fact, I hope and wish to see the Victorians a healthy, sober, jolly, wine-drinking population."

THE HEALTH SECTION OF THE SOCIAL SCIENCE CONGRESS AT BELFAST.

Communicated by C. BAYLIS, M.D.,
Health Officer of Birkenhead.

The eleventh annual meeting of the Social Science Congress took place this year at Belfast during the week ending the 25th ult. ; and as this is the only public body in the kingdom which, by its Health Section, investigates, records, and discusses sanitary science and its application to our large towns, a brief notice of its labours may prove interesting. The papers read in this department did not embrace the variety of topics treated of last year at Manchester, nor did so many amateurs take part in the discussions which followed ; but the results were probably on that account all the more sound and practical.

The inquiries selected by its Council for the special attention of the Health Section this year were as follows, viz. :—

1. What measures are necessary to secure efficiency and uniformity in the working of the sanitary laws throughout the kingdom ?

2 In what respects do the registration systems of England, Ireland, and Scotland need improvement ? and is it desirable that they should be assimilated ?

3. In what form, and to what extent, is it desirable that the public should provide means for the recreation of the working classes ?

The following subjects were also suggested for discussion, viz. :—

1. Improvement of dwellings of the labouring class.
2. The supply of trained nurses.
3. Town and domestic water supply.
4. Infantile mortality.

In the following out of this programme papers were read on Thursday by Mr. W. H. Michael on "Health Legislation," by Dr. R. Elliott on "Health," and by Mr. Caulfield on "Sewage Filtration." From the views enunciated by these gentlemen, and the long discussion which took place, the following conclusions were arrived at :—1st. That the present sanitary legislation should be made uniform for the three kingdoms, and the various Acts consolidated ; that a Ministry of Public Health be appointed to direct local action, and serve as a court of appeal ; that a Medical officer be appointed for each district, and in every large town ; that health bodies should also initiate and undertake public improvements, direct private ones, and prevent overcrowding ; lastly, with reference to the utilisation of sewage scheme, its filtration on applying it to land was dwelt upon as a requirement for preventing possible nuisance.

On Friday papers were read by Professor Redfern on "The Registration Systems of England, Ireland, and Scotland," and by Mr. A. Ransome on "The Registration of Disease and Death." From these it appears that in Ireland relatives and others are not, as in England and Scotland, obliged to register deaths before burial ; that in England 17 per cent. of the whole number registered gives no clue to the cause of death, and that of the remainder a large proportion are only certified by incompetent persons ; that in none of the three countries is the registration of births compulsory, or any provision made for the registration of stillborn children. The meeting also seemed agreed as to the propriety of appointing Medical registrars, of assimilating the registration systems of the three countries, of making that of births compulsory, and of having in addition a registration of the numbers attacked by the different diseases, to enable us to extend our knowledge and means of prevention.

A long discussion was originated on Saturday by Dr. Lankester "On Dietaries of Prisons and Workhouses," who contended that society had no right to treat paupers or to punish criminals by confining their food within limits which might in any way affect their health, and that paupers especially ought to be well nourished rather than otherwise; he advocated this especially for children and old people, giving the latter their beer and tobacco when they had been long accustomed to it. These views were combated chiefly on political grounds, but the meeting thought that some guarantee against injury existed in the fact that the Surgeons of workhouses and gaols are in all cases authorised to order such food and stimulants as may appear requisite for those coming under their care. Two papers were also read, one "On Infant Mortality," and one "On the Laws of Belgium for Illegitimates and Foundlings." Neither caused much discussion, but a curious fact was stated by Dr. Morris, of Baltimore, that the greatest difficulty was experienced in the climate of that part of America in getting children alive through the heat of their second year's summer, which always caused a disproportionate mortality.

Monday's sitting served for the papers of Dr. Hardwick, Health Officer of Paddington, "On Providing Means of Recreation for the Working Classes," and of Miss B. Corlett, on providing the same for children. It was contended in these papers that all existing means, however useful, were totally inefficient for the requirements of our population, and that a physical deterioration of the community was continuously taking place.

Dr. Hardwick urged that it should be made imperative for a gymnasium to be attached to every school, and that military drill, swimming, and athletic exercises form an essential part of education. For adults he would also provide public and easily accessible gymnasia, public rooms for exhibitions, meetings, and other purposes; local museums, promenades, and parks with refreshment places for the visitors. With respect to the Sunday use of these, he first quoted the authority of the Bishop of Oxford—"that children ought to be allowed to play after Sunday-school teaching;" and then contended that a totally different view of the Sunday generally must be taken from that held by many religious and well-meaning persons, if our labouring population were to be really benefited. He did not see why a rate of 1d. in the pound might not enable many of these objects to be attained.

Miss B. Corlett, in her paper, specially advocated the provision of enclosed playgrounds for the very young; and some speakers urged that, to be useful, they should be provided at the end of every street in all the confined parts of a town; others thought proper yards should be found behind every dwelling, and that the poorer the inhabitants of a street so much the greater width and space should it possess.

Mrs. Nourse's paper, "On Cottage and Sanitary Improvements," was then read, as also one by the Rev. W. Mackilwain "On Methyomania" (Dipsomania), in which he contended that Government asylums ought to be provided for such cases, which he argued were rarely, if ever, curable. This last opinion seemed to be universally concurred in, but considerable difficulty was experienced in pointing out symptoms indicative of the period when confinement became justifiable and necessary. The last day of the Health Section's sitting was occupied with an admirable and exhaustive paper on the progress of sanitary work in Belfast, and its present sanitary condition, which was followed by a long and able discussion; but as it referred to matters chiefly of local interest, any full notice may be omitted. From this paper, however, among numerous other facts, we learn that Belfast, including Ballymacarett, with a population of say 142,000, has 987 streets, of which 255 are unpaved, and 336 neither drained nor sewered. These streets contain 25,492 houses (1086 not being dwellings), of which 4461 are without back yards, 4856 without ashpits, and 6127 have no water service. After this account it was not surprising that Mr. J. Kennedy, the author of the next paper, should have to state that the death-rate of Belfast was one in thirty-three, or slightly more than thirty in the 1000, and even this high rate, he thought, was understated, owing to imperfect registration. It is only fair to add that the authorities are exerting themselves to improve this low sanitary condition.

The concluding day was also signalised by an address from Sir James Simpson on "Public Health," and he gave his high authority for proceeding in sanitary matters much further than has yet been publicly proposed. Among other things, he asserts that cow-houses and stables should be altogether banished from towns, or kept only under very close restrictions, and instanced a patient of his own, in erysipelas, living in a magnificent street in Edinburgh, but whose back windows overlooked stables and manure-pits, which he considered an efficient element in producing her illness. Pure air and water, sufficient food and warmth, recreation and exercise were the simple and necessary conditions of health, and, most of these being attainable by wise legistative enactments, a heavy responsibility lies on the nation and government which neglects or defers them.

It will thus be seen that the late meeting at Belfast has not been an unimportant one, or that the Congress has lost its strong claim to the support of public bodies and philanthropists throughout the country, the more especially as it forms so popular a school for sanitary science, and gives the much-needed opportunity of collecting and comparing all that is being done in the various towns and districts to diminish disease and the death-rate, and thus augment human life and happiness.

OPENING OF THE MEDICAL SCHOOLS.

(Continued from page 377)

ST. MARY'S HOSPITAL.

The Introductory Lecture was delivered by Dr. Broadbent, Senior Assistant-Physician and Lecturer on Physiology. The lecturer, after referring to the fact that he was the first of the second generation of St. Mary's Hospital to occupy the position in which he stood, and speaking of the high degree of estimation in which the Hospital and School had been raised by those who, sixteen years before, had come together to form the staff—mentioning, among other things, the recent elevation of Dr. Alderson to the office of President of the College of Physicians—proceeded to address the students. One of themselves almost, his sole ambition would be to say something which might be useful to them, to draw from his brief experience some indications which might guide them, or to place before them some motive which might influence them.

The relation upon which they were about to enter he described as full of consequence to both sides — to the lecturers, inasmuch as on the well-doing of the students their reputation as teachers and much of their inward satisfaction would depend; to the students, inasmuch as the duration and character of their association with the lecturers, and the time of life at which it took place, would render the influence of the latter upon their intellectual character both powerful and lasting. He pointed these remarks by an allusion to what he called "Sibson fever," which they were liable to contract in the wards, and which, when the acute stage had passed, would still leave its effects in an entire modification of the mental constitution. But great as the influence, and, therefore, great as the responsibility of the teachers might be, the issue rested mainly with the students, and the epoch was an important one in their lives. Their career in the school would shadow forth in some sort their career in life, though not with absolute certitude, for time and chance happen not to all alike, and qualities might have different value there and in the battle of life.

He showed that the teachers, though directly responsible only for the Professional training and not for the moral character of the students, could not be indifferent to this. In the case of a Medical man, personal honour and moral rectitude should form the basis of all other qualifications. The man and the Profession could not be separated. The man ought to be clean, as well as his robe spotless.

This justified, or rather compelled him to warn them against the dangers to which they were exposed, which he did chiefly by directing their attention upon themselves, the dangers consisting not merely in the temptations of large towns, but in the disposition of the mind; a temptation being only an opportunity offered to existing tendencies to evil. Pursuing this idea, he sketched some of the varied motives which might be supposed to be present to the minds of young men at their entering a Medical School, and hinted briefly at the consequences of a career of dissipation. On the indolent he urged that not their own success and reputation alone depended on the next few years, but the lives and health of their fellow-men. Years hence they might stand at the bedside of one for whose life they would willingly lay down their own; on their acting rightly and promptly that life might hang, and right and prompt action then depended on their care and diligence now.

He further described the present as a time full of inconveniences for a half-educated Medical man on account of the more general cultivation of science, referring also to homœopathy. To any whose convictions might be shaken, he recommended the perusal of the homœopathic Medical periodicals for a time. He described the professors of this faith as great in wordy controversy, but, when they took to relating cases, a spectacle for gods and men.

After showing that the entry at the Medical School, as a new start in life, furnished an opportunity of correcting faults of character, he invited the students to look with him at the Profession—not asking what it would give them in wealth and position—not comparing it grudgingly with other professions, but if it were worthy of them as men—if it commanded their respect and offered employment for their intellectual powers; and he showed that it gave scope for the widest benevolence and work for the highest intellect.

The lecturer then proceeded to sketch the general course of a professional training, and the two stages into which it is naturally divided. Physiology he described as the very pivot of a Medical education, not merely because the healthy state must be taken as a standard, but that morbid processes are only modifications of normal actions. He recommended that anatomy should be studied physiologically as well as practically—*i.e.*, with reference to the functions and use of each part—and this not merely in the case of organs like the brain and heart, but throughout the body. The word-knowledge obtained only from books should be called "anatology," not anatomy, which implied the use of the scalpel.

Chemistry did not take the hold it ought to have on the attention of students—in part probably the fault of the text-books, which made so much of nomenclature, and hastened to arrive at the details of preparation and properties, passing over the grand generalisations of the science. Chemistry was required at every step of physiological investigations, and led up to the very portals of the mystery of life.

Interposed were remarks on various points. With respect to attendance on lectures, ideas as to an excessive aggregate would not justify neglect of particular courses. Their office in Medical teaching was rather to inform the judgment than to store the memory, and the students should not sit down to them in utter ignorance of the subjects. Note-taking was strongly recommended, especially in the lectures on Medicine and Surgery.

One book in each subject should be thoroughly mastered, after which others might be read, and the new information would blend with and strengthen that already acquired, like woof thrown into the warp. System was the secret of the economical employment of time, and also an excellent mental discipline. As a basis for a plan, a day's work was indicated.

Proceeding to the subject of the second stage, pathology and therapeutics, they were pursued in three ways—by attendance on lectures, by following the practice of the Physicians and Surgeons in the Hospital, and by individual work in the wards—the last introducing a very important element.

Speaking first of the lectures and practice, the lecturer said that the different treatment the students would see carried out by different Physicians might, according to their turn of mind, lead to discouragement or to scepticism; but, with increased knowledge, many apparent discrepancies would disappear. The same principle might underlie diverse practice, and in an organism so complex as the human frame the same end might be compassed in various ways. A set of inflexible rules might have been more agreeable to some, but theirs was a higher function than the mere application of some dogma.

They might, indeed, be congratulated on the time at which they were entering the Profession; for though there was not much to boast of in the state of therapeutics, a period of progress had been inaugurated. Therapeutics must necessarily be the last crowning achievement of scientific Medicine; for as physiology could only advance as chemistry led, and pathology must follow physiology, so therapeutics could only aspire to a scientific position when not only morbid anatomy, but morbid processes, were well understood. This stage had been reached, and now chemistry and experiment were not only finding new remedies, but showing how old ones acted, and bringing specifics down into a place in rational Medicine. There must always be some relation between the organism and the substance administered, on which the effect depended. The general establishment of this relation would be an epoch in therapeutics. Coming, then, to the most important part of a Medical training—the training given in the wards to themselves by the students—it was to be regretted that just at this point, when the teachers would most like to put pressure on them, they most easily eluded it; and though students were more alive to the importance of this part of their education, it was still much neglected. And yet they could not fail to see that neglect here stultified all their previous work. It would take years of painful toil to redeem the loss of the last few months of their student days.

In case-taking, the first point was system, more necessary here than in any previous work; this would be found indicated in the instruction drawn up for the clinical clerks. They must cultivate exactness in observation and precision in description, and distinguish always between an observation and an inference; letting their cases be faithful records of phenomena, not a mere history of opinions—a picture of what was before their eyes, not a transcript of what passed in their minds. Their first cases would, it is true, be lengthened and laboured, but the discipline would be invaluable. As with the early attempts of a young artist, the picture would be crowded with detail, and perhaps crude in aspect; but later, they would acquire the facility of a master.

They should always form an independent diagnosis and write it down, especially when there would be an opportunity of testing its correctness by a post-mortem examination. Unless committed to writing, it would be easy to persuade themselves that their diagnosis had been correct when it had only been indefinite.

After referring to the thermometer and sphygmograph, the "instruments of precision" of Medicine, and mentioning some of the points upon which he had not time to enter at length, he said that in his address he had not to set before them an unattainable ideal, but had endeavoured to give advice which every one, whatever his mental calibre or future field of work, might apply to himself—whatever work they had to do, to do it well. And his concluding observations as to the spirit in which they should enter on the practice of their Profession would have an application equally general.

They would enter a household at all times and seasons; when anxiety had overthrown caution, or gratitude had overflowed reticence, its inner life would be exposed to their view, and in many ways they would become the repositories of secrets involving the honour and happiness of individuals and families. No one would be so base as to use them for his profit; but, further, peculiar delicacy was required of them. They must shut their eyes to everything which did not concern the safety of the patients, and repress imprudent revelations. Even the small matters which under other circumstances might be thought subject of harmless gossip must be regarded as under the seal of confession.

Again we come into relation with our fellow-man in his hour of weakness. Disarmed by personal suffering or domestic affliction, he lies defenceless under our eyes. The smaller aims and objects which give the colour to his outward life are submerged; the lesser motives and passions which inspire his daily actions are in abeyance; the deeper strata of the character are bared—the real man stands before us in his true dimensions; and what noble self-abnegation do we sometimes see, and what hideous selfishness! What unsuspected qualities of mind and heart come out, and how many apparent virtues and graces of character are found to be fictitious! To few is it given to see as we do human nature in its majesty and in its meanness.

What attitude of mind, then, becomes us who thus are privileged to look into the fire of the Great Refiner? Is it not that of humility and charity? We of all others should know ourselves, and, knowing ourselves, we shall feel that in us there dwells all too little of what is exalted—all too much of what is mean. We shall be ready to see moral greatness wherever it exists, and give it our homage and admiration, and we shall look on littleness with pity, not with contempt. I think it is Oliver Wendell Holmes, one of our own Profession, who says, "When you see *into* a man, you despise him; when you see *through* him, you do so no longer." Failings—yes, vices—are often the result of a faulty organisation or unpropitious circumstances. Cherish always, then, a reverence for man as man, however abject the individual. But not in sickness only and pain. In nature's last extremity we are called to stand and look on, and the approach of death is impressive even when the mind is confused by delirium or obscured by coma; still more when it is awake and clear. One man meets death in the spirit of the old warrior who bade them array him in complete armour and place him upright on his feet. He looks the last enemy in the face with undaunted eyes. Another so fears his approach, that when his hand is on every

limb, and his mark on every feature, he dare not admit to himself the truth, and his last breath is a whispered "to-morrow." One takes what to him is a great "leap in the dark" without quailing, another with fearful misgivings, while for others, happily, it is no unknown bourne to which they go, but a long looked-for haven of peace and joy.

Are these solemn lessons to be lightly regarded by us because more than once repeated? Shall it be said truly of us that we are familiar with pain and death, and insensible to suffering and sorrow? Familiar, yes! Insensible, no! We must keep our minds unperturbed and calm in the presence even of the fiercest agony; but it need not be that sympathy is extinguished within us. If death is, in our experience, an everyday event, we need not therefore forget that to the dying man whose flagging pulse we tell, it is the supreme moment when all alone he goes to meet his God; to his friends the tearing asunder of ties close woven round the heart; and though we must, as men of science, note with cool eye the throes of expiring nature, and register the phenomena of dissolution, we need not therefore forget that it is the passing away of a human soul.

Keep alive, then, sympathy for suffering and tenderness for weakness, and never steel your souls against the wholesome sentiment of awe.

And, gentlemen, we owe it to our Profession to contribute so far as in us lies to the common stock of knowledge. The particular stone we have picked up may be small, and the cairn thrown up by the thousands who have passed by the same way has reached the dimensions of a mountain. Our pebble may be indistinguishable on the heap, but, so it be our very own, let us add it.

We are leaves on a stately tree; we cannot all be differentiated into flowers and fruit, but each of us is responsible for the few fibres of wood he must lay down before he drops off, and it is only by the healthy action of every leaf that the vigour and symmetry of the trunk are maintained.

May we all, in the autumn of our lives, enjoy the respect and regard earned by an upright and honourable career! May we have the inward consciousness of duty faithfully discharged, and may our work, then near its end, receive the approval of God!

ST. THOMAS'S HOSPITAL.

The Introductory Lecture was delivered by Samuel Solly, Esq., F.R.S. He said: "About forty years ago, my young friends, I commenced the study of my Profession in this time-honoured School of St. Thomas's Hospital. I began my journey with high hopes and lofty aspirations; some have been crushed, some crumbled into dust, some faded away, and some realised; but with all this, I would, if I could, relive this portion of my life and start again with hopefulness in the same career. As travellers into this new country, you will not, I am sure, despise the advice of an old guide. I walked this path with joy, but now look back with regret that my time had not been better spent, and that many golden opportunities of reaping sound fruit have been lost for ever. I have likened you to travellers, but this is too tame a simile. Are you not rather warriors, buckling on your armour to fight a noble fight for Professional existence? Do not deceive yourselves. He who enters the Medical Profession must be prepared for a firm and uninterrupted struggle for existence. Having once enlisted, you are no longer your own master. You have undertaken duties far higher than any accepted by mortal man, excepting, perhaps, those of the minister of religion. In all truth, then, may I say, 'A sacred burden is the life ye bear.' Look on it, lift it, bear it solemnly; stand up, walk beneath it steadfastly.

> "'Fail not for sorrow, falter not for sin,
> But onward, upward, till the goal ye win;
> God guide ye, God guard ye, on your way,
> Young pilgrim warriors who set forth this day.'

Oh, what a solemn truth is this! 'A sacred burden is the life ye bear.' Life is not a toy given to amuse us, it is not a treasure to be spent in self-gratification; it is a burden to be borne solemnly and steadfastly. If this is a truth applicable to all humanity, how fearfully true it is when applied to the young pilgrim in the land of Medicine! It insists, and insists truly, that as human beings we are responsible to our Creator for the way in which we utilise this privilege. 'Our life is as a shadow, and it soon passeth away.' To prolong this short life is the object of the science which you have come here this day to study. The Creator has, to a certain extent, permitted us to hold in our hands the cords of life and death, to loose or bind. We cannot restore life as the first and great Physician did, but we are endowed, under Divine Providence, with the godlike power of preserving it. Well might the greatest of modern poets say—

> "'O God! it is a fearful thing
> To see the human soul take wing—
> In any shape, in any mood.
> I have seen it rushing forth in blood;
> I have seen it, on the breaking ocean,
> Strive with a swollen convulsive motion;
> I have seen it on the ghastly bed
> Of sin delirious with its dread.'

Any one who has witnessed death will acknowledge the truth of this vivid picture, and no Medical man can deny that the pain of such a scene is fearfully heightened if he is conscious that that flight has been caused by his ignorance or his neglect, and if he is compelled to exclaim inwardly, in the agony of his soul—'Oh, if I had only done my duty when I was a student, this death might have been averted.' Do not think, my young friends, that this picture is overdrawn or too highly coloured. Every conscientious Medical man who has arrived at my time of life will allow the truth of it; and happy is he who can say, when he closes the eyes of his patient, 'I have done my duty, and used all those means which the science of our Profession, to the best of my belief, has accorded to us.' We are all fallible, and the best of us are poor erring mortals; but some do their work as students (and we are all students, or ought to be), earnestly, zealously, and truthfully. Let us, then, consider this responsibility, and the way in which we are the most likely to be able to perform those duties in accordance with our high aspirations. When we first commence our studies, we are, I fear, most of us, thoughtless, giddy, self-indulgent creatures. When we conclude our studies at the Hospital and launch our bark upon the troubled sea of actual Professional life, we ought to be serious, thoughtful, and instructed men. A few short years ought to see this change in you. In these few short years, how is this to be accomplished? The science of Medicine and Surgery must be founded on a knowledge of the way in which the vital functions are carried on in a state of health. You must first study the construction of the mechanism by which these functions are carried on. In other words, you must begin with anatomy, and that anatomy can only be sufficiently learned by dissecting the dead body. All reading and studying of plates is a delusion and a snare; it will be of no service to you when you require your anatomy to save life. It will vanish in the hour of difficulty; it will desert you in the hour of need. You must learn anatomy practically. The very mention of practical anatomy recalls to my mind the name of one of its most able votaries—I mean that of Mr. George Rainy. His reputation is not limited to this country; it is world-wide. Most fortunate are we in being able to retain the services of such a true philosopher. His knowledge is only equalled by his consummate skill in imparting it and his unrivalled industry in the performance of those duties which he so skilfully, and so much to our benefit, consents to perform. Industry on your part, and serious unmistakeable attention to your studies, are the only avenues to his heart. Following, and founded on a knowledge of, practical anatomy, ought to be the study of physiology—the science of life. If, as I have said, the study of the machinery of this frail body is marvellously interesting, what shall I say of that science which has for its object the discovery of the laws by which that machinery is worked? The study of physiology you will find especially interesting, as proving design and contrivance emanating from Omniscience. 'The necessity of contrivance for the accomplishment of purpose,' says the Duke of Argyll, in his most interesting work, the 'Reign of Law,' 'arises out of the immutability of natural forces. They must be conformed to and obeyed; therefore, when they do not serve our purpose directly, they can only be made to serve it by ingenuity and contrivance. Nothing is more certain than that the whole order of Nature is one vast system of contrivance. And what is contrivance but that kind of arrangement by which the unchangeable demands of law are met and satisfied?' The laws which regulate disease are at present but little known, and the obscurity which envelopes them is still a great drawback to the successful practice of the healing art. John Hunter considered that the backward state in which he found the art of Surgery (for previous to his time it could not be called a science) was owing to a shallow and theoretical physiology. He therefore devoted all his energies to the study of physiology, not confining himself to the narrow limits of the human

frame, but extending his researches to vital phenomena as exhibited by all living beings. And you, my young friends, must do the same. It is principles, not phenomena—laws, not isolated independent facts, which you must study. If you do not begin by taking an interest in investigating the causes of disease, you will do nothing. A habit of reasoning on the facts which present themselves to your notice is essential to success in our Profession. The widest field of observation, rich in Medical phenomena, is utterly useless without this habit. The time has been when you might meet two Physicians, the one prescribing for symptoms, the other viewing the symptoms only in so far as they were indications of the disease from which they sprang. The latter is a physiologist; the former, ignorant of the science, except in name. I consider, then, anatomy and physiology the essential groundwork of the Profession. Anatomy and physiology lead to pathology, to which you must attend most diligently in all its details. Materia Medica and chemistry are essential, and I have always observed that the man who ridicules the power of Medicine does so because he is ignorant how to use the tools which have been graciously bestowed upon us by a bountiful Providence. The division of labour which takes place in a large capital like London is useful. It is advantageous to the public that certain men should especially devote their attention to the performance of operations, for constant practice as an operating Surgeon alone gives dexterity. I cannot agree to that cant which would decry all operations as the *opprobria medicorum*. A carefully considered, judiciously contrived, and skilfully performed operation is a noble act. It requires a combination of qualities not often met with. If, by the performance of an operation dangerous, difficult, and therefore deeply anxious to himself, he sees a reasonable prospect of being able to save the life of a fellow-creature, he must not weigh in the balance for one moment what the world, or even the Profession, will say if that operation, after all his care and skill, should prove fatal. In the dissecting-room you must acquire that knowledge of anatomy and that dexterity in the use of the knife by which alone you can become skilful operators. You ought always to be in the dissecting-room during the time devoted to that purpose, for, whether you have anything to dissect or not, you can still be learning looking over others. The knowledge you are to acquire in the dissecting-room is, however, only a very small portion of the acquirements essential to a good Surgeon. It is no use your knowing how to perform an operation skilfully if you cannot treat your patient skilfully afterwards. This knowledge must be acquired in the wards of the Hospital, not alone in the Surgical wards, but in the Physicians' as well. The advance which the science of Surgery has made in this country during the last thirty years has been most remarkable, most gratifying to humanity in its results. It is not merely that the great body of Surgeons are better operators than they used to be; it is not merely that the deaths from the operations are, on the whole, fewer than they used to be; but it is this—that more limbs are saved by the judicious and early interference of the Surgeon. Many a foot and hand, many a leg and arm, have been saved in the last few years, which even twenty years ago would most certainly have been sacrificed. These especial operations constitute what has been fairly called conservative Surgery, which, like true conservative politics, consists in the removal of abuses, but without the removal of time-honoured institutions. In either case, the object is to correct and improve, not to uproot and destroy. Chloroform has enabled us to perform many operations which, previous to our knowledge of it, we should have regarded as cruel, lest they should not be final. But chloroform alone has not established conservative Surgery; without Medicine it never could have advanced as it has done. The Surgeon is no longer a mere chirurgeon, or handicraftsman—he must be a sound pathologist—he must be a good Physician, or he is no Surgeon in the proper meaning of the term. The best lectures on Medicine and Surgery can only teach you general principles; you must regard them as valuable aids, but as comparatively useless unless you also observe every case you can while here, for hearing without observing is worth nothing."

Mr. Solly then referred to the present position of the School, and the appointments that would be open to some of the students in the Hospital, and in connexion with this part of the subject he added:—

"I cannot help referring to the fact that there is still a vast amount of bad Surgery even in this great metropolis and its environs. Scarcely a year passes without my seeing a case or two of fracture of collar bone in children undetected; cases of fracture of the base of the radius undetected; fractures of the neck of the thigh undetected, etc.—so might I go on with a longer list. Now be so good as to remember that the Surgeon cannot bury his mistakes like the Physician. Many of your errors as Surgeons will remain permanent and patent proofs of your ignorance and want of skill. I do not mean this in disparagement of Medicine, as I have already said no man can be a good Surgeon unless he is also a good Physician. I am well aware that this dogma will not be assented to by the Surgeons of the old school, but, happily for Surgical science, this old school is rapidly fading away."

Mr. Solly then gave some advice to his auditory as to the selection of their amusements, and to this succeeded an enumeration of the prizes offered to the students, which, they would observe, were no mean reward for industry and intellectual acquirement. Mr. Solly then continued with a reference to the new building already commenced at Stangate, and to the history of the old foundation:—

"This School, though now imperfectly enshrined, will, in the course of two short years, rise again in all its outward glory on the banks of the Thames—a School which dates its origin back 156 years from the days of the immortal Cheselden—a School which numbers amongst its former Professors the names of Meade, Ratcliffe, Ainslie, Reynolds, Fordyce Wells, Sir Charles Locock, Williams, Elliston, Roots, Sir Astley Cooper, Travers Green, Cheselden, Tyrell, and South. The institution which gave rise to St. Thomas's Hospital was founded 700 years ago by St. Mary Ovarie as an eleemosynary establishment. In the fifteenth century St. Thomas's Hospital was munificently supported by the Lord Mayor and Sheriffs of London, an example which has been followed in later times. On July 15, 1536, it was claimed as church property, and surrendered to Henry VIII., who intended re-endowing it for the reception of lame, wounded, and diseased soldiers; but his death interfering with this plan, the citizens of London—to their honour be it told—revived the benevolent design, and, with the sanction of Edward VI., formed a board of inquiry as to the best mode of relieving the misery of their more unfortunate brethren. The result, as regards the foundation of St. Thomas's, was that they purchased of Edward VI. the manor of Southwark, and the worthy citizens, in 1551, at the expense of £1000, repaired and enlarged the Hospital for the reception of 300 patients. The thousands of pounds which private charity thus expended, and is now expending, on this institution, and the thousands more which have been paid to support with food and bedding its unfortunate inmates, would have been of comparatively little service if men had not been found to study Medicine and dispense the healing art. The charity would have remained as in the days of St. Mary Ovarie—an almshouse, not an Hospital. Yes, gentlemen, it is—I say it proudly—the noble Profession which many of you are this day about to enter that gives character to this institution. Before the existence of Medicine as a science, St. Thomas's Spital was in being, but it was only as a resting-place for pilgrims and a place of refuge for the destitute. To rank as a member of such a Profession is ennobling, and to achieve high honour in it is an ambition worthy of a Christian, and, next to our eternal welfare, is worthy of all exertion.

"The internal arrangements of the new Hospital building will be as perfect as the ingenuity of collective wisdom can make them. The contract for the superstructure has been let, and it is provided that the two pavilions next the centre (with the necessary offices and out-patients' departments), the centre block containing chapel and resident Medical officers' apartments, and the school buildings are to be completed by Michaelmas, 1869, and the remainder by Lady-day, 1870. I feel, therefore, confident—considering the energy of our excellent treasurer, the zeal and ability of our architect, and the good faith of our contractor—that the Introductory Lecture for the Session of 1869 will be delivered in our new Hospital at Stangate.

"I have pointed out that all the money spent in charity would have been useless if men had not been found to study Medicine and minister the healing art. With almost equal truth might I say that not only would the Hospital be useless, but the skill of the Physician and Surgeon also, if good earnest women had not been found to aid us in our ministration."

Mr. Solly concluded with an exhortation to the students:—

"If you wish to attain that excellence which I will give

you all the credit of desiring to attain, you must make the dissecting-room, the lecturing theatre, the chemical laboratory, and the wards of the Hospital your dwelling-place; works on anatomy, physiology, chemistry, Medicine, and Surgery, should be your bosom friends, and the noble Profession of Medicine, in its most extended meaning, the only goddess of your idolatry."

WESTMINSTER HOSPITAL.

The Introductory Address was delivered by Mr. W. F. Teevan. The lecturer commenced by welcoming back the old students and giving them some advice. He then addressed himself to the young students, and said he trusted they had entered the Profession from the happiest of all motives—because it seemed to them to be the one in which they would be best able to do their duty and earn an honourable competence in that position in which it had pleased God to place them. He then referred to the disadvantages under which the Medical Profession laboured when contrasted with the sister professions. "But there is no profession in which a man of ordinary intellect and industry is so sure of gaining a moderate competency. Instances of failure, apart from unavoidable causes, are almost unknown. It has, however, infinitely greater recommendations. There is scarcely any path in life in which a man may render greater services to his fellow-creatures, and he carries with him through life the greatest possible consolation—the fact that his work has not a single misgiving to cloud it; its good is unalloyed. Happily for us, our Profession looks upon the great human race as one and indivisible. We know of no difference of race or religion, and hence, in whatever clime our lot may be cast, we can minister equally to all men.

"And now, gentlemen, having entered the path you have chosen, what is the motive which is to induce you to exert your powers to the utmost, and what principle will regulate you in your dealings with those who, like you, are running the same race, and who happen to be your immediate companions in your voyage through life? There are two motives which will generally urge men onwards in the race, and eventually carry them into the foremost rank. Some men become great through the ambition to be so; others perhaps, who are humble-minded, but whose actions are all regulated by a deep sense of duty, find themselves unexpectedly on the pinnacle of fame.

"Gentlemen, if you would study your own happiness and that of your fellow-creatures, duty, and not ambition, must be the watchword of your policy through life. It is better for every man to be happy rather than fortunate. You well know that when Crœsus was at the zenith of his power he thought himself the happiest man on earth, and, interrogating Solon to that effect, was disconcerted at his reply—'Till the closing scene of life, O Crœsus, call no man happy, but only fortunate, for upon many the gods have cast a passing gleam of sunshine and then thrown them uprooted on the earth;' and you remember how, when Crœsus was captured by Cyrus and cast on the burning pyre, he realised the words of Solon.

"If we take Solon's measure and apply it to the ambitious men who have figured in the world's history, we cannot call them happy. Alexander the Great cried when he had no more worlds to conquer. The great Cæsar was slain because his ambition had come to that pass, as Seneca said, that either Cæsar or the state must perish, and the great Napoleon ended his days caged up on a lonely rock. All history is but the record of the exaltation and abasement of ambitious men. We cannot say that the influence of the ambitious man is calculated to improve the standard of the human race, but we know, for a surety, that the man of duty ennobles and purifies his kind."

The lecturer then told them that they must for ever remain students, for not only must they work to keep up the knowledge they had acquired, but they must make themselves acquainted with the fresh additions that are being almost daily made to science.

"If men merely contented themselves with the knowledge handed down to them, there would be no progress. But it is a man's duty to do something more—he must try and add something to the great storehouse of knowledge. It is for each of you to realise the spirit of the oath of the young Greek of old—

ἀμύνειν τῇ πατρίδι καὶ ἀμείνω παραδώσειν.

Be it your lot, gentlemen, not only to maintain unimpaired that which we are about to deliver to you, but do you hand it down better than you found it."

He then pointed out to them that duty must be their guide through life.

"Actuated by a sense of duty, your relations with your fellow-men will be distinguished by a noble, bold, and straightforward policy, and you will never be tormented by that perpetual unrest which marks the man who has chosen the path of a dark and tortuous conduct, and who might often be described as

"'Animus audax, subdolus, varius.'"

Mr. Teevan then went very fully into the special points of a Medical student's education, and strongly advised them to spend their long vacations abroad, in order to make themselves acquainted with the various forms of human character, and to observe the influence, whether for good or evil, which different systems had over men's minds.

"Travelling is a duty which you owe to the great family of the human race, and for a man not to make himself acquainted with the various races is almost as unkind and ungenerous as for a man not to know the members of his own family. Besides, too, it is not well for you to exclaim, as simple Tityrus did,

"'Urbem, quam dicunt Romam, Melibœe, putavi
Stultus ego huic nostræ similem;'

but it is indeed well that you should be able to say,

"'The world is my home, and every man my brother.'"

The lecturer then dwelt at length on the importance of the preservation of their health.

"Remember, it is a true saying that all the great prizes in life fall to the second-rate men. If often happens that brilliant intellects have either not got the stamina necessary to carry them through life, or else that they injure the little they have by their mode of life. For success in life it is necessary for a man to have a good constitution, to enjoy health, to have common sense, but only very moderate abilities. Therefore see that you treat well your best friend—your physical power."

After some further remarks, the lecturer thus concluded:—

"To you who are about to commence the battle of life it would almost seem superfluous for me to urge on you continued perseverance, for you belong to a race the very essence of whose success has been its remarkable pluck and tenacity of purpose.

"Remember that the man who cannot take a defeat is not fit to win a victory, and do you keep always before you those words which I have seen engraved on a foreign tombstone, but of which I can only give you a feeble translation—

"'The reverse of the hour is forgotten, but the glory of a lifetime endures for ever.'

Deserve success, but remember that it is not in your power to command it, for the final disposition of all human affairs rests in other hands.

"And now, gentlemen, let me say that although the end and aim of your Profession is to minister to the ills of suffering humanity, yet do not forget the influence for good which it ought also to have on you. Rightly used, it is capable of conferring on you much improvement of mind and body. But, far above the acquisition of all human knowledge, there are in man's breast things infinitely more precious—noble qualities to be tested, virtues to be tried, great feelings to be evoked, and hallowed thoughts to be cherished. Cultivate, then, all those means which tend to ennoble man and enlarge those better feelings of his heart, without which he were a vain conceit, and his path in life a stumbling-block."

QUEEN'S COLLEGE, BIRMINGHAM.

The Introductory Lecture was delivered by Professor Pemberton, who commenced by referring to the fact that nearly forty years had elapsed since the first introductory address was delivered, on the occasion of the opening of the first session of the first School of Medicine ever established in Birmingham, and that the founder of that School was Mr. William Sands Cox.

The best evidence of the character of the education afforded was the eminent position occupied by those who had been students during that period. Some of the highest honours which the Profession or science could bestow had been conferred on members of the Birmingham Royal School of Medicine and Surgery and the Queen's College; and there

was scarcely an appointment at any of the great Medical institutions of either this or the surrounding counties that was not held by gentlemen who had been educated by Mr. Cox, and those who were associated with him in what might be termed the first era of these institutions.

Within a few weeks the second era would be inaugurated under the provisions contained in the new Act, to which her Majesty had given the royal assent on the 12th of last August.

It might confidently be expected that, from the advantages which the College possessed as a chartered institution, ere long its Professors would represent the greater part, if not the whole, of the Medical institutions connected with Birmingham, so as to insure the permanent prosperity of a great Medical school for the midland district that should stand independent of the chances of either personal or Professional caprice. After some friendly advice to the new students, especially bearing on the necessity of encouraging habits of self-reliance and methodical arrangement, and dwelling strongly on the immense increase in their influence that would result from the exhibition of gentle conduct and demeanour in the Hospital wards, in the presence of the sick, the lecturer proceeded to the main subject of the discourse—"Modern Surgery considered as a Science and Practical Art."

The foundations of the science of Surgery are essentially anatomy, physiology, and chemistry, of which physiology, in his judgment, exercised the greatest influence. What physiology can teach was then pointed out, and especially the mode in which it essentially formed the basis of the "science of Surgery." The distinctions between Surgery as a science and a practical art were next described, and the necessity insisted on of the science and art being ever undivided in practice. Passing on, the chief aims of Surgery were considered, these being the prevention of disease, its removal, the correction of deformities, and the repair of injuries. In regard to the first of these, illustrations were deduced from the treatment of scrofulous diseases of joints, and from the numerous cases of "stone" that occurred, especially amongst children, in this locality.

In the removal of disease, nothing added such scientific lustre to the Surgeon's reputation as the truthfulness with which his promises were realised—"to be able to say where a cure could be effected, where not." This situation was established mainly by the system of modern scientific investigation, aided by the study of structural and morbid anatomy; and its value has been borne witness to by no class of cases so markedly as that of malignant or cancerous diseases. The tendency of modern Surgery was to be "conservative;" that is, to endeavour to save as much as possible when using the knife. "Genius" in Surgery had brought this to bear mainly by its exercise through the teachings and by the example of Professor Syme.

In repairing injuries, nature, in many instances, only required that the best possible conditions should be arranged for her by science—the true restoration she would herself carry out. Prompt interference was, however, at times absolutely necessary, as in the instance of injuries of the head affecting the brain.

The lecturer affirmed that the most elementary Surgery demanded the "study of science"—the phenomena of heat and cold, of motion and rest, food and starvation, were constantly exemplified either as manifestations of diseased action, or as agents for the furtherance of cure. No better allusion, relating to one of these (*i.e.*, "cold"), could present itself than by referring to the application of the ether spray for its production by Dr. Richardson. Great stress was laid on the necessity of attention on the part of students and nurses to "position," both in their dealings with diseases and injuries, than which nothing was more calculated to relieve pain and promote recovery. The last, but probably the most important, subject dwelt on in this part of the lecture was that of "rest"—the "physiological rest" that John Hilton had shown ought to be the guiding principle of the treatment of so many Surgical diseases and injuries. After expressing the opinion that Mr. Hilton's lectures on this subject were amongst the most scientific and completely truthful ones that had been given to the Profession since the days of Hunter, illustrations were offered of the curative action of rest in the treatment of chronic ulcers, of penetrating wounds of the abdomen, and of strangulated hernia, and the paramount importance made clear of a close union of the qualifications belonging both to the Physician and Surgeon in the treatment of numerous Surgical cases, of which injuries and diseases of the intestines are a type.

Amongst the great aids to the advancement of modern Surgery must be numbered the improvement in the means of diagnosis by the discovery and application of the ophthalmoscope, the laryngoscope, and the endoscope—instruments contrived for the purpose of inspecting textures and cavities whose structure and condition under circumstances of injury or disease it was previously impossible to ascertain. In conclusion, Professor Pemberton directed the attention of his audience to the results of Surgery by a reference to the absolute success that attended the performance of the great operations, and pointed out the methods by which this could be realised in the highest degree. Ordinary statistics were derived from a great variety of sources, and were consequently wholly inadequate to show the results obtainable at the hands of the most skilled operators under the most favourable auspices. Many circumstances influenced the success of any given operation; not the least, amongst others which were particularly enumerated, was the individual skill and judgment brought to bear by the operator himself. The results of cases treated under the conditions detailed displayed truly the highest amount of success obtainable by the art of Surgery in the present day. In proof, the skill of Martineau in operating for the stone was adduced, who attained a success of only two deaths in eighty-four private cases, being in the proportion of 1 in 42, whilst the proportion (being taken with other Surgeons under similar circumstances) yielded a result of 1 in 21. Most fairly to be contrasted with Martineau's was the success attained by Mr. Crompton, the Senior Surgeon of the General Hospital in this town, who, in sixty cases, had realised but two deaths; and what was, perhaps, even more satisfactory, as pointing out the care and consideration bestowed on patients in public institutions, not one had occurred amongst those that were treated within the Hospital. These special considerations of personal skill and judgment were further manifest in a remarkable degree in the operation for ovariotomy, the general statistics of which exhibited a recovery of but 50 per cent., whilst individual operations attained a proportion of 68, 77, and even 80 per cent. No more brilliant result had attended the progress of modern Surgery than the perfecting this great proceeding, due mainly to the courage of a few enterprising men, and to none more than to Mr. John Clay, one of the Professors of Midwifery in this College, to whom the Royal College of Surgeons of England had this year awarded the Jacksonian prize in testimony of the merit of his essay on ovarian disease.

The aim, then, of those who become Surgeons must not be to rest satisfied with ordinary results, but, by the application of science and by the cultivation of personal skill, to compel the attendance of a maximum of success in their undertakings.

These were amongst the chief prospects held out by the practice of the science and art of Surgery—prospects the truth of which students must investigate for themselves. Should they be convinced that they were faithfully portrayed, their future happiness and prosperity would be secured by steadily pursuing the paths which lead to them.

GENERAL CORRESPONDENCE.

DR. BEATTY'S REJOINDER TO DR. BARNES'S REPLY.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have every reason to be thankful for the kind manner in which Dr. Barnes has received my criticism of his lecture in a former number of this journal, and the flattering terms in which he has expressed his sentiments towards me. If I was not well assured that Dr. Barnes's intellect and disposition soared far above the field of petty jealousy, and could understand the difference between friendly remonstrance and unworthy cavilling, I would not have encroached upon the valuable space of this journal. My only object was to set public opinion right upon the nature of my forceps, which I think has now been most satisfactorily accomplished.

Dr. Barnes does me only justice when he says that he does not impute to me a desire to insinuate that he did not use my instrument aright. Such an intention was far from my thoughts, for I know too well the skill and dexterity with which Dr. Barnes is endowed to permit me for a moment to harbour such an idea.

I have shown that the term "short" is not applicable to my forceps, and Dr. Barnes has kindly consented to withdraw the

epithet, and substitute that of "straight" for it. For general use the choice lies between the double-curved and the straight instrument, into the comparative merits of which I am not going to re-enter. I, and most of my brethren in this country, use the straight forceps, while Dr. Barnes, and many others in England, prefer that with the double curve. Men are very apt to adhere to what custom has made familiar; and although those who have long used the curved forceps may not wish to abandon them, it is gratifying to find such testimony as Dr. Eastlake bears to the superiority of my instrument, for he was so fortunate as to become acquainted with its merits in youth, and before he had been wedded to any particular form.

Before I conclude, I must correct an error into which readers might fall in looking over Dr. Barnes's reply in your late number. In it he states that, when he was last in Dublin, Dr. Denham mentioned to him that he had very often performed the operation of elosing the perinæum after rupture during labour. It might be inferred that these were all cases that had been delivered in the Lying-in Hospital of this city, of which Dr. Denham is at present the Master. But it is no such thing. These were eases from all parts of the country sent up to the chronic wards of the Hospital for the purpose of having accidents repaired that had occurred elsewhere.

I am, &c. THOS. E. BEATIY, M.D.

18, Merrion-square North, Dublin.

DR. BEATTY'S FORCEPS.

LETTER FROM DR. EASTLAKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In my letter which appeared in your impression of September 28, I alluded to having applied Dr. Beatty's forceps in cases, *inter alia*, where the fœtal head was placed in the *occipito-posterior* positions. I omitted, however, to urge the vast superiority of this instrument over those which possess a double curve in these particular cranial positions. The very fact that the natural mechanism of these cases during parturition is somewhat more complicated than those of the occipito-*anterior* variety, and that the expulsion of the head is, as a rule, more slowly effected, suggests the idea that instrumental aid may not unfrequently be required in this special class of cases to which I allude. At any rate, it cannot be denied that an accoucheur is every now and then called upon to apply the forceps in cases where the child's face is directed anteriorly; and in order to advocate the special advantages of the straight forceps under these circumstances, I cannot do better than quote the expressions of Sir James Simpson upon this important point. I am led to do so from the fact that neither Dr. Beatty nor Dr. Barnes alludes to it as an advantage in the discussion which has appeared in the *Medical Times and Gazette* of the merits and demerits of their respective instruments. In the first volume of his "Obstetric Memoirs," Sir James writes: "*In occipito-posterior positions, the mechanism of the extraction of the head with the forceps should be an exact imitation of the mechanism of the expulsion of the head by nature.* In other words, I am strongly convinced that, in the artificial extraction of the head in occipito-posterior positions, we should make the forehead rotate backwards, and the occiput forwards, according to those rules which we have seen nature following under the same conditions. For here, as elsewhere, the more perfectly we imitate her principles, the more perfect will our own practice be. . . . I have now happened to be called to several cases of occipito-posterior positions, in which the forceps had been applied with the greatest adroitness and dexterity; where, subsequently, every allowable degree of force had been employed, but employed in vain, to pull forth the head in its original position, with the forehead directed anteriorly; and where I have succeeded, with a tithe of the power previously used, by adding to the requisite act of extraction a simultaneous act of rotation of the head, so as to turn the occiput anteriorly and to the right, and the forehead posteriorly and to the left." The Professor goes on to state that so long ago as 1745 Smellie became aware of the importance of *rotating* as well as extracting the head, "in a case in which the large fontanelle was at the left groin." He then finishes his paper on this question with the following remark: "It is in occipito-posterior positions, above all others, that we see the superior advantage of employing a *straight* pair of short forceps, such as those of Dr. Denman or Dr. Ziegler. They enable us to rotate the head easily and safely, as I can testify to you from sufficient experience. If we employed a *curved* pair in this position, and tried to turn the head with them, we should be obliged either to introduce them at first, or extract them at last, with their concavity, instead of their convexity, looking backwards, and consequently with great and unnecessary risk of contusion and laceration of the soft structures of the mother, from the projecting ends and sides of the blades."

I am, &c. HENRY E. EASTLAKE, F.K.Q.C.P.I.

Welbeck-street, Cavendish-square.

MR. GANT'S PATHOLOGICAL SURGERY OF THE ARTERIES.

LETTER FROM MR. LAWSON TAIT.

[To the Editor of the Medical Times and Gazette.]

SIR,—Every man has a right to state his opinion on points of Surgical pathology, as on other matters, as freely as he pleases, and to use every fair form of argument in his power in support of his views; but surely it is scarcely fair to pursue the wholesale system of ignoring what has been done and written by those who think differently—a course that Mr. Gant has taken in reference to acupressure. I would ask any candid reader of the *Medical Times and Gazette* if it be not illogical on the part of Mr. Gant to quote, as he has done, Pirrie and Hamilton in so many cases where acupressure has been used successfully, and yet to tell those gentlemen and all others who use needles (and their names now are legion) that they do not yet know when to remove them; or, again, for him to say that Professor Pirrie's experience goes to show that acupressure has the advantage over ligature in tending to obviate surgical fever, and yet that the tolerance of wounds for metallic and organic matters respectively is still an open question. Surely Mr. Gant must have met with cases of metallic bodies having lain for days, months, and even years, in animal tissues without creating the slightest disturbance beyond occasional pain. I am a younger man than Mr. Gant by twenty years, and yet have seen many such. Did any one ever see a patient with a skein of silk (*seton*) under his skin for a week that did not cause pus? If I run up to town, taking with me six or eight grains of putrid flesh bathed in pus, will Mr. Gant allow me to open some wound in the Royal Free Hospital, and insert them? It is only by such "curious considerations" that we will arrive at much in pathological Surgery.

Mr. Gant supposes that, because, when the sentence he quotes was written by Sir J. Y. Simpson, no experiments had been performed for the investigation of the method of closure of the arteries by acupressure, therefore none would be. But not only were they undertaken and published, but many post-mortem examinations have since shown their accuracy, and have confirmed the conclusions drawn, which were known long before the days of acupressure, that for the perfect and safe occlusion of an artery the *interna* and *media* coats not only do not require to be divided, but that the process will be much more certain and safe if they are not cut through; that nothing is required to insure such an occlusion but approximation of the opposite walls of the vessel, and a very moderate amount of pressure to keep them in such position; and that the clot plays but a third- or fourth-rate part in the occluding process. These conditions are better obtained by the use of acupressure than of any other known hæmostatic. I have never seen secondary hæmorrhage follow the use of acupressure, and I speak from the experience of having occluded nearly two hundred and fifty vessels by its means, using it almost daily, and of having seen its employment in scores of cases under the care of Sir James Simpson, Dr. Watson, Mr. Edwards, and many others.

Finally, I should like to see a case quoted of a properly fastened ligature having come away in any such short time as twenty-four hours. The term "degeneration," as applied to the obliteration of an artery into a fibrous cord, is, I am quite sure, a mistake, though a common one. Nature can, and does, remove muscular tissue and obliterate serous cavities; but she cannot, or at least does not, remove fibrous structure like the loose external coat of the arteries. In the case of an obliterated artery, the muscular coat undergoes fatty degeneration, and is removed as other effete material; the serous canal is obliterated (perhaps its membrane likewise partially removed), and all that is left is the indestructible fibrous tissue of the external coat. I am, &c. LAWSON TAIT.

Wakefield, October 1.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 3, 1867 :—

Thomas Cuddeford, Plymouth; Ebenezer Shedd, Manchester; William Jenner, Thorney Abbey, Cambridgeshire; George Fred. Eachus Wilkinson, Sydenham; John George Hurford, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

MCNAB, R., M.D., has been appointed Surgeon to Clopton's Asylum, Bury St. Edmund's.

OGDEN, C., M.R.C.S.E., has been appointed Senior House-Surgeon to the Ardwick and Ancoats Dispensary, Manchester.

BIRTHS.

BOGLE.—On August 28, at Darjeeling, India, the wife of A. L. Bogle, M.D., 20th Regiment Bengal Native Infantry, of a daughter.

BRISTOWE.—On October 5, at 2, Queen-square, Westminster, the wife of J. S. Bristowe, M.D., of a son.

BRUSH.—On October 2, at 10, Camden-crescent, Bath, the wife of J. R. Brush, M.D., F.R.C.S., of a son.

GRIMSHAW.—On October 2, at 13, Molesworth-street, Dublin, the wife of T. W. Grimshaw, M.D., of a son.

HOPKINS, H. C., M.R.C.S., has been elected House-Surgeon to the Royal Free Hospital, Gray's Inn road.

KAVANAGH.—On October 3, the wife of P. Kavanagh, M.D., of Deptford, of a daughter.

OGILVIE.—On September 22, at Alexandria, Egypt, the wife of Dr. J. F. Ogilvie, of a daughter.

PRIDHAM.—On October 4, the wife of C. Pridham, F.R.C.S., of a son.

SCOTT.—On October 3, at 8, Chandos-street, Cavendish-square, the wife of J. Scott, M.D., of a son.

SLYMAN.—On October 5, the wife of W. D. Slyman, M.R.C.S., of 26, Caversham-road, N.W., of a daughter.

SQUIRE.—On October 2, at Wivenhoe, Essex, the wife of S. N. Squire, M.R.C.S.E., of a son.

MARRIAGES.

FAER—WESTON.—On October 8, at St. Andrew's Church, Holborn, G. E. Faer, Esq., Assistant-Surgeon R.N., Haslar Hospital, to Emily, second surviving daughter of the late C. Weston, Esq., of Fletton, Hunts. No cards.

TUCKWELL—BISHOP.—On October 3, at Holywell Church, Oxford, H. M. Tuckwell, M.D., to Martha Grace Macleod, youngest daughter of the late C. J. Bishop, M.D., of Holywell, Oxford. No cards.

WEBB—CANNOCK.—On October 2, at Newent, J. Webb, M.R.C.S.E., L.S.A., of Blakeney, to Anne, only daughter of the late J. Cannock, Esq., solicitor, of Newent. No cards.

MUIR—WIER.—On the 26th ult., at the Cathedral, Halifax, Nova Scotia, by the Very Rev. Dean Bullock, assisted by the Rev. J. C. Edgehill, Chaplain to the Forces, Henry Skey Muir, M.D., Medical Staff, to Marie Louise, daughter of Edward Wier, of New York, and niece of the Hon. B. Wier, Senator, D.C.

DEATHS.

BOOTH, B. W., M.R.C.S.E., of Chapel-street, Pentonville, on September 26, aged 61.

HUDDLESTON, J., M.D. (formerly J. Simpson, M.D.), of 21, Gloucester-place, Portman-square, aged 74.

JACKSON, W., F.R.C.S.E., of Sheffield, on September 27, aged 77.

MACGREGOR, J., M.D., at 30, York-crescent, Clifton, on September 1, aged 57.

RINGROSE, E., M.D., of Potter's Bar, at Sowerby, near Thirsk, Yorkshire, on October 2, aged 31.

SCOTT, D., M.D., Surgeon-Major H.M.'s Bengal Service, at Umballah, India, on September 16, aged 44.

SMITH, R. P., M.D., at Mortimer House, near Reading, on October 7, aged 72.

VACANCIES.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon.

DOVER HOSPITAL AND DISPENSARY.—Resident Medical Officer.

ROYAL ISLE OF WIGHT INFIRMARY.—House-Surgeon and Secretary.

POOR-LAW MEDICAL SERVICE.

APPOINTMENTS.

Fareham Union.—James W. B. Alder, L.F.P. and S. Edin., to the Rowner District.

Alcham Union.—George Arnison, M.R.C.S.E., L.S.A., to the Sixth District.

THE daily papers report that the King of Sweden underwent the operation for fistula on Monday last. His progress is said to be satisfactory.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—EXAMINATIONS, 1867.—Senior Scholarship in Anatomy, Physiology, and Chemistry: 1. J. R. Rouch; 2. A. F. Field. Junior Scholarships, 1866: 1. J. R. Rouch; 2. F. de H. Hall; 3. T. H. Hendley. Bentley Prize: L. Newton. Kirkes Medal: 1. L. Newton; 2. W. Square. Practical Anatomy, senior: Foster Prize, T. H. Hendley; 2. E. Groves; 3. E. A. Brickwell; 4. F. J. Glencross; 5. D. Smart; 6. J. T. Hartill; 7. J. R. Rouch; 8. B. S. Ringer; 9. C. Bennett; 10. J. G. Williamson. Wix Prize: W. D. Butcher. Hichens Prize: 1. W. D. Butcher; 2. A. F. Field. Practical Anatomy, junior: Treasurer's Prize, H. A. Smith; Examiner's Prize, C. J. Davis; 3. F. H. Turner; 4. C. F. Gray; E. H. Cooke and C. J. Wharry.

GLASGOW FACULTY OF MEDICINE.—At a meeting held on the 4th instant the following gentlemen were elected office-bearers for the session 1867-8, viz.: *President*: Mr. James McInnes. *Vice-President*: Dr. Hugh Thomson. *Treasurer*: Dr. Thomas Lapraik. *Secretary*: Dr. Daniel M'Lean. *Librarians*: Mr. George M'Ewan, Mr. James R. Buchanan. *Seal-keeper*: Dr. Robert Cowan. *Vaccinator*: Dr. Robert Renfrew. *Directors*: Mr. John Dougan, Mr. David Calderwood, Dr. Joseph H. Menzies, Mr. Alexander Morton, Mr. Andrew M'Farlane, Mr. William Patrick. *Factor*: Mr. James Donald. *Officer*: John Mitchell.

MEDICAL CHARITIES.—Mr. Benjamin Scott Riley, late of Bath, has bequeathed to the Liverpool Royal Infirmary the sum of £4000, besides bequests to other charitable institutions, and the late Mr. Edward Starkie Tuton, of Fairfield, lately deceased, has also left legacies to twenty-one institutions, amongst which are the Liverpool Royal Infirmary £100, the Southern and Northern Hospitals of Liverpool and the Dispensary £50 each.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—ANNUAL DINNER.—After the introductory address of the session, the friends, present and former pupils of this School of Medicine dined together at the Adelphi Hotel under the able presidency of E. R. Bickersteth, Esq. About seventy gentlemen were present, and a most agreeable evening was spent.

THE annual distribution of prizes to the successful students of the Liverpool Royal Infirmary School of Medicine took place in the large theatre of the School on Tuesday, October 1, at the close of an introductory lecture by Mr. A. B. Steele. The chair was filled by Charles Langton, Esq., and the attendance, comprising many of the leading Medical Practitioners of the town and other non-Medical gentlemen of influence, was very numerous. Of course, anything like a complete *résumé* of the lecture, the delivery of which occupied a considerable time, cannot be given here. It was characterised by great good sense, and for clearness of expression and felicity of diction well sustained the reputation which, as a lecturer, its author has deservedly earned in these parts. It discussed in an able manner the advantages, even to the public, which accrued from the establishment among them of a Medical school, by the stimulation given thereby to the cultivation of the higher and newer branches of Medicine; pointed out the relative advantages and disadvantages of provincial schools, giving due weight to the economical part of the question, and terminated by some manly and wholesome advice to those students who, for the first time, were entering on their Hospital work. The following were the most successful students in the respective departments:—Exhibitioners: Mr. H. N. Hardy and Mr. R. Hughes (equal). Surgery: Mr. H. N. Hardy, silver medal; Mr. P. Ryder, certificate. Anatomy and Physiology: Senior, Mr. J. D. Hill; silver medal, Mr. R. A. H. Wood, certificate. In the other classes the undermentioned gentlemen, of whom the first gained the silver medal and the second a certificate, distinguished themselves—Anatomy and Physiology: Junior, Messrs. J. Matthews, and W. S. Paget and N. Smedley (equal). Chemistry: Messrs. W. S. Paget and H. Y. Pitts. Midwifery and Diseases of Children: Messrs. T. W. Sleddall and J. D. Hill. Materia Medica: Messrs. R. A. H. Wood and J. Matthews. Forensic Medicine: Mr. J. D. Hill, book prize. Botany: Messrs. W. S. Paget and J. Matthews. Practical Chemistry: Messrs. J. Matthews and H. Y. Pitts. Comparative Anatomy: Mr. W. S. Paget, book prize; Mr. H. Y. Pitts, certificate. Pathology: Mr. F. White, books. The museum has lately been greatly enriched by the presentation of a valuable series of models and other preparations from Mr. Bickersteth, while Dr. Cameron has added several standard works in the different branches of Medical literature to the library.

THE deaths by yellow fever in New Orleans averaged at last accounts 249 per week.

ON Wednesday evening Dr. Guy read a valuable paper on the Sublimation of the Alkaloids before the Royal Microscopical Society at King's College. The audience was unusually large, and all were delighted with the wonderful results obtained, as well as with the beautiful crystalline forms produced in this way.

CHOLERA AT MALTA.—Cholera appears on the decrease at Malta. The military population have lately had no cases. From September 26 to October 4, there were, among the civil population, 141 cases and 90 deaths. The disease has broken out in the Dominican convent; of a community of 20, 11 were attacked and 10 died. The outbreak of cholera this year at Malta affords us a sad example of the negligence of authorities. The localities in which the epidemic has appeared are those which were in 1861 condemned by Captain Galton and Dr. Sutherland, and which during those six years have remained in the condition in which those gentlemen found them. The drainage is most incomplete, the ventilation is of the worst description, and in many instances a greater number of men were congregated together than was recommended. Personal cleanliness on the part of the soldiers is, we learn, a matter which has received little consideration. Whether these facts be viewed from a military or social aspect, they are equally serious. A soldier is an expensive necessity, and, if for no other reason than the prevention of expenditure, he should be properly cared for. Again, Malta is a sort of choleraic halfway house between the East and this country, and its sanitary condition should be such as to exclude all travelling epidemics

PRISON DIET.—At a meeting of the Social Science Association, in Belfast, Dr. Lankester called attention to the miserable scale of dietary adopted in many of our prisons, and expressed an opinion that it was at once unjust and injudicious to punish criminals by submitting them to slow starvation. He draws the following conclusions:—"1. That every dietary should have a sufficient quantity of heat-giving and flesh-forming principles. 2. That a due regard should be had to the digestibility of both these classes of food, never allowing the indigestible portions of food to be substituted for the digestible. Wheaten flour should be made the basis of all diet; and animal food, peas, beans, lentils, rice, etc., should supplement it according to the quantities of flesh-forming and heat-giving materials they contain. 4. Animal food should be given every day, as it acts not only as a direct means of supplying food, but as a digestive, especially for vegetable food, the example of such action being seen in Liebig's 'Extractum Carnis.' 5. Condiments, such as pepper, mustard, onions, etc, should be added to food, as they act as digestives. Alcohol acts in the same way, and should be administered in the form of light beer, or as with spirits and milk to the aged. 6. Uncooked fruit or vegetables supply saline and other constitutents most important to the health, and should be supplied every day. 7. The food in prisons and workhouses is not taken sufficiently often; and it is better to take the same quantity of food at four times than at twice. 8. Food should be properly cooked and supplied hot. This is a great economy both of food and health, and should everywhere be insisted on."

SUICIDE OF A PHYSICIAN.—Dr. Smith, formerly Physician to the Royal Berks Hospital, committed suicide by taking prussic acid on Tuesday last. The deceased had been for some time labouring under great mental depression. His death has cast a gloom over Reading and its neighbourhood, where he was much respected. Dr. Smith was father of Professor Goldwin Smith.

BLEEDING IN PNEUMONIA.—The recent inquiries of M. Macario lead him to conclude, contrary to the opinion of Dr. Hughes Bennett, of Edinburgh, that bleeding to a certain extent is beneficial in pneumonia. He gives the result of cases treated according to different methods. In the first table he records the cases treated by bloodletting one to three times, and by tartar emetic in large doses. There were 202 cases, seventeen, or 8 per cent., of these cases being fatal. In the second table are the cases treated by leeches applied once or twice, and with large doses of tartar emetic. These were thirty-three; six cases were fatal, or nearly 18 per cent. In the third table are the cases treated by emetic alone; of these there were sixteen cases, and two deaths, or 12 per cent. In the fourth table are five cases treated by antimony alone; of these one was fatal, or 20 per cent. M. Macario concludes that although in Scotland, where a foggy atmosphere and lymphatic temperament prevail, a tonic treatment may be best, in warm climates a little bloodletting is beneficial in the treatment of pneumonia.

OUT-DOOR RELIEF OF THE POOR.—The St. Pancras guardians have taken steps to carry out the new arrangements for the relief of the poor. In this large parish, there are no less than 7600 poor, who had hitherto to attend at the Workhouse in order to obtain relief. Henceforth the parish will be divided into three districts, so that the poor need no longer be submitted to the inconvenience of repairing to one centre. Special buildings are being established for their reception, but are not yet open. For the present, therefore, Grafton Hall, near Fitzroy-square, and Milton Hall, near the Red Cap, Camden-town, have been taken as temporary places for the reception of paupers applying for out-door relief.

VITAL STATISTICS OF THE FOUR CAPITALS. — M. Legoyt thus recapitulates a paper on the statistics of London, Paris, Berlin, and Vienna, read at the Paris Statistical Society:

	London.	Paris.	Berlin.	Vienna.
Inhabitants for 1 birth . .	29 0	32·2	27·7	22·1
„ „ death . .	42·8	40·0	38·0	28·0
„ „ marriage .	99·5	105·6	94·5	110·0
Children by marriage . .	3·25	2·38	2·89	2 51
Natural births in 100 total births	4 31	21·20	15·42	49·61
Born dead per 100 births .	—	7·63	4·54	3·94
Inhabitants per *hectare* . .	36·34	233 95	154·5	84·29
Kilogrammes of meat per head	109	75	53	87
Inhabitants per house . .	7·7	31·1	28·8	56·7

According to these figures Paris has the least and Vienna the greatest general fecundity; Paris the least and London the greatest legitimate fecundity; London the lowest and Vienna the highest illegitimate fecundity; London the lowest and Vienna the highest mortality; Berlin the greatest and Vienna the least number of marriages; Paris the greatest and Vienna the least number of born dead; London the least and Paris the greatest density of population; London the fewest and Vienna the greatest numbers of inhabitants per house; London consumes the greatest quantity of meat, and Berlin the least.

A HORRIBLE case of child murder under the influence of fanaticism or religious iosanity is reported from Russia. The murderer, a man named Kursin, who belonged to a numerous and fanatical sect called the sect of the Saviour, killed his own son, and offered him as a sacrifice to God. His own account of the crime is as follows:—"One night I felt so strongly that the human race must soon perish that I could not get a moment's sleep. I rose and lighted all the lamps before the images of the saints, and, throwing myself on my knees, I fervently prayed God to save me and my family. Suddenly the idea came to me of saving my son from eternal damnation; for as this only child was a beautiful boy and finer than most boys of his age, I feared that he would become, after my death, the prey of hell, and I determined to sacrifice him to the Lord. Filled with this idea I continued to pray. I said to myself that if during my prayer the thought of sacrificing my son to God came to me from the right side I would execute it; if, on the contrary, it came from the left, I would give it up; for, according to our religious teachings, the thought which comes from the right side is from our good angel, and that from the left is the instigation of the devil. After a long prayer, the thought came to me from the right side, and I returned full of joy to the room where my son slept by the side of my wife. Knowing that she would oppose the sacrifice which I desired to offer to God, I sent her to the market to purchase provisions. When she had gone, I awoke my child, and said to him, 'Get up, my son, put on thy white shirt, that I may admire thee.' When he had done this I laid him on the bench, and, after stabbing him in several places, cut the stomach open from top to bottom." Kursin says that just as the child breathed his last the first rays of the sun shone through the window, and in a moment of ecstasy he fell on his knees and implored God to mercifully receive this sacrifice. Kursin continued his narrative in these terms:—"Just as I had thrown myself before the holy images, and as my son was lying in his blood, the door opened and my wife came in. She instantly saw what had passed, and, seized with horror, she fell senseless to the ground. I raised her, and said, 'Go to the mayor and tell him all. I am going to give a *fête* to the saints.'" Kursin, after he had been sent to prison, resolutely refused all kinds of nourishment, and died of starvation before the sentence upon him could be executed.

Resurrectionists in Ancient Times.—Felix Plater relates that during his student days at Montpellier he took good care never to miss the opportunity of witnessing the dissections which had to be practised privately, and for which it was necessary to sally out armed beyond the precincts of the city and secretly disinter in the cemetery adjacent to the cloisters bodies which had been buried the same day, and indicated by spies. He thus recounts his first adventure in December, 1554:—"The night had already commenced when Gallotus conducted us to the monastery of the Augustins, where we met an adventurous monk who had disguised himself in order to render us his aid. We entered the cloisters furtively, and passed the time in drinking until midnight, when well armed, and observing the most profound silence, we went on to the cemetery of the convent of St. Denis. We disinterred the body, employing our hands only, as the earth had not had time to harden. When we had reached it we passed a rope around it, and, pulling with all our might, hauled it up, and, having covered it with our cloaks, carried it upon supports to the gate of the town. This was about three in the morning, and having deposited our burden in a corner, we rapped at the wicket, which was opened by an old porter in his shirt. Pretending to be dying of thirst, we besought him for drink, and while he was gone for some wine some of our number slipped by with the body. The monks professing to guard the cemetery drew a few cross-bows on the students while in the cloisters. The *theatrum* was often used for dissections, under the presidency of a professor, a barber wielding the scalpel. Besides the students, a great number of seigneurs and citizens were present, as also ladies, even when the subject was a male, and monks." Plater in 1559 introduced the practice of dissection into his native town Basle.

Prison Dietaries.—The subject of prison diet, to which such prominence was given in the discussions at the Belfast meeting of the Social Science Congress, has received the attention of the Government. The Irish Administration have issued a commission of inquiry into the dietary of the Irish county prisons, with a view to establish a uniform scale of diet. The commission will consist of Dr. Stokes, Regius Professor of Physic in the Dublin University; Dr. Burke, Physician to Steevens's Hospital; and Dr. Hill, Poor-law Medical Inspector.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

*** We have received from Dr. Marcet the lungs of a guinea-pig which had been inoculated with the sputa of a phthisical patient on July 29, and which died on September 30. For this he has our best thanks; but Dr. Marcet must not mistake our meaning. We had no desire to contravene anything he had said. All we did was to take his facts, and deduce from them something beyond what he himself had done. Dr. Marcet may call the deposit tubercular; well, we do not object, provided that, by tubercle, one is to understand all the forms of deposit produced in this and other modes of experimentation, but surely we are not to call the grey granulations found on serous membranes by the same name. If we persist in denominating things so very different by identical terms, hopeless confusion must ensue. What we specially aimed at in our last article on the subject was to point out that a certain relation, however vague, existed between pyæmia and the so-called tubercular deposits found in animals after the introduction of foreign substances into their vessels. Will Dr. Marcet, or any one else, aid in elucidating the matter? Surely there are not wanting among Medical men some sufficiently heterodox to believe in the purely physical effects of so-called tubercle in the production of these deposits.

Enquirer.—The individual referred to is a well-known quack.

H. Raynes.—Dr. Barnes's forceps can be had of Weiss, Strand, or of Krohne and Sesemann, Whitechapel.

Associate, K.C.—The examination at the College of Surgeons in Medicine will not come into operation until October, 1868. The licence of the Society of Apothecaries is one of those recognised by the College.

Mr. Frampton.—Dr. Shebbeare was condemned to stand in the pillory at Charing-cross for publishing "A eighth letter to the people of England." Probe was the *nom de plume* of the late Dr. Lynch, whose pencillings appeared in the early volumes of this journal.

An Old Member.—The mace was given by George IV. The large silver cup was presented by the celebrated Ranby to the Corporation of Surgeons on its separation from the Barbers' Company in the year 1745.

Erratum.—An error occurred in a paragraph which appeared in the *Medical Times and Gazette* of September 28. Haulbowline is the only home Naval Hospital to which a Deputy-Inspector-General is *not* appointed.

"*A London Correspondent.*"—The *Gazette de France* was established in 1632 by a Physician, Theophrastus Renaudot, under the patronage of Louis XIV. The designs for the Louvre were made by a Physician named Perrault. Sir Christopher Wren was educated for the Medical Profession. Professor Owen was originally a midshipman in the Royal Navy. Your paper is no doubt very interesting, but hardly adapted to a Medical journal.

Nuga Chirurgicæ, Sheffield.—Rupture has been fatal to several of our royal family. Queen Anne died of it, as also Louisa, the fifth and youngest daughter of George II., after an operation for its reduction of upwards of an hour. Her mother, Queen Caroline, died after an unsuccessful operation performed by Ranby, "the blockhead," as she called him. Caroline of Brunswick, the wife of George IV., who was said to have died of a *broken heart*, it has since transpired, also died of the same complaint. Consult Doran's "Lives of the Queens of England."

A Fellow, Exeter.—It would occupy too much time to make the required analysis, but perhaps the following will serve your purpose. The smallest number of Fellows attending a Collegiate election was in 1860, when only 37 voted—viz, 4 by election, and 33 honorary and elected Fellows. The largest number was in 1865, when 355 recorded their votes; of this number, 132 were Fellows by examination, and 223 honorary and elected Fellows. Of the 355 who voted, no less than 105 resided twenty miles and upwards from this metropolis, and the remaining 250 in and within that distance. Consult the back numbers of the *Medical Times and Gazette*. In July next, Mr. Hilton will preside at the election, and Mr. Partridge, the late President, at the dinner.

The Public Health, Quarter ending September 28, 1867.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The annual mortality of the ten large cities and boroughs in England for the quarter just ended, compared with the corresponding quarter of last year, was as follows:—

	1867. Quarter ending Sept. 28.	1866. Quarter ending Sept. 29.
London	21·3	29·2
Liverpool	28·5	50·5
Manchester	31·6	30·7
Birmingham	25·9	19·3
Leeds	28·8	30·9
Sheffield	23·8	24·0
Bristol	19·2	20·7
Newcastle-on-Tyne	29·5	31·6
Salford	28·4	26·8
Hull	26·2	22·3

The high death-rate in Liverpool for the summer quarter of 1866 was owing to the great prevalence of cholera.

London and Bristol have been remarkably healthy this summer; but in all the other places the public health has been unsatisfactory. Infantile mortality from diarrhœa and scarlatina was excessively great. Manchester has lately decided on having a Medical officer of health, but so nearly was the project being negatived by the town council of that city, that on a division the numbers were found to be equal, immediately on which the mayor gave his casting vote in favour of the proposition.

The town council of Birmingham have been memorialised in two petitions of the inhabitants of that borough to appoint an officer of health. To the second memorial were attached the signatures of eighteen borough magistrates, the leading members of the Medical Profession, and the principal householders and tradespeople of the town. The petition was also signed by a large number of merchants and manufacturers, besides many other eminent and influential mercantile houses within the borough. The prayer of the memorialists is now under the consideration of the town council

I am, &c.

Birmingham, October 2. Thomas L. Plant, F.M.S.

Sewer Traps.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The admirable suggestion of Dr. Alfred Carpenter, in last week's *Medical Times and Gazette*, has been in force for a long time at the Brighton Hospital, as you will perceive by a letter of mine in the *Times* of September, 1865. "These pipes—the bath and scullery—now stop at a distance of about four inches with the trap, and their contents run over this space by an open course, which is kept clean by throwing a bucket of water over it every morning. Instead of sewer gas the air now in these pipes must either be from the wards or from the external atmosphere, so that, in fact, they may sometimes act as ventilators to the building as well as vehicles to refuse water." The plan works well, and it has been carried out in the new wing. In this town a new workhouse has lately been erected; some call it a palatial edifice. It will accommodate about 800 persons. Though there may be errors in a few of the details, it is, generally speaking, well arranged. As a Guardian, I have taken more than ordinary interest in its several departments, and I wished the above system of drainage to be carried out, but I met with this response from an official, in many matters a man entitled to the greatest consideration:—"I found that sort of thing at a house the other day, and I soon doused it." As you say, cisterns with their waste pipes and their lids, which prevent the escape of gases emanating from these pipes—in many cases mere continuations of the sewer—are fearful sources of contamination. Where there is a "constant supply of water," this nuisance may be corrected by having a trap in the area direct from the main, thus avoiding cisterns and providing deliciously cool beverage in the summer. At the Hospital, as some alleviation to the escape of foul air, you will see that we carried the soil pipe of the closet, by a flue, to the top of the building, where it terminates by an open mouth. A few days after this, the soil pipe being trapped as before, I, in company with the steward and dispenser, mounted the roof to test the air from this continuation pipe. Our olfactory nerves gave immediate evidence of its necessity. In the attempt to carry out this ventilation I met with a rebuff somewhat akin to the one already mentioned, but I had reason to exclaim, "Thank God that we have a Hospital Committee"—in other words, a body of men who for the most part rejoice in the *otium cum dignitate*, and therefore have no excuse for acting in any other way but as "independent beings."

Brighton, October 6. I am, &c. E. F. Fussell.

The Clinical Thermometer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am still receiving a good many letters of inquiry about the portable clinical thermometer—letters which, of course, I am glad to answer. It may, however, perhaps save some pains both to your readers and to myself if you will kindly allow me to say again that the short self-registering thermometer which I use was made for me by Messrs. Harvey and Reynolds, 13, Briggate, Leeds. I am, &c. T. C. Allbutt.

Why the Navy does not get Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Notwithstanding the increased pay, position, and so forth, awarded of late years to naval Medical officers, there is still a lamentable want of candidates to fill the attenuated ranks of the Assistant-Surgeons. Many reasons have been assigned for, and many suggestions made to remedy, this state of things, and from all I have seen and read it appears to me the prime cause of the evil lies in a maladministration. Seniority and service claims are so studiously overlooked in appointments to desirable positions, and in promotions to the higher grades, that the senior members of the corps become disgusted, and the dis-atisfaction resulting reacts upon the schools, and prevents fresh entries. Any one acquainted with the conduct of the department will readily see the truth and the force of these observations. The root of the evil, the *origo mali*, lies in the practice of allowing admirals to select Surgeons to their flag-ships. The result is, that junior Surgeons are frequently appointed to such positions, and, thus acquiring what is called "service influence," obtain promotion, ultimately to the prejudice of senior men. To some extent this favouritism is checked by a recent regulation requiring that the Surgeons of flag-ships on foreign stations shall be of Staff-Surgeon's rank. But there is no rule or law to prevent the appointment of the most junior Surgeon to a flag-ship at a home port. Two such appointments will become vacant in a few days—viz., the surgeoncy of the *Royal Adelaide* at Devonport, and the surgeoncy of the *Victory* at Portsmouth—and, in the interest of the public service, I would ask you to use your great influence to prevent any officer under Staff-Surgeon's rank being appointed to those ships, and allow this letter to appear in the columns of the *Medical Times and Gazette*.

I am, &c. A Subscriber.

"Sanitary" and "Sanatory"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You have done well to point out the different meaning of the above words according to their interpretation in the present day. It is very important that the terms we employ for the purpose of communicating our thoughts to one another should have a meaning affixed to them which is generally accepted and understood; for that reason we are often compelled to adopt a word in common use, to the neglect of one which our love of correct speaking or writing would lead us to prefer.

It must be remembered that the right definition of word- is not always a test of their appropriateness when custom has set aside their true meaning and put another interpretation upon them.

This is the state of the case with regard to "sanitary" and "sanatory." Both words, I believe, are derived from the same etymon. We have, for instance, "sanitas" from "sanus," healthy, sound. The word "health" gives us "heil," or more directly "heal;" thus we have "to heal," or make sound, and we come round to "sano," "sanare," and "sanatory," bringing us to the point whence we started.

I think you will agree with me that, although custom has assigned a different meaning to the words under consideration, they yet have but one origin; but although, strictly speaking, it is not incorrect to use the terms indifferently, it is more convenient, for the reason before stated, to employ them in the sense in which they are now generally understood.

September 21. I am, &c. * * *

COMMUNICATIONS have been received from—Dr Eastlake; Mr. Teevan; Mr. F. J. Gant; Dr. Barnes; Dr. Leared; Mr. J. Chatto; Dr. Lawson; Mr. Solly; Mr. Lawson Tait; Dr. Downie; Dr. Beatty; Mr. G. Reid; Mr. Hodgson; Dr. Dobell; Mr. Raynes; Dr. Fussell; Mr. Harrison; Dr. Baylis; Mr. Dobbin; Dr. Allbutt; Mr. Gamgee; Dr. Lafraik; A Subscriber; Mr. Hooper; Mr. Curgenven.

BOOKS RECEIVED—

A Glance at the Commons near London—Dobell's Report—Medical Mirror, No. 46—Thorburn's Introductory Address—Journal of Mental Science, No. 63—Report of the St. James's Medical Officer of Health—Pemberton's Illustrations of various Forms of Cancer—Moore on Rodent Cancer—Skey's Lectures on Hysteria—Anderson on Eczema, Second Edition—Health Report of the Parish of Marylebone—Toynbee on the Ear (reissue)—New York Journal of Medicine, No. 30—Power on the Eye.

NEWSPAPERS RECEIVED—

Saunders' News Letter—Gazette Hebdomadaire—Medical Press and Circular—Poor-law Chronicle.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·947 in.
Mean temperature	48·2
Highest point of thermometer	66·7
Lowest point of thermometer	30·3
Mean dew-point temperature	41·2
General direction of wind	W.S.W. & N.
Whole amount of rain in the week	0·05

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 5, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Oct. 5.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Oct. 5.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3032372	39·5	2057	1421	1182	66·7	30·8	48·2	0·05	5
Bristol (City) .	165372	35·3	100	74	161	62·0	35·4	49·3	0·21	21
Birmingham (Boro')	343948	43·9	205	167	169	67·0	31·5	48·6	0·10	10
Liverpool (Borough)	492432	99·4	344	285	244	66·0	34·2	48·3	0·16	16
Manchester (City) .	362823	80·9	212	205	‡205	61·0	30·5	46·2	0·35	35
Salford (Borough) .	115013	32·2	66	58	61	58·8	30·7	47·1	0·25	25
Sheffield (Borough).	225199	9·9	185	119	86	62·0	33·8	47·5	0·07	7
Leeds (Borough) .	232428	10·8	173	113	129	63·0	28·5	46·2	0·07	7
Hull (Borough) .	106740	30·0	77	49	66	63·0	32·0	47·3	0·24	24
Newstl-on-Tyne, do.	124960	23·4	75	66	69	..	..	..	..	..
Edinburgh (City) .	176081	39·8	121	85	89	57·7	33·0	45·1	0·10	10
Glasgow (City) .	440979	87·1	335	257	199	57·8	31·0	46·4	0·51	52
Dublin (City and some suburbs) .	319210	32·8	131	†157	134	61·6	32·9	48·9	0·21	21
Total of 13 large Towns . .	6187764	34·8	4084	3061	2684 Week ending Sept. 28.	66·7	28·5	47·2	0·19	19
	(1863)				244	§			Week ending Sept. 28.	
Vienna (City) .	560000	..	..	..	..	52·7	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·947 in. The barometrical reading decreased from 30·31 in. on Tuesday, October 1, to 29·69 in. on Wednesday, October 2. The general direction of the wind was W.S.W. and N.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 53·0°.

APPOINTMENTS FOR THE WEEK.

October 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Pathological Society, 8 p.m. Meeting.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Mr. T. Carr Jackson, "On Circumscribed Abscess of Bone."

18. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 8 p.m. Dr. Fuller (President), "On the Nature of Rheumatic Inflammation and the Cause of its Migratory Character."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 5, 1867.

BIRTHS.

Births of Boys, 1074; Girls, 982; Total, 2057.
Average of 10 corresponding weeks, 1857-66, 1788·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	627	555	1182
Average of the ten years 1857-66	596·5	564·2	1159·7
Average corrected to increased population..	..	..	1266
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	5	4	1	5	4	11	2
North ..	618,210	0	4	8	2	3	11	9	1
Central	378,058	1	..	8	3	1	3	10	..
East ..	571,158	2	..	3	..	4	12	24	..
South ..	773,175	1	3	7	7	5	12	24	2
Total ..	2,903,989	11	12	30	7	18	42	78	5

WHEATEN BISCUITS,

Sweet and Plain,

MANUFACTURED BY

HUNTLEY & PALMERS, READING.

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They can be obtained of the leading Italian Warehousemen and Grocers in London and throughout the Kingdom. Sold in suitable size Tins for family use.

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Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, PULLNA, FRIEDRICHSHALL, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

The Mineral Water of Geilnau (Nassau), an Acidulous and slightly Alkaline and Chalybeate Water, of very agreeable and refreshing taste, owing to its large proportion of carbonic acid; a valuable Dietetic Beverage in many morbid tendencies through its antacid, diuretic, and tonic qualities.

Specimen and analysis of the Water may be obtained from Messrs. BECKER and JUNG (Ems), the appointed Agents, 9, Rood-lane, Fenchurch-street, E.C., London, who supply also the other German Mineral Waters.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.
VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.
VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

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See Pharmaceutical Journal of May 1, 1856.

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The Syrup of the Superphosphate of Iron, Quinine, and Strychnine,

Has been pronounced by the highest Medical authority to possess tonic powers far exceeding all other preparations. It is always uniform in character, and has never been known to produce any unpleasant symptoms, due to its careful mode of preparation. This Syrup has been prescribed both at home and abroad for more than ten years. Its composition is as follows:—*Two grains of Iron, one grain of Quinine, and the thirty-second part of a grain of Strychnine to each fluid drachm.*

Prepared only by CURTIS & CO., Pharmaceutists, 48, Baker-street, London, W.

TOWLE'S CHLORODYNE.

In Bottles, 2 oz., 2s. 9d.; 4 oz., 4s. 6d.; 10 oz., 11s., stoppered.

LIQ. CHLOROFORMI CO. (VEL) CHLORODYNE SINE OL. MENTH. PIP.

2 oz., 2s. d.; 4 oz., 4s. 4d.; 8 oz., 8s., stopped.

The Medical Profession will find in the above Preparations all that can be desired. A good Chlorodyne of uniform strength, and miscible with water.

Proportions—Morph. Mur., half a grain, } In One Fluid
Tinct. Cannab. Ind., min. v., } Drachm.

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A. P. TOWLE, CHEMIST, MANCHESTER.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON BICHLORIDE OF METHYLENE AS A GENERAL ANÆSTHETIC.(a)

Gentlemen,—In reopening my course of Experimental and Practical Medicine, I might, following the example of the large Medical schools, deliver a general introductory lecture treating upon the past failures, the past triumphs of our art, the hopes and the promises of the future. But my hands are too full of the immediate practical to allow me to indulge in this inviting labour; and, indeed, I doubt if I could add to what has been already spoken by so many, and so well. I therefore plunge at once into the practical by calling your attention to the new fluid which I now send round, and which is known as the *bichlorids of methylene*. I may state at once that this fluid is a general anæsthetic, and it is of its properties as such that I would specially speak.

It is, I think, fair to say that by local anæsthesia we entirely avoid the dangers of the general process; and I believe I am safe in saying that no general anæsthetic yet discovered can be considered free from danger to life: in other words, it is impossible to bring every person to the extreme of general anæsthesia without running a certain risk of the temporary death lapsing into the death absolute. At the same time it must also be candidly admitted that local anæsthesia does not in every instance take and fill the place of general anæsthesia. There are certain moral or psychical considerations which stand greatly in the way of the local method. We constantly meet with patients who so dread the knowledge of the performance of an operation that they prefer the oblivious risk of general anæsthesia to the safe consciousness of the doings of the operator; and, again, there are operations in which the operator requires the unconsciousness of the patient. It behoves us, therefore, while using the local method when and wherever it is practicable, to study still the general method, so as to make it safer than it now is, if that be possible. The large number of deaths from chloroform renders such an inquiry urgent at the present time; for these deaths cannot, I think, of late be computed at less than one in fifteen hundred administrations—by no means a small mortality. Whether the new anæsthetic now to be introduced will in the end reduce this mortality, experience with it only can decide. I speak of it, therefore, with all the caution that should surround a question involving interests of the most solemn kind, and I speak of it with an experience before me which cannot be too keenly estimated. Dr. Snow, than whom no man living knew more of anæsthesia, both in theory and in practice, thought that in the substance known as amylene he had found the substitute for chloroform. More than two hundred safe administrations confirmed him in that view, and then two deaths from the agent broke up all his hopes, and caused him, as I well know, the most severe anxiety. For aught I can tell, this same bad fate may attend on the bichloride of methylene, or on any other similar agent; it might attend chloroform itself. We must not consequently cease our efforts to find a safer anæsthetic; but when, by experiment, a new anæsthetic is found, and when also, by repeated experiment on animals, such an anæsthetic is discovered to be as safe or safer than chloroform on animals, we are bound to make its properties known, and to accept the responsibility of using it for the relief of the suffering of man himself. It is under the influence of these convictions that I now bring forward the bichloride of methylene. I shall show you simply what experiment has taught me; the results I shall leave to time, hoping only for the best.

That we may have before us certain definite points of study in this lecture, I shall invite you to move with me to consider—

1. The position of bichloride of methylene in the series of organic bodies, and its physical properties.
2. Its power as an anæsthetic.
3. Its power as a destructive agent, and the pathology induced by it.

Position of Bichloride of Methylene.

The bichloride of methylene belongs to the class of chemical organic substances known as the "Monocarbon series." The labours of the modern chemist have enabled him to separate organic bodies, such as this, into certain divisions, greatly to the illustration and simplification of the science. In making his divisions, the chemist recognises as preliminary facts—first, that every body of the organic type is built upon the element *carbon;* and, secondly, that this element possesses the property of combining with itself, by which property it is enabled, by the combinations it makes with other elements, to produce distinct series of compounds, which are classified, in accordance with this rule, into Monocarbons, Dicarbons, and so on. In illustration, let me write down the names of the first five series:

The *Methyl* series. In this the carbon stands as *one*—C.
The *Ethyl* series. In this the carbon stands as *two*—C_2.
The *Propyl* series. In this the carbon stands as *three*—C_3.
The *Butyl* series. In this the carbon stands as *four*—C_4.
The *Amyl* series. In this the carbon stands as *five*—C_5.

And so on up to the melisyl series, where the carbon stands as C_{30}.

The fact of the multiplication of carbon in these series is brought strikingly before us by a simple experiment. Every one of the groups above named, as well as each of the higher groups which we have not followed, possesses an analogous compound called an alcohol. The alcohols, in fact, are those bodies which first come nearest to hand from Nature herself, and from which the chemist has commonly started in the course of discovery. We have before us at this present moment the alcohols of five series. We have methylic alcohol, or, as it is commonly called, wood spirit—naphtha; we have ethylic alcohol, the ordinary alcohol of the table; we have propylic and butylic alcohols; and lastly, we have this peculiarly odorous alcohol, the amylic, or fusel oil—potato spirit. I want to show you that in every one of these there is a difference of carbon. I therefore take five ordinary spirit lamps, and trim them with fresh wicks, and charge them respectively with these alcohols. Having done this, I set the lamps alight, and test the different flames. The methylic lamp burns with little light and no smoke. I hold over the flame a white plate, and there is no carbon. The ethylic lamp yields to the plate the faintest trace of darkness, a little carbon that has not been consumed. The propylic and butylic lamps, with their cloudier flames, yield much deposit: while the amylic lamp, burning dull and heavy, its light peering as it were through smoke, yields as much unconsumed carbon as suffices to cover the surface of the white plate in a few seconds.

In combining with other elementary bodies to produce the groups or the families of the organic series of which I have spoken, the carbon forms first an union with hydrogen, by which there is produced a new and basic substance called a *radical*. The radical once-formed compounds can be made upon it just as compounds are made on the bases of the inorganic world; as chlorine, for instance, in combining with the base sodium, produces the compound called chloride of sodium.

The monocarbon group of bodies with which we have today to deal affords a good illustration of all these facts in detail. When the carbon in this series combines with three atoms of hydrogen, it produces the radical methyl CH_3, from which various compounds may be made. For sake of clearness, I will place these compounds before you in order and in the tabular form.

Radical methyl, CH_3.

Compounds.	
Hydride of methyl (marsh gas)	CH_3H
Chloride of methyl	CH_3Cl
Iodide of methyl	CH_3I
Bromide of methyl	CH_3Br
Fluoride of methyl	CH_3Fl
Cyanide of methyl	CH_3CN
Nitrite of methyl	CH_3NO_2
Methyl alcohol	$\left.\begin{matrix}CH_3\\H\end{matrix}\right\}O$

(a) Delivered on Tuesday, October 8, 1867.

In these compounds you will perceive that the radical methyl remains always the same, CH_3, and all the new compounds, hydride, chloride, and the rest, are made by the direct addition of an element to the radical. The compounds are, in fact, salts of the radical. If I were to describe the ethyl series or the other series, I should be able to illustrate this same rule, but I must pass now to a further point—viz., to the production of a different series of substances by what is a true change in the construction of the radical itself. The monocarbon series will serve us for one more illustration, and the illustration will bring us, by a natural and easy stage, to the particular substance which is now the object of our learning.

We start, then, with the first compound on the table I have just written—viz., the hydride of methyl, or marsh gas. This, as we have seen, contains the radical methyl in combination with one atom of hydrogen. It may be represented as CHHHH.

In this compound the carbon molecule, or smallest combining part of carbon, is said to be saturated with hydrogen—that is to say, it will combine with no more. But if marsh gas be acted upon by chlorine a change, or rather a series of changes, is induced, leading to the formation of new and distinct compounds: I mean the chlorine can be made to replace the hydrogen or become substitute for it, and, according to the character and extent of the substitution, so is the product. For example:—

(*a*) One part of the hydrogen can be replaced by one of chlorine: then we have the radical methyl CH_3 combining with chlorine, and the result is *chloride of methyl* CH_3Cl.

(*b*) Two parts of the hydrogen can be replaced by chlorine. In this change there is no longer the old radical methyl CH_3, but a new radical *methylene* CH_2, and this new radical is combined with two of chlorine. The resultant compound, therefore, is the *bichloride of methylene* CH_2Cl_2.

(*c*) Three parts of the hydrogen can be replaced by three of chlorine. In this change there is no longer the radical methyl CH_3, nor yet the radical methylene CH_2, but a new radical CH *formyle*; and this new radical is combined with three of chlorine. The resultant compound, therefore, is the *terchloride of formyle* $CHCl_3$, common chloroform.

(*d*) The whole of the hydrogen may be replaced by chlorine when the radicals of carbon with hydrogen are expunged altogether. The resultant compound is the *tetrachloride of carbon* CCl_4.

Thus, step by step, new bodies can be constructed out of marsh gas, from the chloride of methyl to the tetrachloride of carbon; and conversely from the tetrachloride of carbon the changes may be carried back again to the reconstruction of marsh gas.

To keep to our chlorine compounds, we have, then, in view four bodies thus composed:—

C H H H Cl . . .	Chloride of methyl
C H H Cl Cl . . .	Bichloride of methylene
C H Cl Cl Cl . . .	Terchloride of formyle
C Cl Cl Cl Cl . . .	Tetrachloride of carbon.

By keeping these brief facts in mind, the position of the bichloride of methylene in this organic series will be easily remembered.

Before I leave these substances as thus grouped together in their chemical place, let me say of them that they all possess the power of producing anæsthesia when they are inhaled as vapours by men and animals. That the two latter of them have this power—I mean chloroform and the tetrachloride of carbon—is well known, but that the two first on the list also exert the same influence is new as a scientific fact. I discovered that chloride of methyl was a certain and gentle anæsthetic in July last, and this led me to hope that something more stable and manageable could be obtained—something that should stand between the chloride and chloroform. That substance is now found in the second body of the group—the bichloride of methylene. That this, like the chloride, would produce rapid, safe, and easy general anæsthesia, I discovered by experiment on August 30 of the present year.

(To be continued.)

Inoculation of Glanders.—M. Guyon's late experiments prove—if proof were required—that glanders may be inoculated into the horse from man as well as into the human system from the horse. He introduced the matter into the veins.

ORIGINAL COMMUNICATIONS.

REPORT OF A CASE OF

ENCEPHALOID DISEASE OF INFERIOR MAXILLA

SUCCESSFULLY TREATED BY EXCISION OF THE JAWBONE FROM LEFT ANGLE TO RIGHT (SECOND) BICUSPID TOOTH.

By JOHN D. HILL,
Surgeon to the Royal Free Hospital.

In some cases of cancerous disease connected with bone, operations appear to be justifiable, when the morbid growth is seen to arise from bony structure and its boundaries are defined, by its growth and development important organs are encroached upon, their functions disturbed or arrested (by atrophy of structure or mechanical pressure), and where life is in more immediate danger from severe and repeated attacks of hæmorrhage. Under such circumstances excision of the diseased structure seems to be a means of prolonging life. The following case appears to represent a fair example of the benefit produced by operative proceedings in this stage of the disease. The patient was the subject of encephaloid cancer of the lower jawbone of five months' duration. The disease commenced in the alveolar process of the bone and sockets of the teeth, extending outwards, inwards, forwards, and backwards; during its progress all the teeth in the affected part became dislocated. Externally the muscles of mastication became embarrassed, the cheek pushed out, and the mouth drawn to the affected side. Internally the tongue was pressed backwards and upwards, and the floor of the mouth encroached upon. In front the tumour extended to the second bicuspid tooth of the right side; behind it reached as far as the last molar tooth. The difficulty which the patient experienced in the process of mastication in the earlier stage of the disease, and latterly the dysphagia and the hæmorrhage, had reduced him to such a state of emaciation that some operation seemed necessary for alleviating his miserable condition. For this purpose the diseased mass was removed, with that portion of bone to which it was attached; the wound healed in great part by adhesion, and the patient progressed without a bad symptom. In good health, and with but little disfigurement, he was discharged within five weeks from the date of the operation. The following are the notes of his case:—

Wm. G., aged 41, by occupation a wood-turner, was admitted into the Hospital August 7, 1867, in consequence of a tumour of the lower jaw. Family history good, and, with the exception of a few common ailments, had enjoyed the best of health. About five months previously felt a small lump on the left side of the lower jaw below the molar teeth, which steadily increased for six weeks, when his teeth became loose and pushed out of place. Came to the Hospital, and had several extracted. Was subsequently lost sight of, from irregularity of attendance, until a short time previous to his admission into the wards. By this time the tumour was of considerable size and rapidly increasing, soft and spongy to the touch, very vascular, but not painful; it affected speech, deglutition, and mastication in particular. It pushed out the cheek on the left side, extending backwards as far as the last molar tooth, inwards beneath the tongue, and forwards as far as the second bicusipid tooth of the right side. The tumour appeared to spring from the sockets of the teeth and alveolar process extending towards the base of jaw, causing absorption of these structures. He was rapidly losing flesh, and, although he always felt hungry, was unable to masticate or swallow sufficient food to do him good. Several attacks of hæmorrhage had weakened him considerably. The microscope detected a variety of cells, amongst which were caudate, bicaudate, and spindle-shaped nucleated cells, with two, three, or four nuclei in each cell blood corpuscles and epithelial scales. Having consented to an operation, on August 12 I proceeded to excise the diseased jawbone in the following manner. Chloroform having been administered, and the tongue secured with a ligature passed through its substance, I commenced an incision at the posterior border of the left ramus of the jaw, carrying it downwards and forwards to within an inch of the anterior border of the right masseter muscle. Next I made a vertical incision in the median line, dividing the lower lip, and meeting the horizontal incision at a right angle. The flaps having been dissected back, all the vessels, which were rather numerous,

were ligatured. Next the first bicuspid tooth was extracted, and the chain-saw passed round the bone, which was sawn through; in a similar way, the bone was sawn through at the angle of the jaw. The anterior extremity of the bone having been seized as a fulcrum, the knife, with two or three sweeps, separated the whole mass from its muscular attachments. The vessels were secured, and the ligatures brought out at the inferior extremity of the median incision; the edges of the wound were approximated with ordinary sutures, and the vertical incision by harelip pins. The patient was then removed to bed, and not allowed to speak or swallow food for eight days, being fed by nutrient enemata. He communicated his wishes by means of a slate and pencil. The whole line of incision had healed by adhesion, excepting where the ligatures protruded, in forty-eight hours, when the sutures were removed.

On August 23, eleven days after the operation, the last ligature separated, and on the 24th he got up for a short time and began to take liquid food. From day to day his health improved, and he soon made himself tolerably well understood, as the cicatrix became firm, and the labial and lingual expressions more decided. He left the Hospital on September 11 in good health.

As to the ultimate issue of this case, in all probability the disease will recur at some period, but I hope the operation has been the means of prolonging the patient's life. A further report will be inserted at a future time.

17, Guildford-street, Russell-square.

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
Surgeon and Pathological Anatomist to the Royal Free Hospital.

No. IV.

Subcutaneous Primary Adhesion.—Reparation of Simple Fracture and Dislocation in the Treatment of these Lesions.

The distinctive character of pathological treatment is evinced, not only by peculiar rules of treatment, in point of time, kind and amount of assistance responsive to the natural courses and tendencies of morbid conditions; but also by the equally distinctive associations and classification of the conditions themselves, according to their purely pathological affinities of *vital* history.

Simple fracture and similar dislocation are thus, severally, allied to incised wound and wounds of arteries and veins, as considered in former communications, not as lesions having any affinity of structural condition, but, in virtue of the textures, whether incised or lacerated, alike undergoing the same process of reparation, *essentially*—primary adhesion. Empiricism, or the suggestions of experience alone, can have no such general *laws* of science and dependent art of Surgery. The careful study, therefore, of one such allied lesion—as to its vital history, in relation to the appropriate treatment—is a *type*, which by analogy enlightens the Surgeon respecting the whole class to which it belongs. Hence, also, in favour of pathological practice, we are fairly enabled to shorten our consideration of many lesions, which are thus allied to a representative type, without omitting any essential consideration. All that relates to the treatment of an incised wound, for example, pertains, *mutatis mutandis*, to that of both the lesions I have now to notice.

As usual, I shall first describe the guiding elements of their pathology.

Simple fracture is disposed to unite by a modification of the process of adhesion, with osseous consolidation of the union, unaccompanied by inflammation. The fracture of a long bone may be taken as a general example. Any damage done to the surrounding soft textures, and the temporary extravasation of blood, are concomitants of fracture, not pertaining to the lesion itself. But the precise kind of injury to the bone is a primarily important fact in the history of reparation. The medullary web, endosteum, is torn, and completely across in most instances; the periosteum is rarely much damaged. It is seldom, according to Mr. Paget's observations, stripped off the broken ends. Commonly, it is cleanly rent across at the same level as the fracture, and maintains its close union, having only its fibres somewhat frayed or pulled from their natural direction. Sometimes it remains entire, even with extensive fracture, and in this case, thickening, it contributes to the security of the repair of the injury.

Inflammatory lymph, in small quantity, is first exuded round about the seat of fracture, rendering the cellular texture more succulent, and thus producing a swelling, which, however, is at least partly due to the blood extravasated by the injury. This mixed swelling gradually subsides, the exudation of lymph not continuing later, in most cases, than the second or third day. A period of inactivity succeeds, of uncertain duration, but which, in the adult, is rarely less than one week or more than two. Then the proper *reparative* or ossifying lymph begins to flow. A layer of this lymph is deposited between the fractured ends of bone, which, undergoing development into fibro-cellular tissue, or perchance into cartilage, and thence, in either case, into bone, restores the continuity of the fragments, forming an intermediately connecting layer of bone—an "intermediate callus." This is the *only* callus, whether the fragments be in even apposition or overlap. The full sufficiency of an intermediate callus was beautifully illustrated in an oblique fracture of the great tuberosity of the humerus and part of the shaft, as represented in the annexed figure (Fig. 1). The precise date after fracture I am unable to state, but this is comparatively unimportant, observing the well-defined sharp margin of the fragment, faithfully shown in the engraving—an appearance which is never produced by the most complete absorption of any external callus. Neither an "external" nor an "internal" callus is produced in the *human* subject, as was formerly supposed, excepting when the fractured limb or part is subjected to unusual motion during the process of repair, or when the original bone is diseased. Then, indeed, lymph-forming callus may be thrown out around the seat of fracture, ensheathing the fragments as with a bony clasp, and formed also as a peg within the medullary canal. The lymph deposited in either of these situations speedily undergoes ossification. Around the bone this process is chiefly or solely by outgrowth of bone from either fractured end, and extending gradually towards the plane of the fracture, this part of the callus is last ossified. Within the medullary canal ossification proceeds about the same time, consolidating the cancellous tissue of the fragments, and at a later period uniting them. The walls remain still longer disunited. Either callus thus placed is formed *some time before* the intermediate lymph begins to ossify.

Fig. 1.

The new bone—wherever placed, between, around, or within—is true bone, and appears soon to acquire its proper microscopic characters. A new periosteum also is produced. At first firm, thin, and distinctly lamellar, it gradually acquires toughness and compactness of texture.

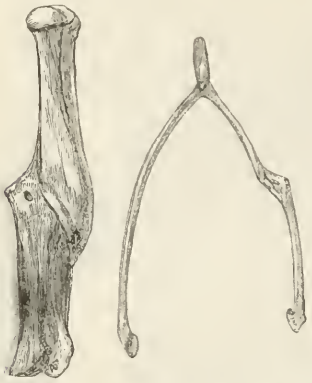
But the external and internal callus, when present, are *provisional* and *temporary*. They serve the purpose of two natural splints to retain the fractured ends in apposition while the intermediate callus is forming. When no longer requisite for this purpose, they are gradually withdrawn, the bone being fashioned off by absorption, and finally restored to nearly its original symmetry of outline. Little remains in after years to mark the scene of former injury, as if Nature, ever seeking to show her perfect work, were unwilling that any evidence of past imperfection should permanently remain on record.

Thus, then, by a modification of the reparative process of adhesion, as in an incised wound, a simple fracture is reunited, and without regard to the particular direction of this lesion—transverse, oblique, or longitudinal—or the position of the fragments—in even apposition or overlaying; anatomical conditions or contingencies of minor consideration, pathologically and practically.

It is, indeed, most interesting to observe in corroboration of the provisional character of callus, externally and internally, that no such callus may be formed, even when the fragments are constantly subject to motion, as in *animals*. Fracture of

the *furculum* or collar-bone in the common fowl, may thus unite, as shown by an appropriate and perhaps unique specimen in my possession (Fig. 2). Union of a fracture of the thigh-bone in the same species of bird is also represented in the figure. Much thickening of the bone has occurred at the seat

Fig. 2.



of fracture in this case, but no external callus, the sharp margin of the original fracture—an oblique one—being plainly seen at the line of junction by an intermediate callus, the only bond of union.

Treatment.—Earliest Occasion for Assistance.—Immediately after fracture the occasion for Surgical interference arrives, obviously in order to prevent any further damage to the surrounding soft textures by any motion of the hard and rough portions of bone, subject to muscular action or other movement of the limb. This necessity will be the more urgent in fracture with displacement simultaneously, and if the ends of bone are pointed, as in oblique fracture. The old rule of treatment, to postpone any attempt to *set* the fracture, at rest, until after the swelling consequent on the injury had subsided, or been subdued by topical "antiphlogistic" measures, was an utterly unpathological injunction, the cause of increasing swelling still remaining in operation. But, remembering the period of inactivity for a week or two succeeding the effusion of inflammatory lymph in the first instance, the *final* adjustment of any irregularity of position is unnecessary or useless until about the termination of this period, and when reparative lymph begins to flow.

The *kind* and *least* amount of assistance are still in accordance with the nature and provisions of the reparative process. The reduction and coaptation, or setting of the fractured ends of bone in adjusted apposition, is an indication of treatment obviously requisite for the commencement of osseous adhesion, and equally necessary must it be to maintain such apposition by some retentive appliance, to ensure rest during the process of reparation.

But, as pathology appoints the period for the setting and final adjustment of the fracture, so now its guidance is superior to any empirical knowledge in regulating the amount of interference from time to time. The reparative lymph remains *pliant* for some days or weeks, and, as connected with the living bone, is *self*-constructive, and adapting in its provisions of *quantity;* unlike the sudden and passive setting of any inorganic concrete or cement, and which is without increment, in any artificial mode of adhesion. During this process of reparation, therefore, the pathological Surgeon is ever watchful, never meddlesome, as regards the correct coaptation of the fragments, and the consequent length and shape of the limb.

Absolute rest of the fractured part is not essential to union without displacement, and this suggestion of pathology will regulate the degree of security requisite by any form of artificially retentive apparatus. Every *trivial* displacement, also, of the splints and bandages need not be readjusted, for callus is thrown out and so placed as to meet such exigencies. At length the proper time arrives when these appliances may be exchanged for an "immovable apparatus." When all chance of swelling has passed, and spasmodic muscular action has ceased, and soft union is established, then only is the application of a "starched bandage" safe and advantageous. This suggestion is, I believe, at variance with the practice of Professor Erichsen, who advocates the use of a starched bandage at almost the *earliest* possible period after fracture, alleging that it takes the shape of the limb "accurately and readily," and retains the shape by virtue of its "solidity." But these very characters of the starched bandage are, in my opinion, the most valid objections to its application at that time. I am accustomed thus to fix the limb immovably only when it no longer needs watchful supervision. Supported by such a bandage, the patient can then move about at a much earlier period than otherwise—a great advantage in relation to the general health, as compared with prolonged confinement in the treatment of fracture. The period for the *completion* of osseous consolidation is uncertain, varying with many conditions, local and constitutional. The influence of some of these conditions has yet to be determined by further investigation. Hence the removal of any retentive or supporting appliances must be apportioned to the progress of osseous consolidation. Thus, as in the management of an incised wound, the artificial support of fracture is gradually withdrawn, and the limb or part allowed to resume its functions as gradually, until at length unaided nature can stand alone.

Simple dislocation is analogous to simple fracture in its natural course and tendency, the lacerated textures re-uniting by primary adhesion, without inflammation. Thus allied, the vital history of these lesions differs only in the sequel, if the textures remain disunited and the dislocation persistent. The reparative process in the one case, and the other, is as follows:—

The torn ligaments and tendons, if any be ruptured, are readily reunited by the effusion of plastic lymph, which speedily passes into fibrous tissue, through the medium o nucleated blastema, as in all other instances of subcutaneous adhesion. The superfluous reparative material and extravasated blood are absorbed, and the concomitant swelling subsides. The joint is ultimately restored to nearly its originally perfect construction.

If the bone remain dislodged from its natural articulatory surface or cavity, then a new joint is constructed, the mechanism of which, however, is more or less complete, according to the kind of texture on which the bone has found a resting-place. If lodged on muscle, it gradually burrows for itself a convenient nest, the two surfaces become mutually adapted to each other, and, a capsular ligament being formed of condensed cellular texture, an imperfect joint is established. But if the displaced bone be lodged on bone, this loses its periosteum, and that its articular cartilage; a receptacle is excavated suitable to the impression of the articular surface; a bony rim or lip is thrown up by the periosteum around the margin of this newly formed cavity; the surrounding cellular texture, moreover, becomes condensed into a capsular ligament, which further provides against any displacement; and thus a far more perfect joint is constructed. In either case, the muscles which act on the dislocated bone retain it in its new position, and, becoming permanently shortened, their lines of action get accommodated to the displacement. The track through which the head of bone passed is now filled up with plastic lymph, and the ligaments, perhaps, have become adherent to the neck of the bone; the original articular cavity loses its cartilage and closes in, undergoing also partial obliteration by a dense fibrous deposit. This articular transformation is well shown in specimens—rarely procured—of unreduced dislocation of the hip-joint. Implying, as it does, an irretrievable sacrifice of the articular cavity, the work of destruction, in any case, proceeds very slowly, Nature thus effacing the original articulation reluctantly. The pathological treatment of dislocation is but a response to the requirements of the reparative process from first to last.

The *earliest period* for most advantageously bringing the torn textures together by the reduction of dislocation is, however, determined rather by the fact—still a pathological condition—that immediately after this kind of injury, and for a short period, the muscles are powerless. Subsequently their tonic contraction comes into operation, completing the displacement and fixing the limb. Availing himself of the period of muscular paralysis, Liston reduced a dislocation of the femur on the spot without pulleys, or even the aid of an assistant. Every Surgeon must have had opportunities of experiencing a similar advantage in other dislocations. I need scarcely observe that protracted delay proportionately precludes replacement—a new joint forming and the old one

undergoing obliteration renders replacement impracticable, impossible with safety, or useless.

The *kind* and *least* amount of assistance required on behalf of dislocation is analogous to that for fracture—reduction of the bone to its natural position, and maintaining it there by some retentive appliance, during the process of adhesion in the textures which have been torn. The ligaments and tendons around the joint are here the chief subject of such reparation, instead of the bone itself.

But, unlike fracture, the reduction of dislocation is accomplished, pathologically, by retracing the *course* which the bone has taken back to the point where aberrant muscular action began to operate. Coaptation is then effected, simply by the tonic contraction of the muscles, thus acting on the bone in position.

The maintenance of coaptation is readily effected by the same agency, with but little retentive assistance surgically. Slight restraint with a bandage will generally be sufficient to prevent the recurrence of dislocation, by counteracting any motion of the joint, as yet unsecured by its natural ligaments, during the course of their adhesion. Connecting the limb with the other, by a few turns of bandage above the knee, is sufficient restraint after the reduction of hip-joint dislocations. The arm is applied to the chest in like manner, in the case of shoulder-joint dislocations. A shallow joint and naturally loose ligaments, weak flabby muscles, or the relaxation consequent on repeated dislocation, are considerations which render a little extra security requisite in any case.

Ample time, also, must be allowed for the process of reparation, failing which the joint will be permanently weakened, and ever liable to redislocation; passive motion being used occasionally to prevent the tendency otherwise to some degree of anchylosis with permanent stiffness, and the irretrievable loss of muscular power in the limb.

In thus conducting the vital history of dislocation to restoration of the joint, pathology enlightens, guides and regulates the Surgical treatment, concurrently.

THE LATE EPIDEMIC OF TYPHUS IN BRISTOL.

By D. DAVIES, M.R.C.S.,
Medical Inspector of Health for Bristol.

This city, which has now for ten years maintained the lowest annual death-rate of all cities in the United Kingdom, has never, so far as I can ascertain, been distinguished for the prevalence of continued fever. Nevertheless, we are never without a few cases of typhoid, otherwise called enteric or intestinal fever, and occasionally we have been visited in an epidemic form by maculated typhus. It is with this latter form, and more particularly with the epidemic which reached its climax in the winter of 1865, I have now to deal. I have reason to think that, upon inquiry, it would be found that this disease has been introduced here, on every occasion, either directly or indirectly from Ireland, which seems to hold the same relation to it as India does to cholera. The epidemic of 1847 and subsequent years happened previous to my acquaintance with the city.

In the autumn of 1862, a few well-marked cases of this disease occurred in Water-street, St. Paul's, and the neighbourhood. It was recognised by Dr. Martyn, at the General Hospital, who read an able paper on the subject before the Bath and Bristol Branch of the British Medical Association, and also by myself. It lingered in that neighbourhood until the spring of 1863, one of the last attacked being my own pupil, who resided in my house. This gave me an opportunity of studying the disease in which my personal anxiety would equal my scientific interest. For about a year Bristol seems to have been free from any cases of this disease. Whether any presented themselves at the two great Medical charities of the city, I do not know; though Dr. Beddoe had a case at the end of March, 1863, in an Irishman who had walked from London and been taken ill on the road.

In April, 1864, Dr. J. St. J. Parson, of the Old-market, attended an Irish family living in an overcrowded room in Bread-street, St. Philip. He recognised their disease as a well-marked form of typhus. This is, therefore, the starting-point of the late typhus epidemic. In the following May, cases of the disease came under the notice of the late Mr. Mayor, Poor-law Medical Officer of the district. It spread over every court, and most of the houses in Bread-street; it then, in an indirect and rather circular path, crept into St. Jude's. Cases of it presented themselves during the summer and autumn at the Royal Infirmary. It soon proved its distinctive characteristic of infectiousness, so much so that the Faculty of that institution were finally forced to the resolution of admitting no more cases of it. The numbers in St. Jude's increased so rapidly that every house became a lazaretto, there being no institution in this rich and charitable city for the special reception of infectious diseases. In this district it reached its climax in December and January, 1864-65. A certain number of the Medical staff of the Infirmary called the attention of the charitable citizens to the deplorable state of things in St. Jude. A depot for the supply of food, bedding, and nurses, was established in the district,(a) and finally the temporary Fever Hospital was erected, which, with isolation of the sick and disinfection, stopped the progress of the disease, and reduced the number left in the city on June 8, 1865, to three cases.

The Fever Hospital having been now removed, these three cases formed the nucleus of several smaller waves of the disease, which, through careful watching and isolation (where possible), have not assumed the dimensions of the St. Jude epidemic.

It is impossible for me to give accurate statistics of the deaths and attacks of this fever. From the returns received I consider the deaths to amount to about 150. I have no means of getting at the number of attacks, but I am quite certain we should not overrate them by multiplying the deaths by 10; this would give the approximate number 1500.

I have thus rapidly sketched the history of this epidemic here. It would be superfluous for me to attempt to describe this fever, which has been so well done in most of the recent works on Medicine. I will, therefore, dwell only on some of the points which, in the opinion of many members of the Profession, are still *sub judice*. I will give them in the form of short propositions supported by facts observed.

Typhus is distinct in species from typhoid. These two diseases up to a late period were spoken of as different forms of the same disease. It is true that glimpses of the truth had broken on some advanced observers for a considerable period, but it is only recently that the fact has been acknowledged by the compilers of our text-books, and the full acknowledgment of the truth by the majority of the Profession has not yet taken place. The result is, that the words typhus, typhoid, and gastric are employed in such a confusing and capricious manner as to defy any individual to collect statistics of much value except he depend on his own observation and judgment. In passing I may here state that I have found severe forms of typhoid fever returned as typhus; mild forms of typhus returned as gastric. From this hazy and wavering nosology, views most damaging to the interests of society have been advocated by eminent members of the Profession. Some having only seen typhoid fever, with its lesser and more manageable degree of infectiousness, and believing it to be identical with typhus, advocate strongly the admission of the latter into general Hospitals. The frightful mortality which has in many instances resulted from such a course they attribute to accidental circumstances. Others, concentrating their attention on the infectious nature of typhus, object to congregating them in any manner, and thus would deprive us of the only means we have of preventing the spread of the disease among the community—viz, isolation. But to return to our subject—*the distinctiveness of the disease.* An attack of typhoid is no preservative against typhus. During the late epidemic several parties who had passed through typhoid were attacked with typhus. I will adduce two instances:—A woman, named G., was discharged from the temporary Fever Hospital, having been there for six weeks ill of typhoid. Within a week after her discharge she sickened again with symptoms of typhus She had a well-marked mulberry rash; was sent back to the Hospital, where she passed through every stage of typhus. Mr. Board, of the Royal Infirmary, informed me of a patient at that institution who first had typhoid, immediately on convalescence he had typhus, and, last of all, the small-pox, from all of which he recovered.

It observes a critical period, of which fourteen days are the average. In most of the cases this was well marked. Again and again have I thought a patient to be moribund on the twelfth or thirteenth day, having coma vigil, starting of the tendons, muttering delirium, etc. When I have called on the fifteenth or sixteenth day, I have found him almost convalescent. In this respect it differs materially from typhoid. It is very properly called, in Ireland, the "fourteen-day fever." It

(a) The writer of this was appointed Medical Inspector for the city.

frequently assumes a very mild form, without petechiæ or any characteristic symptom, but this mild form is capable of communicating the disease in a malignant form. It was common in St. Jude's for people to say they had had a touch of the fever. At first I was incredulous, but finding that these mild cases infected others at a distance, I was forced to believe. I will give two instances. A family of children, in Euston-road, passed through a mild attack of what was called there gastric fever. A young woman, living nearly opposite the Bristol Infirmary, one Sunday afternoon visited them, and nursed one of the children for two hours. Eight days afterwards she sickened, and had the disease in the same mild form. She came under my notice with a well-marked typhus rash. She recovered. Her mother then sickened of well-marked maculated typhus, and died. A working man, in Park-square, Lower Lamb-street, was slightly indisposed for a fortnight, but never kept his bed. A nurse at the Bristol Infirmary, his sister, used to visit him; she contracted the disease, and was removed from that institution with typhus. I could multiply instances.

The shortest period of incubation is about eight days. A Norwegian ship came here from Onega; there was no fever at that place or on board. The first night after their arrival here the sailors visited some fever nests; four of them sickened eight days after the ship's arrival. I could multiply instances of this period.

The incubative process may be passed through, and the disease not take effect until some cause of a depressing nature calls it into action. A man named B., 20, Lamb-street, had fever in his house for three months. Three members of his family had died; his wife had passed through it, and he had escaped. He took a severe cold, with bronchitis; I saw him, found that he had no symptom of fever, but from previous observation prognosticated an attack. On convalescence from his bronchitis, well-marked symptoms of fever came on, with petechiæ; he was removed to the temporary Fever Hospital, where he died.

The driver of the Hospital ambulance had for several weeks escaped fever, although handling fever patients daily. One Sunday evening, after removing fever patients, he drank to excess, and came under my notice on Monday with the symptoms of a past debauch. I prognosticated fever; he sickened, next day was removed to the Hospital, had a well-marked attack, and recovered.

During the early stage the disease is but slightly, if at all, infectious. Whenever we have been able to remove the first fever patient from a house within the first week, the disease has never spread. If allowed to reach the convalescent stage, removal answers no purpose in a sanitary point of view without other means being taken to prevent infection. Instances of this are too numerous to mention.

A patient whose intellect has been cultivated, or whose brain has been habitually excited with drink, is the least likely to recover. This has been well illustrated in this city. The deaths of three members of our Profession, of one scripture-reader, and of several skilled mechanics, illustrate the former part of the proposition, whilst the death of almost every drunkard attacked illustrates the latter part of it.

The infecting germs are lighter than air, and ascend. We have found that a single case of fever on the ground floor will always infect the whole of an overcrowded house if not removed, but a fever patient may be easily isolated on the top story of a house without danger to others.

The infecting germs retain their vitality for several months. I have observed several cases of fever where the disease has broken out among the recent inmates of a room in which fever had existed three months before. I have seen several instances of this. It is a very responsible act to declare a room to be safe after it has had a case of this fever in it.

It is a fever which spreads in cold more than in mild weather. This is so well known that I need not give in detail the proofs of it.

The maculæ varied in size in different cases, from minute points to an almost rubeoloid rash, the specific eruption being easily distinguished from the hæmorrhagic spots of purpura.

In extreme cases, hæmorrhagic spots, accompanied with the peculiar mottled skin observed in sea scurvy, appeared. This is to be viewed merely as a sign of degeneration of blood, which takes place in many other diseases. The tendency of the disease is not towards hæmorrhage.

In a large proportion of cases the mulberry spots are not observable.

The severity of the attack is not lessened by a well-developed rash, rather quite the reverse. This I consider an important point.

In two private cases I failed to recognise the disease at an early stage, and administered a powerful diaphoretic, with the result of producing a very copious crop of maculæ of a rubeoloid character; the general symptoms were not relieved, but aggravated. I have avoided this mistake since.

Convalescence is rapid, and there is never true relapse.

Although the diagnosis may be difficult in the early stage, in the advanced stage it is easy, it being readily distinguished from typhoid by the following points:—Infectious origin easily traced; no irritation of the bowels, or loss of form in the belly; short duration and rapid convalescence; maculæ where present; peculiar delirium, etc., etc.

When it attacks pregnant women, they generally miscarry, but recover. Several cases of this nature came under my observation.

Modes of Propagation.—The most certain and the most common is to allow a patient to pass into the convalescent stage in a room frequented by other members of the family. A large number of the working classes in Bristol cook, eat, and sleep in one apartment. A single case of this fever introduced into such a family will invariably propagate itself, and attack each member of the family in succession. The disease soon extends itself to other families in the same house, and the house becomes a centre of infection for a large area, the most distant points of which sometimes extend to villages several miles distant from the city. So well-known and understood is this to our nuisance inspectors that they can now, without any assistance from myself, calculate to a nicety the probable results of a case of typhus when introduced into a new neighbourhood. I could illustrate this mode of propagation by a large number of cases; let one suffice.

Three persons had this fever, in the form improperly called gastric, in Thomas-street, in April, 1865; they were removed early with the rest of the family to Bristol Union Infirmary; the rooms were disinfected and cleaned; it did not spread in the house. A woman named C. had had communication with the family, and removed into Cart-lane, Temple-street. She also had this so-called gastric fever. A family of the name of W. in Pipe-lane had communication with Mrs. C. in her illness; they sickened, and were removed to Stapleton. The family of W. communicated it to another branch of the family in the Dings, St. Philip's (without); hence it spread through all the collateral branches of the family in that neighbourhood. A young boy, a resident of the model lodging-houses, Hotwell-road, slept one night with his aunt, the above-mentioned Mrs. C. He sickened at the model lodging-house. He was not removed early enough to prevent extension of the disease; the result was, the whole family, including seven members, sickened, and were removed to the Bristol Union Infirmary. We then had the room disinfected, cleaned, and for a time shut up. The progress of the disease was stopped in this place. From this head centre (Mrs. C.), over twenty-five cases of fever could be clearly traced. Mrs. C. removed, after her convalescence, to Mark's-court, Avon-street. Here every one that came in contact with her caught the fever, and was removed by the Medical officer of that district to the Bristol Union Infirmary. The usual proportion died. To follow this case in its ramifications would exhaust the patience of the reader. I could give fifty similar instances—but *ex uno disce omnes.*

I would here add that the model lodging-houses in the Hotwell-road are clean; there are no accumulations of manure here, no incestuous congress between moonshine and dung. The whole place is well looked after by the very able manager; yet the disease spread through a whole family because the contingency of infectious disease was not contemplated in the arrangements of the houses.

The second most common and certain mode of propagation is that abominable, unnatural, but most efficient cause of physical and moral disease—a common privy. Wherever a common privy exists, there this typhus fever will rapidly spread. We require no pythogenic theory to account for this. All the excreta of a typhus patient contain the germs of the disease. I attribute the rapid spread of the disease in St. Jude's to this cause. Redcross-street, in the immediate neighbourhood, on several occasions contracted the disease, but it did not spread, because the old Board of Commissioners had, in consequence of the prevalence of cholera here in 1849, ordered the erection of a separate privy to each house. The good effect of the separate privy accommodation was aided by the removal of the cases, this street being part of the Bristol Union, which Board remove all their fever patients into their Infirmary at

Stapleton. I have observed the same result in different parts of the Clifton Union where they do not remove their fever patients. In Bread-street, the Narrow Plain, the Dings, etc., all in the Clifton Union, the disease spreads rapidly through a house, but very slowly from house to house, because, as I consider, they are more isolated in this respect than St. Jude's was at the commencement of the year 1865.

The third most common mode of propagation is by infected clothing. As I cannot expect my *ipse dixit* to be taken unquestioned, I will give in detail one case as an illustration.

A woman, named S., lost a brother in Bread-street. On visiting the corpse, she considered the sheet thrown over it not good enough. She took one of her own, from Newbury's-court, Castle-street, which was then free from fever. This sheet was afterwards brought home to Newbury's-court and washed there. Her two sons, youths of 18 and 15, sickened a fortnight afterwards. When accidentally discovered by me as Inspector of Health, they were reported ill of gastric fever, although covered with a well-marked mulberry rash. They were removed to the temporary Fever Hospital. The whole family fell ill in succession; there were eleven cases in this family, three of whom died, the last that died being the poor woman herself. Time forbids me to follow this case further. It is mentioned merely as an example of many others.

The fourth mode of propagation is by the communication of convalescents or persons visiting fever cases with others. In some instances this communication is direct, sometimes indirect. I will mention one or two instances.

A young cart-driver, living in the Rack-hay, at that time free from fever, had his engaged young woman ill in St. Jude's. He called occasionally to inquire about her; when convalescent, she returned the visits to his father's house in the Rack-hay. A fortnight afterwards, the young man sickened, afterwards in succession his three brothers and mother; they were all removed to the Bristol Union Infirmary, where the mother died. The disease did not extend here beyond the family. Another case.

A Sunday-school teacher visited fever patients in St. Jude's; he boasted of his immunity. He was paying his addresses to a respectable young woman on the Broad-quay. She also returned the visits, and spent one Sunday evening in his company after he had visited fever patients. Eight days afterwards she sickened, was covered with a mulberry rash, was removed to the temporary Fever Hospital, and recovered.

An undertaker who buried the dead of fever at the temporary Hospital had in his employ the late driver of the Hospital ambulances. His wife had a decided attack of typhus, with a well-developed rash.

Although I do not consider the poison of typhus by any means so intense as that of scarlet fever, yet there are instances in which, through some great susceptibility of the constitution, it takes effect apparently very readily, and at some distance. A watchmaker, residing in Alma-street, used to walk through St. Jude's twice a day to and from his work in the Arcade. He fell ill of the disease in a very malignant form, and died. This disease was taken to a clean public-house in the outskirts of Bristol by an errand-boy, a convalescent from St. Philip's. The landlady had the disease in a virulent form. Several cases were afterwards traced to the fact of persons visiting the bar of this house for their evening glass. The smaller publicans and grocers were especially liable to attacks of this disease, as I consider, from their intercourse with convalescents.

A woman, Mrs. H., had the fever in the Narrow Plain. After a time her husband sickened and died. His son-in-law from Dalton Court, Stokes Croft, visited him; he sickened and died. The man H. sickened so slowly that he went for several days to work at a master tailor's in Clifton, who caught the disease and died. A working man living in the same house as H. caught the disease and died. From this single case four deaths and about twenty cases of fever arose. I will not further weary the reader by multiplying instances of infection.

My conclusions on this head—viz, the modes of propagation—are: that typhus, in its varied forms and names of febricula, gastric fever, typhus gravior, and typhus mitior, is the result of one specific poison communicated in one or another of the above modes. I would as soon believe in the spontaneous generation of human beings as I would in the spontaneous generation of typhus. By supplying it with favourable conditions for its propagation, we may multiply it *ad infinitum*; but neither moonshine, nor dung, nor the most rank abominations, although as numerous and varied as the contents of the witches' cauldron in Macbeth, will produce the first germ of this fever.

It were vain to form hypotheses on the origin of it in the far-distant history of the human race. Some of its symptoms, corresponding with those of other continued fevers, may be mere analogues derived from a once common origin; but here all is mist and obscurity. Let it suffice us to know that it is now, and has been during the historical period of our race, a distinct species—that it has its laws and conditions, which it behoves us to study.

Isolation from the earliest stage, with disinfection of the persons and clothing of the disinfected, is the only sure and certain way to extinguish it. It is a disease which exists only on the sufferance of society—a disease which society may, by decided and united action, render as completely a mere subject of historical or scientific curiosity as the megatherium or the dodo.

I do not consider that these views are over-sanguine or visionary. From experience gained as Health Officer for this city, I feel the ground to be firm under my feet; but I am afraid that a long time must elapse before the public in a free country like this, where the liberty of the subject is of more importance than his life, will grant the required legislative enactments.

Treatment.—I may in conclusion be permitted to say a very few words on the treatment of typhus. As a Medical Inspector of the city, the treatment of cases did not fall into my hands, but in that capacity I have witnessed a large number of cases treated in various ways. I am not aware of any medicine that has any specific influence on the disease. Nitro-muriatic acid does no harm; it is possible it may do good. Treatment with alkalies shows an equally favourable termination. No treatment at all is equally successful. I have thought that a purgative administered at the commencement shortens the duration of the headache, so prominent a symptom during the first week, but it does no more. The young and the healthy do much better without stimulants than with them. It is now my firm conviction that stimulants should be very judiciously and sparingly administered, and are only required in the cases of the aged and enfeebled. I have seen a large number recover without any medicine or diet except milk and water, and were I attacked myself I should wish to be treated in the same manner as many of those poor patients in St. Philip's Without. The inference from this is that each case has its individual as well as general specific peculiarities, and that such will be developed in spite of any supposed specific treatment adopted. The proper administration of diet, with proper ventilation, may modify the result, but cannot shorten the process. I have thus attempted to give a summary of this epidemic, in a very imperfect manner. I have only glanced at many important points, each of which deserves an essay to illustrate, and for which, did time allow, I have materials enough in my weekly reports to the Board of Health of this city.

Postscript, October 16, 1867.—The above paper was written some time since, but, from the pressure of other engagements, was never revised or published. I wish to add to the above that this city is now free from typhus, that all our courts are paved, every house supplied with good water, sewers and drains in good order, privies in common done away with so far as is found practicable, all the low level sewers of the city kept disinfected with carbolic acid during the summer and autumn months. The result has been a very extraordinary reduction in our rate of mortality. All this has been brought about by the enlightened and energetic measures adopted by the Chairman and Committee of the Board of Health. One thing we still lack—viz, a Hospital for the isolation of infectious diseases. Without such a Hospital an Officer of Health is performing his duties without his right hand. With the provisions of the Sanitary Act, this, in an enlightened community like that of Bristol, can only be a question of time.

TOLERANCE OF OPIUM.—At the Berkshire Medical Society Dr. Holeomb reported a case of cancer of the rectum in which the patient had commenced the use of opium six months before her death. For some days prior to this she took sixty grains per diem, and never exhibited any symptom of narcotism. Dr. Allen, in a severe case of colic, has given half a drachm of morphia in six hours, the patient recovering. Dr. Adams knew a patient suffering from metro-peritonitis, who took the equivalent of eighteen grains of opium at a dose. —*Boston Med. Journ.*, July 31.

DIARRHŒA, WITH CONVULSIONS, TREATED BY THE APPLICATION OF COLD ALONG THE SPINE.

By J. WARING-CURRAN, L.K Q.C.P.I., L.R.C.S.I.,
Late Demonstrator of Anatomy in the Carmichael School of Medicine, Dublin.

DURING the latter part of August and the beginning of September an epidemic of diarrhœa, with convulsions, and confined to children, prevailed in the neighbourhood of Bexhill. The treatment of seven of the cases comprised the application of cold along the spine, and its results are illustrative of the beneficial effects of the therapeutical method recommended by Dr. Chapman in his practical and exhaustive treatises on the subject. The following is a brief history of these cases:—

E. P., aged 7½ months, was attacked with diarrhœa and convulsions August 21. As the child had been frequently under treatment for constipation, I thought the present disease was dependent on some local cause of irritation, removable by a sudden evacuation of the contents of the bowels. Accordingly I administered a grey powder, followed in twenty minutes by a dose of castor-oil. These produced a copious stool, partly fæcal, partly mucous. The convulsions, however, continued, together with frequent evacuations, which assumed a serous character. I then prescribed dilute sulphuric acid, compound tincture of lavender, and a minute quantity of opium in dill water. At the same time, cold was applied along the spine. Within half an hour the convulsions ceased, and the action of the bowels became less frequent. The cold was omitted, and the convulsions returned the following day with redoubled vigour. On its reapplication they quickly subsided—a result proving that they were directly under its influence. The diarrhœa, though lessened, continued, and the child died apparently of inanition on the eighth day of its illness. On the previous day the cornea showed symptoms of sloughing.

D. E., aged 13 months, was first visited on August 23. The child had suffered from slight diarrhœa during the three preceding days. Convulsions first manifested themselves on the 26th. The child was put in a warm bath, but as he was not relieved, I was sent for. I found him in a good deal of pain, having the characteristic tongue of diarrhœa, quick pulse, hot skin, tenderness over the abdomen, and inaction of the kidneys. He had had eighteen serous evacuations during the preceding twenty-four hours, and was suffering from pretty strong convulsive attacks. I ordered cold to the spine, warmth to the extremities, a calomel and rhubarb powder, followed by a mixture containing gum tragacanth, chalk, opium, syrup, and cinnamon water. There was no return of the convulsions after the cold had been on the spine fifteen minutes; the bowels acted twice subsequently, and then the diarrhœa ceased.

M. A., a girl 2 years and a half old, was attacked with diarrhœa and convulsions August 25. The evacuations contained a large quantity of blood; the convulsions were severe and of frequent occurrence. I ordered cold to the spine, and a mixture of acid and opium. The cold completely arrested the convulsions before I left the patient. The following day an objection was raised to the application of cold, as it was considered by the mother not only extraordinary, but even dangerous treatment. However, a return of the convulsions, and the instantaneous relief derived from the cold, satisfactorily proved to all parties its highly advantageous and beneficial effect. The patient gradually recovered, but is still under treatment for debility.

R. P., the brother of the first-mentioned patient, aged 3 years, was seized with diarrhœa and convulsions. The case resembled in every particular that of his sister. The cold along the spine speedily checked the convulsions, and under a treatment like that adopted in the two previously mentioned cases, he rapidly recovered. The parents lamented that I did not apply the cold to their baby sooner.

J. C., aged 11 months, suffering from diarrhœa and convulsions, was first seen by me September 2. Finding its gums enormously swollen, I lanced them freely, and prescribed an anethic mixture. There being no abatement of the symptoms on the following day, cold was applied to the spine. Its effects were rapidly appreciable; both the diarrhœa and convulsions were arrested by the cold alone.

E. F., a poor emaciated child, aged 3 months, was suffering from diarrhœa and convulsions September 5. Cold was applied to the spine; medicine was sent to arrest the diarrhœa, but before its arrival, as I was informed the following day, both convulsions and diarrhœa had subsided, and the cure was truthfully ascribed to the simple application of the cold alone.

R. L., 9 months old, had been suffering from diarrhœa, convulsions, and constant vomiting during six hours previous to my visit. I ordered cold to the spine, and a mixture of chalk and tragacanth. The convulsions were completely arrested by the cold; only one attack occurred after its application, and the sickness and diarrhœa quickly subsided.

The beneficial effects rapidly produced by the cold, and the results happily obtained, in my treatment of the foregoing cases have convinced me of the great practical importance of Dr. Chapman's teachings, and constitute indisputable proofs that cold applied as he recommends exerts a great remedial power; it not only arrests convulsions with surprising rapidity, but exercises a sedative and specifically curative influence over a disease extremely harassing to both Physicians and relatives, and not seldom terribly destructive, especially when it attacks children. Furthermore, I believe that if, uninfluenced by prejudice, the Profession were to use the spinal ice-bag more generally, and were to apply it judiciously, there is no member of that body who will not recognise its value, and who, appreciating its efficacy as a remedy for spasmodic affections depending on spinal irritation, will not have cause to feel grateful to the eminent Physician who has contributed so liberally as he has done to the science of therapeutics.

Bexhill, Hastings.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES OF STRANGULATED HERNIA—RUPTURE OF MESENTERY FROM EXTERNAL VIOLENCE—LARGE FIBRO-FATTY TUMOUR IN THE HAM—REMOVAL OF LARGE NASAL POLYPUS BY EXTERNAL INCISION.

THERE are probably no cases in Surgery in which a series or the records of numbers of cases are of greater value than in the subject of hernia, and more particularly those where strangulation has occurred, and an operation been performed for its relief. An unusually large number has occurred lately in King's College Hospital, and the following details have been kindly placed at our disposal by Mr. H. Royes Bell, the Surgical Registrar.

It will be remembered that in a past number of our journal (879, May 4, 1867), we gave the particulars of a very interesting case of strangulated inguinal hernia, in which, taxis having failed, Sir Wm. Fergusson opened the sac, and removed a considerable amount of congested omentum. A very similar case was lately admitted under Mr. Partridge. The operation was rendered difficult in consequence of the presence of enlarged glands and a large quantity of omentem. In this case, as in the one alluded to, a portion, but not so much of the omentum was removed. A ligature having been placed round the base of the omentum, the rest was cut off, the base being left to block up the canal. The woman left the Hospital wearing a truss, and without the reappearance of the rupture. The bowel was not seen, as it was only a small portion of it that was strangulated. The omentum was healthy.

As a contrast to this we may mention two cases in the practice of the same Surgeon, where the operation was of the simplest kind, and the parts were readily returned after the division of the stricture. In the first case the rupture had appeared within twenty-four hours of the operation. Both cases were successful. In the first the wound was languid and did not heal rapidly; and in the second the cure was prolonged in consequence of bronchitis and rheumatic pains.

The first case was that of a washerwoman, aged 25, who had been ruptured for ten or twelve years, and during each labour the hernia had increased. It had never given her much trouble until about a week before admission, when it became very painful and swollen. The bowels had been hitherto regular, but became costive three days before admission, and remained so till within an hour of the operation, when they became relaxed. She was much troubled with hiccough, and had fæcal vomiting, during the twenty-four hours preceding the operation. On examination, there was a

large, hard, painful swelling in the right groin, the size of the fist. Attempts to reduce it under chloroform were unsuccessful, so an incision about three inches long was made over the tumour. There was found to be a mass of glands and fat, to which the omentum adhered, and on passing the finger in the direction of the crural canal, a small piece of intestine was felt. Gimbernat's ligament was nicked, the intestine was then put back into the abdomen, the base of the protruded omentum was tied with a ligature, and the front portion removed, and the base left to plug the wound. No bad symptom. The wound, however, was slow in healing.

The second case was one in which the sac contained a small portion of intestine and some omentum, both healthy. Gimbernat's ligament was divided, and the hernia readily returned.

Mr. Partridge has recently had a case of strangulated hernia complicated with stricture of the intestine—a somewhat rare coincidence, and one of course which, in a great measure, increased the chance of mortality after the operation. The patient, a labourer, aged 40, had all the symptoms of strangulation for about three days. An incision was made down to the tumour, which was situated on the right side of the scrotum, and the stricture divided; but the contents of the sac could not be at once returned into the abdomen, as they seemed much thickened and congested. At the time it was thought that this was owing to the pressure of a badly fitting truss; but, as will be seen presently, this was probably not the case. The bowel was returned, however, at length by careful manipulation. Peritonitis came on, and he died two days after the operation. At a post-mortem examination, it was found that there was slight peritonitis; the intestines much distended, and injected at all points. The strangulated portion, which was a part of the ileum just before it enters the colon, was of rather a dark colour, the coats were much thickened, and on slitting up the bowel at this point a stricture of about the circumference of an ordinary drawing pencil was found. The thickening was due to a deposit under the mucous coat. This deposit was of a grey colour and irregular in outline, and, on examination under the microscope, was agreed to be cancerous. There was no similar deposit elsewhere, however. The mesenteric glands were enlarged. There was a cyst at the lower end of the left kidney, and the other organs of the body were quite healthy.

Cases of severe internal laceration, with no external signs of violence on the person, are of frequent occurrence, and, unfortunately, if diagnosed, but little good can be done. In a number of our journal last year we published several such cases, but one of a very rare and peculiar character occurred some while back at this Hospital, which is worthy of recording; it was one of rupture of the mesentery, causing death. The following is an account of the injury, and what was found after death:—

A man aged 31, a porter, was in the street, and was accidentally squeezed between the step of an omnibus and a cart. But little was thought of the accident at the time, so that no particular inquiry was made on the spot. The man walked home and had a cup of tea, but, feeling that he got worse in the course of the evening instead of better, he came to the Hospital for advice, walking by himself from Drury-lane. He was at once admitted, as he seemed in a depressed state. His pulse was so feeble that it could scarcely be felt; his skin was cold and pale; he complained of pain in the abdomen. There were no external marks of violence. He died shortly after admission.

Post-mortem Examination.—The body was well nourished. On opening the abdomen a large rent was found in the mesentery filled with clot. There was extravasation of blood, fluid and clotted; clotted principally on the left side and about the mesentery. There was a slight extravasation under the peritoneum. No other vessels but those of the mesentery appeared to have been wounded. Coagulated blood could be squeezed out of the vessels of the mesentery. The rent was about the size of a small apple. The internal organs were all healthy.

Mr. Henry Smith lately removed a large tumour of a fibro-fatty nature from the ham, and called attention to the difficulty of an accurate diagnosis in what might at first sight seem a very straightforward case. He alluded to a case he had operated upon some time previously, in which the tumour was diagnosed to be of a benign, probably fatty nature, and which in reality turned out to be malignant, and connected with bone, situated precisely as in the present instance. Too great care cannot be taken in giving a decided opinion on deep-seated tumours, and, as is frequently the case, the most elaborate diagnosis is often at fault. Mr. Smith has kindly placed the following notes at our disposal:—

The patient was a healthy man, about 30, who had noticed the tumour to be growing for fifteen years; latterly it had increased considerably, and hindered the movements of the limb. On examination, the tumour was found to involve the greater portion of the posterior part of the thigh, extending from about the base of the great rochanter to the upper third of the popliteal space. It was pretty clearly defined, especially below, and was moveable, although it was evidently situated underneath the hamstring muscles, which were greatly stretched, and bulged out by the mass beneath. There was no œdema of the foot and leg, and no membrane of the limb. Clearly, therefore, the great vessels and nerve in the ham were not implicated. There was no pain in the tumour.

After careful examination, Mr. Smith concluded that it was in all probability of a fatty or fibro-fatty nature, and recommended its removal, and this was accomplished in the following manner. A puncture was first made into the centre of the tumour with the view of ascertaining if there were any fluid, and as there was no indication of this, Mr. Smith made a long incision over the entire tumour, carrying the knife deeply into its substance. A few touches of the knife, so as to separate the muscular fibres, immediately caused the mass to spring forward, and showed its nature to be a mass of fat enclosed in a cyst. A very free opening being made, the knife was laid aside, and the hands being insinuated on either side, between the muscles and the tumour, the mass was carefully dragged forward from out of the deep space in which it was embedded, and its adhesions to the neighbouring structure were torn through; and, indeed, the tumour was fairly enucleated from its bed without the necessity of any incisions being made in the popliteal space. There was scarcely any bleeding, although the large vessels covered by their sheath were found beating immediately underneath the tumour.

On examination the tumour was found to be mainly fatty, with tough strings of fibrous tissue interspersed here and there.

Sir William Fergusson lately removed a very large nasal polypus affecting both nostrils, the peculiarity of which was that by its continued growth it had expanded the cartilages and the nasal bones on both sides, but, instead of thinning them, had thickened them to an inordinate extent; the upper part of the nose was greatly expanded, giving it a very peculiar appearance. The patient said that it had been removed twenty or thirty times. Sir William, finding that it was impossible to remove it entirely with polypus forceps, determined to remove it from the outside. This was effected as follows:—An incision was made from the ala nasi up towards the inner angle of the eye down to the expanded cartilage and bone. The thickened cartilage was then detached with cutting forceps, and with it a portion of the bone to which it was attached. The polypus was then seen immediately beneath it, and extracted in the usual manner. A similar proceeding was adopted on the opposite side. The wounds were brought together by sutures; the nose was restored almost to its normal size and appearance. Sir William Fergusson stated that it was the only case of this kind he had ever seen.

ROYAL LONDON OPHTHALMIC HOSPITAL.

NOTES ON OPHTHALMIC CASES.

(Under the care of Mr. HUTCHINSON.)

Mr. Hutchinson lately called our attention to a case of advanced glaucoma of both eyes, in an old woman who had been liable for years to attacks of most severe neuralgia, especially in the right forehead. The actual loss of sight was accompanied by the usual severe pain in the eyeballs. Such a case is interesting in connexion with the serics he has published in the *Ophthalmic Journal* of cases of amaurosis following neuralgia of branches of fifth nerve.

Mr. Hutchinson has lately had another instance of absence of syphilitic disease in the offspring of a woman, herself the subject of inherited taint. The case is to be published shortly.

As an instance of the rapidity with which the lens becomes opaque, we may mention the case of a young man who applied to Mr. Hutchinson the other day four hours after a wound of the cornea and lens. The latter was already opaque. It is not often one has the opportunity of seeing such cases so early In two other cases seen eighteen hours after the wound the lens was also opaque, and probably had been so much earlier.

We also saw a case of very unusual difference in the refractive powers of the two eyes in the same patient. She was a girl aged 11, who came under Mr. Hutchinson's care for convergent squint and defective sight.

The right eye was the one which appeared to converge, and was found to be myopic a third. With it she could read "brilliant," but her vision could not be made perfect for the distance. A considerable crescent perhaps accounted for this.

The left eye was hypermetropic a twelfth, but as she could not read well with a spherical lens, Mr. Tay tried for astigmatism, and found that the vertical meridian was normal, the horizontal only being hypermetropic. With a cylindrical lens she could read "brilliant."

The right was not found to be astigmatic.

Several interesting cases of herpes on the forehead have recently been under care. In all the eruption was confined to the forehead, and did not pass down the side of the nose, and in none did the eye itself inflame. Mr. Hutchinson lays much stress on the exact position affected. He holds that if the forehead only is affected, although there will be eruption on the upper eyelid, yet the eye itself, beyond a little transitory conjunctival congestion, will not suffer. If the eruption come out on the upper part of the side of the nose, there may be slight iritis, etc.; whilst if the tip of the nose is affected, the eye will certainly suffer severely. These differences he explains by reference to the anatomical distribution of the ophthalmic division of the fifth nerve, by which the disease is localised. The branch which supplies the tip of the nose is the one which supplies also the ophthalmic ganglia, and from it the structures of the eye.

THE LONDON HOSPITAL.

SIMULTANEOUS DISLOCATION OF BOTH SHOULDERS IN AN ADULT, UNREDUCED AT THE END OF THIRTEEN WEEKS—ULTIMATE RECOVERY OF PERFECT MOBILITY AND STRENGTH.

(Under the care of Mr. COUPER.)

As the simultaneous luxation of both shoulders, or indeed of any pair of large joints, in a healthy adult is a somewhat rare occurrence, the following notes of a case of double subcoracoid dislocation of the humerus may interest the reader. It occurred last December, in a labourer, aged 51, and appears to have been caused by a sudden contraction of the great pectoral and latissimus dorsi muscles of each side, at a time when the posture of the limbs favoured dislocation by this means—such, at least, is the inference to be drawn from his clear narrative of the accident. When it occurred, he was standing insecurely on the edge of a loaded coal truck. In order to maintain his balance, he rested one hand on the coals and the other on the arched end of the wagon, which was considerably higher than the sides. While in this posture, his feet slipped, and in the sudden effort to save himself from a fall, he "felt something give" at his shoulders, and, on rising, was unable to use his arms. The mechanism of the displacement was simple enough. When he slipped, the weight of the trunk fell, in part at least, on the outspread arms, and, in the sudden effort to support it, the two pairs of muscles just mentioned were probably among the first to contract. When acting simultaneously, their normal effect is to press the arms to the sides, the glenoid cavities being the fulcra. On the present occasion, however, the hands became the fulcra, being firmly supported on the wagon, and the head of each humerus was jerked inward by muscular contraction at a moment when the bones were in a position favourable to the displacement, and when the other muscles which usually co-operate to hold the head of the bone against the glenoid cavity were relaxed. The accident occurred twelve weeks before his first visit to the London Hospital. When he presented himself there, the aspect of the shoulders and arms was still very characteristic. The acromion on each side was prominent, giving an angular contour to the shoulder, and the deltoid was flattened; the axis of the shaft of the humerus was altered, being inwards and forwards at the upper part, outwards and backwards at the lower; and the elbow stood out from the side and lay further back than usual. This latter was most apparent when the arms were allowed to hang loosely. A certain amount of mobility had probably been regained since the accident, for he was able by an effort to bring the elbow in contact with the side, but could not bring it as far forwards as usual. This inability was best illustrated when he attempted to fold the arms in front of his breast. He was wholly unable to accomplish this, and, in fact, could do little more than cross the wrists. Rotation of the humerus was also limited, and for this reason he was unable to place his forearms behind his back. He could bring the fingers to his lips, but could not place the hands behind his head. Altogether, however, the arms had regained a fair amount of motion. He grasped strongly and also lifted weights well, but had been unable to work as efficiently as before the accident.

Remarking on the case, Mr. Couper said that he had had occasion some years since to reduce a simultaneous dislocation at both hip-joints. It occurred in the person of a railway porter who had been knocked down by the buffer of a railway carriage, which struck him on the buttock. The interest of the case consisted in the opposite direction of the displacements. The head of one femur lay on the obturator foramen; that of the other on the dorsum ilii. It was somewhat difficult to conceive how one blow could occasion simultaneous and opposite effects. Such, however, was the case. Luckily the man was brought at once to the Hospital, where both dislocationa were reduced under chloroform, and he was very soon well. By an unaccountable misfortune in the present instance, the patient had not obtained proper Surgical assistance until the thirteenth week from the accident, and the chances of reduction were then very small indeed. Should reduction be attempted after so long an interval? In coming to a decision on this point, several considerations must be carefully weighed. 1. The probability of the bones having already become firmly attached in their new positions, whence they could not be dislodged without lacerating their ligaments. 2. Supposing reduction effected, there would remain a liability to redisplacement by trivial causes, owing to changes in the glenoid cavity. The solidity of the shoulder-joint would thus be damaged, and the patient left in a worse plight than ever. Moreover, the man made light of the mere deformity which had resulted. He was more concerned about his inability to labour for his bread. The mobility and usefulness of the arms were being rapidly regained, however, and it was quite certain that the limbs, even if left to themselves, would be soon as strong as ever. Thus far, then, there was no inducement to attempt reduction. On the other hand, however, a moderate amount of extension by means of pulleys might stretch the adhesions, and thus diminish the remaining stiffness. There was also the chance—a small one, it is true—that this moderate extension might, at the same time, effect reduction, for it was impossible, short of an experiment, to ascertain how loosely or how firmly the bones were retained in their new positions.

In accordance with this indication, the pulleys were attached to the left arm, and the counter-extending pillow placed in the axilla. After cautiously extending the limb in various directions, and as thoroughly as the limit just laid down admitted, it was found impossible to reduce the dislocation. The experiment was not repeated on the right limb.

At the end of a few weeks all bruising and soreness had disappeared, and the man asserted that the left arm had now more strength and mobility than the right, and requested that the right arm should be similarly dealt with. Careful examination, however, failed to confirm the assertion, which was probably due to his impression that the arm was reduced. It was obvious, however, that both limbs had improved in mobility and strength, and that the attempt at reduction had, at all events, been harmless.

At the beginning of May he came again to the Hospital, and was then nearly as fit for work as ever. The forearms could be folded in front of the chest, and the palms placed on the occiput. In fact, but for the deformity, the man had suffered no permanent damage.

Naval Medical Supplemental Fund.—At the quarterly meeting of the Directors of the Naval Medical Compassionate Fund, held on the 8th inst., Sir E. Hilditch, Inspector-General, in the chair, the sum of £70 was distributed among the various claimants.

Detection of Muscle in the Spleen.—The demonstration of non-striated muscle in the spleen is not a very easy matter. Herr Rollett, of the University of Gratz, however, believes he has found a method of treating the tissue so as to bring out the muscular structure distinctly. We regret that he has not also published the details of this method.

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Medical Times and Gazette.

SATURDAY, OCTOBER 19, 1867.

POSITIVE THERAPEUTICS.

Dr. Graily Hewitt's introductory address at University College reminds us that we have more than once contemplated making some brief remarks on what may be called positive therapeutics, the place which the use of drugs properly occupies, and the right use of "expectancy" in the treatment of disease. The period of the year when young men gather together for the first time in the Schools of Medicine seems to us appropriate to the carrying out of this project. It is for them that we write now rather than for their seniors, who the longer they have practised will only, we are satisfied, be the more disposed to acquiesce in the views we are about to propound. We shall never forget a conversation we once had with a well-known and most estimable Professor of Materia Medica when assisting in his laboratory as a student. It turned upon the treatment of disease by active medicines, and he said, "You will find out, as you get into practice, that in the higher walk of life such active medicines as you mention will not be tolerated. Such people do not like them, and will give you the go-by in future if your physic produces any addition to their discomfort. I am now in attendance on a lady of title who is suffering from an attack of pneumonia, and all the medicine I am giving her is a little spiritus ammoniæ aromaticus," adding, with his customary chuckle, "and she is getting well for all that." At the time we felt somewhat staggered, and doubted how our old teacher could reconcile such conduct to his conscience, for we could not avoid mentally contrasting it with the bleedings, tartar emetic, calomel and opium, and salines administered in such cases by his own direction in the Hospital, as well as with the adjuvantia, corrigentia, vehiculum, etc., etc., by which his prescriptions were distinguished on the cards at the head of the beds in his ward. Subsequently we learned to understand him.

There are certain conditions without the supply of which nobody can live very long. One of these things essential to life is food. Not necessarily rump steaks and porter, although a supply of such food as this—and a good supply too—is nearly all that some poor creatures require who apply at Dispensaries and at the out-patients' department of our Hospitals, but such food as the existent powers of digestion can apply to the nutrition of the frame. It may be that milk or beef-tea or extract of meat is the only food that can be borne without discomfort. Still, if so, these and suchlike must be given, and in sufficient quantity too; not that the needful daily allowance either is to be given all at once or at regular meal-times. Perhaps a teaspoonful at a time may be all that can be tolerated; but the smaller the quantity given at once, the more frequently must it be administered—not forgetting that the night has its claims as well as the day. Sometimes, it is true, a total abstinence for a day, or even longer, from food of any kind is a proper thing to prescribe; but this is only when the stomach, perhaps having been badly treated either by the patient or his Doctor, requires functional rest for recovery of its powers.

Another essential, as for life and health, so for sick people, is fresh air. Such as can go out should be encouraged to do so, and such as cannot should be at any rate supplied with a sufficiency of new air in their apartments, and not be compelled or allowed to breathe over and over again the same atmosphere. And so, too, with light, where no special circumstances forbid its free admission.

Again, as men and women have minds as well as bodies, and the one reacts upon the other, the fact that it is so should never be forgotten. A Medical man is not fit for his position who cannot and does not endeavour to realise and sympathise in a degree with the inner life and consciousness of his patient, and who does not take into his consideration the condition and wants of what is invisible as well as what is visible in the constitution of man.

All this, and a good deal more of a similar character, it behoves a Physician to see provided. It may be said that these are matters which pertain to nursing. Call it nursing if you please, but all we have to say is that good nursing constitutes nine-tenths of Medical practice. Let every young Practitioner get this firmly settled in his mind at the outset of his Professional life. It will relieve him from much disquietude, will add immeasurably to his success, and will save him from many errors in practice. It will not render him less heroic in his treatment when heroism is really called for.

Among all the natural remedies for disease, rest perhaps stands foremost—we mean that it is applicable to the treatment of the greater number of the maladies which come under the care of a Medical man. Wherever the fault lies, whatever part is specially ailing, his first idea is, "Rest it." A man who cannot move a rheumatic joint or an injured limb without pain is compelled to rest it in spite of his wishes. Rest is here Nature's own remedy, in the application of which she takes no denial; and the Practitioner of the healing art takes his cue from this great teacher. If he has an ulcer on the leg to cure, he enjoins rest, and lays up the limb accordingly; and so, too, if he has an ulcer in the stomach to heal, he procures rest of this organ also, as in the case of the sore leg, by giving it as little to do in the way of laborious work as is consistent with the due nutrition of the body. And so we might go on adducing examples of the therapeutical value of rest in maladies affecting every system and organ of the body; but the subject has been so exhaustively treated in the admirable work of Mr. Hilton, that we cannot do better than advise every young Practitioner to get the volume and study it assiduously.

Of course we do not pretend here to pass under review all the natural remedies for disease at the disposal of the Practitioner before he need think of what drugs he shall prescribe. Far be it from us to throw any doubt upon the efficacy and value of drugs when administered internally. All we wish to insist upon here is, that the student who watches the Medical practice of a Hospital should not run away with the notion that the physic the patients have to swallow is always, or even commonly, the most important part of the treatment they receive, or be led into the error of imagining that when improvement takes place it is due necessarily to the medicines taken, and so be content to charge his memory with a number of formulæ as applicable to the cure of certain diseases, as if this was the most important preparation he had to make for the future practice of his art.

Setting aside cases of acute or chronic poisoning, let us now see how all this applies to diseases as they group themselves when looked at from a therapeutical point of view. First, then, there is the class of maladies which, if the patient can be kept alive, will disappear of themselves in due time. Into

this class fall the majority of acute diseases occurring in persons free from serious organic disease in vital or depurating organs, and free from any prior and important disorder of the blood. Such, for instance, is pneumonia, as ordinarily met with; such again, as a rule, are the specific and exanthematous fevers. To hope to cure such diseases by drugs is silly; to refer the cure to the medicine given is mere conceit, the tendency is to spontaneous recovery. The administration of drugs occupies but a small and insignificant place in their management. Heroic treatment is quite uncalled for. The utmost they can advantageously effect, for the most part, is to clear the *primæ viæ*, relieve pain, assist in maintaining the action of the heart, and soothe the nervous system. So far their value is positive; beyond this their claims are open to grave question. Sedulous and appropriate alimentation and hygienic appliances are the chief remedies to be trusted in.

Then, again, it often happens that if the cause of a malady can be discovered, its removal is quite enough to cure the patient. The difficulty here is to discover the cause, and it is in this search that the acuteness of the Physician is often most conspicuously displayed, and that his experience serves him the best turn. Thus we have known an obstinate case of gastric neuralgia, which had resisted half the remedies in the Pharmacopœia, cured at once by the removal of the irritable stump of a tooth. It is not always thus, but it is to be kept in mind that much of our administration, even of drugs, has for its object the removal of the cause of disease.

The most difficult cases a Medical man has to treat, however, are those in which the sufferings of the patient are dependent upon some structural mischief which no power of art can remedy. Again we say that even in these, the most unpromising cases that can come under treatment, it should be an object to maintain and increase, if possible, the powers of life by supplying proper and sufficient food and by surrounding the patient with all the ordinary appliances for health; to insure rest for maimed or suffering organs; to soothe local suffering, wherever it can be done, by local applications; and to use every appropriate means of influencing the system from without. In such patients as these it is that the judicious use of internal remedies is perhaps more frequently called for than in any others; but the art of the Physician is shown in effecting what he wishes to effect with as little internal medication as possible. Even when internal remedies, drugs, are given in these cases, it is often rather more with a view to supplement the more natural and simpler remedies we have referred to than anything else. Thus we use cod-liver oil in phthisis and chronic rheumatism as an addition to the diet rather than as exerting a physiological action. We prescribe opium in peritonitis (rarely, if ever, an idiopathic disease) more to insure perfect rest of the inflamed part than for any other reason. Nature, let it be recollected, even in such cases as these, can do much when thus assisted; but there is still a great deal that she cannot do, except when more or less alteration is made in her mode of working, and tools are supplied her to work with that she does not possess herself. It is for this reason that we find it necessary sometimes to give substances which, when absorbed into the blood, alter its constitution, modify the functional manifestations of nervous energy, promote the due performance of the various processes of digestion, arrest excessive, or stimulate dormant, action of important organs, favour depuration, alter the character of secretions, and so forth. The secret of treating such cases is not to attempt too many things at once, trusting that the setting right of one disturbance may result in the spontaneous setting right of others, and, whatever is attempted, to prefer gentle to violent remedies, and thus strive to effect the object sought by patient and persistent endeavour, avoiding the doing of harm, while following out clear indications, and, above all, avoiding working in the dark. It is far better for the sufferer, and more honest, to abstain from prescribing anything besides hygienic remedies when we cannot see our way with tolerable distinctness. It is better to wait and watch than to guess.

THE WEEK.

TOPICS OF THE DAY.

The attack of small-pox from which Prince Arthur has been suffering was of a modified and mild character. He is believed to have contracted the disease in Scotland. He was seized with the usual premonitory symptoms whilst at gun drill at the Academy, Woolwich. The pains in the head and back, of which he complained, were attributed to fatigue, and the Prince remained a night at the Academy, attended by the Medical officer of the establishment. The next day, however, he was worse, and was removed in a carriage to the Ranger's house, Greenwich-park, where he is staying. Here he was seen by Dr. Carr, of Blackheath, and subsequently by Dr. Sieveking in the absence of Dr. Jenner, and Dr. Munk, Physician to the Small-pox Hospital. We are glad to be able to state that nothing could be more favourable than the progress the Prince has made. In fact, his condition is so satisfactory that Dr. Sieveking has ceased attending.

Some weeks ago, when announcing the vacancy in the Sergeant-Surgeoncy to the Queen, we fixed upon Sir William Fergusson and Mr. Paget as the two Surgeons one of whom was most likely to be selected for the honour. The event has proved that we were not mistaken. The Profession will learn with great satisfaction that the lucrative and most honourable appointment of Sergeant-Surgeon has been awarded to Sir William Fergusson, whilst the equally honourable, although less lucrative, appointment of Sergeant-Surgeon Extraordinary has been revived and accepted by Mr. Paget. We are certain that no selections could have been more acceptable to the great body of the Profession. The distinguished Operator and the no less distinguished Surgical Pathologist have now obtained that recognition of their services to the healing art from the State which has long been awarded them by their Professional brethren, and in both cases a strong and general feeling of personal esteem, the fruit of a long course of Professional urbanity and untarnished Professional character, will follow them in their elevation. The names of the gentlemen who are to succeed in the vacant Surgeoncies Extraordinary have not yet been officially announced. It is rumoured, however, that Mr. Hilton and Mr. Prescott Hewett will be selected for these appointments. We hope that the rumour may prove correct. It is time that Guy's Hospital was represented on the *rôle* of Medical officers attending on her Majesty.

The remarks we made last week on the alleged insanity of the convict Bordier have filled our correspondence columns. The observations of Professor Laycock and Dr. Wood are worthy of all attention, but we are as unconvinced as ever of the insanity of Bordier, in any sense which may not be affirmed of all wrong-doers; and we continue equally incredulous upon any special connexion between insanity and fistula. We take our stand upon the principle that it requires something more than the commission of a great but not a motiveless crime, and a weak state of bodily health, to constitute a man an irresponsible madman. We are quite ready to admit that some persons suffering from fistula may have committed murder or suicide—whether under the influence of insanity or not, must be determined by other circumstances—but we cannot accept as "an established fact" that there is the slightest connexion between disease of the rectum and an unsound state of mind. We do not dispute the facts brought forward by Dr. Wood, but we utterly deny the inference. Any chronic, or painful, or debilitating disease may render a man moody and irascible, but it does not make him irresponsible. Of course, if all criminals are mad, well and good. In that case society has nothing to do but to break up all its machinery of justice, and commit the keeping of the peace to alienist Physicians and their assistants. But if there be such a thing as an outrageous crime committed by a sane person, the com-

mission of an outrageous crime alone can never be held to be proof of insanity. The case of Bordier, however, is set at rest by his own admissions. In letters published in the *Morning Star* on Wednesday last, he repeatedly acknowledges the justice of his sentence, and professes himself penitent. The reporter of that paper—at least an unbiassed authority—allows that, from the culprit's own admissions, it was clear that jealousy, not madness, was the cause of his crime ; and we may add, on the authority of the *Times*, that for some time after his conviction Bordier cherished the hope that he might still be reprieved on the ground of insanity, but finding this hope fail, he resigned himself to his fate, received the consolation of the Roman Catholic Church, and died deeply penitent. In all this there is certainly no evidence of madness. We wish to be clearly understood. We express no opinion as to the propriety of capital punishment, and we are unwilling that the amount or kind of punishment which the law may award to crime should be made an element in the discussion. For ourselves, we should have gladly heard that the life of the unfortunate man had been spared. But, in a case of this description, we strongly object to a theory which may be called the "couldn't help it" being advanced as a Medical and a scientific one ; for we believe that it has no real scientific foundation, and we hold that its general acceptance would be subversive of the clearest laws of religion and morality.

We see that the epidemic of feminine-physic mania, which has passed over this country from America, is gradually progressing eastward. The last case of which we have heard is that of a Russian lady, a Mdme. Souskof, who has obtained a Medical diploma from Zurich. She commenced attending lectures on Anatomy and Surgery at St. Petersburg, but the Russian Government interfered, and published an order interdicting the presence of women at these classes. Despotic governments are sometimes useful.

We are happy to report that two ovariotomy operations have been successfully and painlessly performed under the influence of the new anæsthetic (bichloride of methylene) discovered by Dr. Richardson. The patients were operated on by Mr. Spencer Wells, Dr. Richardson administering the anæsthetic. In both cases the results almost surpassed expectation. In the first, perfect insensibility was produced in four minutes ; in the second case, in about six minutes. In both instances, the patients glided, so to speak, into complete anæsthesia without a struggle. The second degree of narcotism, that of excitement, was almost wanting. There were no convulsive movements, and there was no vomiting. The pulse and breathing were remarkable for their entire accord, keeping throughout the normal ratio to each other. In neither case did the pulse rise more than eight or ten beats per minute. As during chloroform anæsthesia, the eyes were turned upwards, and the degree of insensibility could be determined by the insensibility of the conjunctiva. One patient was kept under the influence of bichloride of methylene for three-quarters of an hour ; the other for thirty-six minutes. In each case, after the expiration of about half an hour, the pupils became slightly dilated. During inhalation there was no laryngeal irritation. Bichloride of methylene appears to differ from chloroform in the rapidity with which it produces anæsthesia, in the prolonged anæsthesia which results from its inhalation, and in the facility with which complete anæsthesia may be re-established by the reception of a very small quantity of the vapour when the effect begins to diminish. We may mention that in one instance, the room being warm and moist, the vaporisation of the fluid was so rapid that frost was produced on the inhaler. This, however, did not in any way interfere with the inhalation.

The post of Physician to the Royal Free Hospital has been filled by the election of Dr. Rickards. It is understood that the election was decided by a small Committee, and that the Medical staff of the Hospital were not consulted in the matter.

THE PATHOLOGICAL SOCIETY.

On Tuesday, the 15th inst., the Pathological Society met for the first time this session, when, notwithstanding the inclemency of the weather, a very large number of Fellows made their appearance. Mr. John Simon, the President, was welcomed to the chair, when he made some observations as to the success of the Society in every way, and instanced as a proof of this the large number of candidates for admission as Fellows of the Society. The amount of work done in this Society is very great, and much good is done by the discussions which follow the description of the specimens—for reading papers is not the rule here. Still, we think the good work might be improved upon; pathology is in many instances, especially in Surgery, most intimately connected with therapeutics, and we think it a pity the latter should be so much ignored by the Society. After all, pathology is only good in as far as it extends our knowledge of morbid processes, and thereby aids us by the clearer insight we obtain into the means of combating disease. True, the line must be drawn somewhere; but we question whether the Pathological Society have not drawn it too closely around their special subject. We would also remark upon the good these societies do in bringing men together who would otherwise have no chance of meeting ; in fact, to many the chat over the cup of coffee at the end of the meeting is the pleasantest part of the whole. The Pathological, as will be seen by the report, has started well this session, and we wish it every success.

THE YELLOW FEVER AT THE MOTHERBANK.

We are sorry to observe, by the arrival of the R.M. steamship *Tasmanian*, at Plymouth on the 13th, at Southampton on the 14th inst., that yellow fever has again made its appearance in that pestilential harbour of St. Thomas's, and that unfortunately some eight or ten cases of the disease had broken out on board the *Tasmanian* during her run home from St. Thomas's, and that two cases had been sent to Hospital before her departure from the island. The cases are reported to have been of a very mild type, one case only, a newly appointed post-office official, having terminated in black vomit and death on the 11th inst. The authorities at Plymouth refused the *Tasmanian* her *pratique*, and she was consequently ordered to proceed on to Southampton. On her arrival at this port, communications were forwarded to the Lords of the Privy Council announcing the suspicious condition of the steamer and the recent deaths from yellow fever which had occurred on board. The *Tasmanian* was ordered to the Motherbank by the Lords of the Council, and instructions sent to the Custom-house authorities and the Medical Superintendent of Quarantine to go down to the Motherbank, and arrange for the comfort and accommodation of all about to undergo the disagreeable restrictions of quarantine. The passengers were transhipped to a fine old spare ship, the *Parana*, the healthy crew went on board the *Æolus*, and one sergeant from the West Indies suffering from fever and a young officer of the *Tasmanian* were the only invalids considered proper objects to go on board the hospital ship *Menelaus*. Up to Wednesday evening no fresh seizures of any kind had taken place on board any of the above ships under quarantine. Nothing is known as to the time the Lords of the Privy Council may deem it prudent to detain the passengers and crew of the *Tasmanian* at the Motherbank ; but having regard to the date of the death of the post official from yellow fever and black vomit—viz., the 11th inst.—it is more than probable that some days may yet elapse before free *pratique* is granted to these vessels. With the experience so dearly purchased by the Royal Mail Steam Company, it is to us matter of grave surprise that they persist in taking their splendid fleet to the notoriously unhealthy coal-wharves at St. Thomas, more particularly when we are reminded that last year there prevailed in the

town and harbour, at the same time, three of the most malignant scourges to which a community may be exposed—yellow fever, cholera, and small-pox.

THE COLLEGE PROFESSORSHIP.

At a meeting of the Council of the Royal College of Surgeons on the 17th inst., Mr. Frederick Le Gros Clark, a member of the Council, was elected Professor of Human Anatomy and Surgery in the vacancy occasioned by the resignation of Professor Hancock.

PROMOTIONS IN THE ARMY MEDICAL DEPARTMENT.

We hear that there are six vacancies in the ranks of Deputy Inspectors General of Army Hospitals, and that hitherto five names have been submitted for promotion. We believe from recent appointments that it will be found that in the forthcoming promotions the rule of selection by seniority will be pretty closely adhered to. We hope to see that an exception has been made in the case of Staff Surgeon Major F. Reid, M.D., who has lately done good service during the epidemic in the Mauritius.

THE CHILD BITTEN BY RATS.

Under the above sensational title, a paragraph has been going the round of the papers to the effect that a child fearfully bitten by rats "was lying in King's College Hospital so much injured, that it was feared its arm would have to be amputated." Fortunately, however, the story is one of the three black crows species—one of those which prevail in the big gooseberry season. The truth of the matter is, that a child was brought to King's College Hospital the other morning, having on the back of her left hand two little marks, said to be the bite of a rat. The hand was slightly swollen and puffy, and Mr. Trevor, who saw the case, ordered a poultice to be applied. She came back next day much better, and has not been seen since. Such is the little modicum of fact contained in the wonderful story referred to.

THE ST. PANCRAS MEDICAL OFFICERS.

The St. Pancras Board of Guardians has always been notorious for its extraordinary acts. One of the last of these has created much excitement among Poor-law Medical Officers. When the new Board of Guardians came into power, they found Mr. Bennet, a married man, in charge of the Workhouse Infirmary. The Board determined to employ none but unmarried men, when poor Mr. Bennet was sent to the right about without any cause assigned beyond the mere fact of his having a wife who had helped him materially in his arduous duties. They are now going to employ three unmarried men to take sole charge of the inmates of the Workhouse. Mr. Bennet has certainly been badly treated in the matter; nor do the guardians seem to be going the proper way to work to improve the condition of the sick poor in their charge. There surely ought to be some one in the capacity of Visiting-Physician or Surgeon, such as there is at Marylebone. Certainly the mode of managing the two places is widely different.

THE RECENT COURT-MARTIAL AT CHATHAM—"DOCTOR AND PATIENT."

Our readers have doubtless seen in the daily papers an account of a court-martial lately held at Chatham to try a private soldier on the charge of having made a false and malicious report as to the conduct of the Surgeon of the 2nd Depôt Battalion at Chatham. The private stated, in a letter to the general, that the Surgeon had made use of violent and abusive language towards him, and, we believe, even that he had shaken his fist in his face, and had called him a malingerer. The matter was of course investigated, and the charges were denied by the Surgeon. As a natural consequence, the soldier was put on his trial for having made false charges against the Medical officer. The soldier was acquitted. So much the better for him, but so much the worse for the Medical officer, whose conduct he had impugned. The acquittal of the soldier clearly involves the confirmation by the Court of the statements which he had made. As the full details are not in our possession, we must suspend our judgment. We only remark that the case is unfortunate as occurring so quickly after the court-martial on which we commented last week.

A TRANSPORT CRUISE.

H.M.S. *Tamar* has been ordered to receive troops at Portsmouth on the 16th inst. for conveyance to the following foreign stations—Gibraltar, St. Helena, Cape of Good Hope, Mauritius, Penang, Hong Kong, Japan, and then back to England. She is to convey the 86th Regiment from the Cape to Mauritius, in case the fever should have sufficiently abated on that island, but not otherwise. We hope that the information on this point will be complete, and that the regiment will not be hastily and unnecessarily transferred from its present healthy quarters at the Cape. By the latest accounts which we have received from the Mauritius the fever was abating in violence among the civil population, and did not appear to be attacking the newly arrived 32nd Regiment. Should the *Tamar* go to the Mauritius, she will convey the two companies of the Royal Engineers from thence to the Cape, and thereby, with the exception of a small body of artillerymen, the whole of the former garrison of the Mauritius will have been removed from the island. We have heard sundry rumours as to the deficient Hospital accommodation and equipment provided in such of her Majesty's ships as are used for the transport of troops. During the recent homeward voyage of the *Orontes* many deficiencies are said to have existed—there were no sheets, pillow-cases, or counterpanes for the beds in the "sick bay;" consequently, the blankets became begrimed with dirt, especially during the coaling of the vessel, and were exposed to many other sources of contamination, particularly in the women's berths during cases of childbirth. The medicine-chest belonging to the troops, for some inscrutable season, could not be placed in the ship's surgery—the bottles in the medicine-chest were square, and the holes in the surgery bottle-racks were round, or *vice versâ*—consequently, each bottle had to be packed in with tow! and on the whole we have been given to understand that much discomfort existed. Now we know, from our visit of inspection to the Hospital transport ships designed for the Abyssinian expedition, how thoroughly the Army Medical Department can provide for the accommodation of sick on board ship, and we think that by the expenditure of an ordinary amount of care, and at no very great money cost, the Admiralty might manage to remedy such obvious deficiencies in their ships as we have above noticed.

ARMY MEDICAL DEPARTMENT REPORT FOR 1865.

This report has appeared during the present week. Time does not admit of our noticing it at length, but we hope hereafter to present our readers with a fuller abstract of it. By a hasty glance through its pages, we have ascertained that, on the whole, the state of health of our army, both at home and abroad, has been satisfactory. From the summary of the statistical portion of the report, it appears that in the army at home and abroad during the year 1865, in a mean strength of 185,841, there were 205,236 admissions into Hospital, 3358 deaths, and 4821 discharges by invaliding, giving an annual ratio per 1000 of strength of 1104 admissions, 18·07 deaths, and 25·9 discharges by invaliding. The average annual ratio of the preceding five years per 1000 of strength was 1197 admissions, 17·30 deaths, and 23·58 discharges

by invaliding; so that the admissions in 1865 were below the average by 93 per 1000, the death-rate was slightly increased by 0·77 per thousand, and the rate of invaliding was increased by 2·32 per 1000. The excess in the deaths was chiefly in the Mediterranean by cholera, and in the West Indies and China by fever. In the United Kingdom, in a strength of 72,999, there were 68,661 admissions, 647 deaths, and the average number constantly sick was 3368. These numbers give the proportion of 941 admissions, 8·86 deaths, and 46·14 constantly sick per 1000 of strength. The average of the five preceding years was 1002 admissions, 9·37 deaths, and 52·17 constantly sick; so that the sickness and mortality have been considerably under the average.

"The reduction in the mortality is still more marked if compared with the ratio for 1864, which amounted to 9·99 per 1000 of the strength. The average constantly sick has been 1½ per 1000 of the strength under the proportion of 1864, and 6 per 1000 under the mean of the last five years."

For the first time there is given a report on the sickness and mortality of soldiers' wives during five years, from 1860 till 1864, from which it appears that in almost all the tropical or semi-tropical stations the mortality among soldiers' wives is considerably greater than that among the soldiers themselves. In Gibraltar and Malta it was as 14 to 8 per 1000; in the Mauritius and Ceylon, as 28 to 22; and in India as 40 to 28. We shall notice this part of the report more fully on a future occasion. There is also a "statistical inquiry into certain points connected with venereal diseases," by Surgeon-Major S. H. Fasson, of the Royal Artillery, in which much interesting matter is contained. Surgeon-Major Bostock, of the Scots Fusilier Guards, and Honorary Surgeon to the Queen, gives a report on the Medical and sanitary services of the Prussian army during the campaign in Bohemia in 1866; and Inspector-General Mouat, V.C. and C.B., gives a special report on wounds and injuries received in battle during the New Zealand war of 1863, 1864, and 1865. These and other interesting communications we also hope to notice fully in the course of time.

THE CHOLERA IN SWITZERLAND.

The cholera is declining at Zurich. From August 3, when the first official bulletin was published, to September 25, there had been 746 cases of cholera, and 363 deaths. On the 26th there were 15 new cases, and 6 deaths; on the 27th, 20 new cases, 7 deaths; on the 28th, 10 new cases, 5 deaths; on the 29th, 7 cases, 7 deaths; on the 30th, 6 new cases, 2 deaths; but on the 29th and 30th the cases were in the environs, not in the towns. October 1, 4 new cases, 3 deaths; 2nd, 2 cases, 1 death; 3rd, 4 cases, 1 death; 4th, 5 cases, all of children, 6 deaths; 6th, 3 new cases, 3 deaths; 7th, 3 new cases, 1 death; 8th, 5 cases, 3 deaths; 9th, 2 cases, 3 deaths; 10th, 2 cases, no death. Some interesting particulars crop up in the papers. For example, we learn from the *Gazette de Lausanne* that both in Zurich and in the communes around there have been discovered dwellings and conditions of habitation worse than could have been conceived to exist in the worst quarters of the largest towns—insomuch that people now betake themselves to wonder why the epidemic has not been worse. More especially the want of wholesome drinking water has become evident, and a project has been raised for the distribution of filtered water from the Limmat. The celebrated Professor Lebert, of Breslau, who has been staying at Bex, has communicated a very interesting paper, in which he observes that Switzerland furnished no more than 1000 deaths from cholera from 1836 to 1855, whilst Russia lost a million between 1847 and 1859. The epidemics in Switzerland have generally prevailed from August to October; not one has broken out later than August, and none has raged later than November. The greatest height above the sea at which cholera has prevailed has been at Laeufelfingen, 1884 feet above the sea level. The Professor urges the necessity of attending to the slightest *embarras gastrique*; of disinfecting all latrines by means of about half an ounce of sulphate of iron daily per person; of disinfecting linen by means of a solution of sulphate of zinc; and, above all, of paying the strictest attention to the drinking water—bearing in mind that this may be contaminated not only by cesspools and drains close by; but besides, as a writer has shown in the *Medical Times and Gazette*, certain geological formations may permit the defilement of wells and springs from sources of impurity at a considerable distance. An instructive accident happened at the paper factory of Kriegstetten, near Soleure. A labourer employed in sorting a newly arrived parcel of rags, was seized with cholera, and died in three days. Next died a child and adult living close by the factory, and a few days later another labourer. Orders were given that all rags should be boiled for the future before being picked.

CHOLERA AT MALTA.

It is a remarkable fact that, during the cooler weather which set in soon after the cholera invasion of Malta, the number of cases increased. Since the 2nd inst., however, the disease has been on the wane, and there is reason to believe that it will soon be extinguished. Meanwhile, both Turkey and Marseilles subject vessels from Malta to a stringent quarantine. Since the 1st the number of cases has been as follows:—1st, 23 cases, 13 deaths; 2nd, 17 cases, 13 deaths; 3rd, 9 attacks, 5 deaths; 4th, 14 cases, 6 deaths; 5th, 7 cases, 5 deaths; 6th, 8 cases, 4 deaths; 7th, 12 cases, 4 deaths; 8th, 6 cases, 5 deaths. The total of recorded cases since the first official bulletin is 294, the number of deaths being reckoned at 168 among the civil population. The outbreak at the Dominican convent, which we spoke of in our last, has been attributed, and very rightly, to the defective sanitary arrangements of the establishment. The first cases are said to have resulted from the exposure in the church of a body intended for burial, which was afterwards placed in an open coffin in one of the vaults of the convent. These vaults are badly constructed, and the monks' cells, which they immediately adjoin, are much below the level of the ground.

FROM ABROAD.—LIGATURE OF THE LINGUAL ARTERIES—M. BOULEY ON THE CATTLE PLAGUE.

M. Demarquay read at the Academy of Medicine a memoir on ligature of the lingual artery, founded on eight cases which have occurred in his own practice and on the records of other observers. He comes to the conclusions that the operation is not a difficult one, and that indications for its performance are not of unfrequent occurrence. In several instances the lingual has been tied for the purpose of arresting hæmorrhage, and this has always been arrested; and he asks why the preventive ligature of the arteries of the tongue should not be resorted to when a large tumour occupying the deep part of the organ has to be removed, for, as every one knows, whatever the form of procedure employed in such an operation, hæmorrhage is to be expected. But the main point he draws attention to is the advantageous results which follow the ligature of both linguals for the purpose of inducing atrophy of cancerous tumours of the tongue, and enabling the subjects of such to prolong their existence. In three cases he has practised the operation on patients in such unfavourable conditions, and the result has always answered his expectations. The immediate consequences of the operation have always been very simple, and, beyond some amount of temporary dysphagia due to the proximity of the artery to the pharynx, nothing has intervened to impede rapid recovery. Of course, no expectation of curing the cancer by this means is entertained by M. Demarquay. He believes that Blandin's method of exposing and tying the artery is the best.

M. Bouley has given to the Academy another of his spirited

accounts of an outbreak of the cattle plague. This time it occurred early in September, in Rhenish Bavaria, and, although unable to trace its origin, M. Bouley is no less convinced that it was there imported. However, the authorities were quite prepared to meet it by the same decisive measures as those adopted in France and Prussia. The garrison was summoned from Landau, and a military commissioner temporarily displaced the burgomaster. All the inhabitants of the infected villages were declared captives, a *cordon sanitaire*, under the severest orders, being drawn around them. The cow-houses were all demolished, and the materials of which they had been constructed buried in the earth. Dogs and poultry were shut up, and the streams were charged with sulphate of iron. Beyond this infected centre the circulation of cattle remained free. Bavaria, Wurtemburg, Hesse, and Baden have concluded a convention at Mannheim for the purpose of their mutual protection, so that all communications go on among them wherever epidemic centres are not existent. M. Bouley thinks that a similar convention is very desirable for France, Belgium, England, and Holland, which would prevent the absolute interruption of transactions between those countries, commercial liberty still prevailing in all parts where no epizootic was present. Austria has never been able to get rid of the plague entirely since 1866, and of late it has undergone a recrudescence, especially in German Austria. It is to be remarked that after great wars, and the consequent considerable movements of troops, typhus is never long in appearing. After a great destruction of men comes a great destruction of cattle. M. Bouley notices one place in Bavaria in which the Veterinary Surgeon, who had never seen a case of cattle plague, was enabled to diagnosticate it successfully by means of the plates of the third report of our Cattle Plague Commission, of which the Agricultural Society of the Palatinate had purchased thirty-two copies and distributed them among Veterinary Surgeons. In another instance the Veterinary Practitioner was not so successful. Having heard that an injected state of the vulva is one of the prodromic symptoms in the cow, he set himself to examine several times a day the genitals of all the cows of the village where he was stationed. This gave rise to great irritation of the vulva, and, observing this, he ordered seventy of the animals to be at once slaughtered, as exhibiting the early symptoms of the cattle plague. Fortunately for the owners, M. Bouley happened to arrive in time to prevent this unnecessary sacrifice.

M. Guérin maintained that M. Bouley was in no wise justified in stating that all cattle plague was imported, and that it never arose spontaneously in any of the localities in which it had been observed in the west of Europe. M. Bouley observed that this theory of the spontaneous origin of the disease leads to reliance on therapeutical procedures, and England has consequently lost 300,000 head of cattle. If we do not know exactly where cattle plague arises, we at least know it does not originate in Western Europe. All veterinarians now admit that the disease is spread by contagion. Just as by any amount of overcrowding of our military posts we shall never generate yellow fever, so, however crowded animals on animals may be in Holland, their being so will never induce the cattle plague. Facts speak loudly for the contagiousness of the disease. "We French," concludes M. Bouley, "surrounded by contagious centres, and having no other means of defence than a properly instructed Customs, which has rigorously fulfilled its duties, have been enabled to entirely preserve our cattle from the disease since September, 1865. Prussia, with Silesia for its neighbour, keeps the scourge away from its frontiers, and Bavaria at once extinguishes it. England, under the empire of the theory of spontaneity, lost 300,000 head of cattle. A bill was brought in for the prompt slaughtering of suspected beasts, and from that day the mortality decreased."

The Town Council of Birmingham have declined to appoint an Officer of Health for the borough on the score of expense.

SERGEANT-SURGEON TO THE QUEEN.

The following information on the subject of the Sergeant-Surgeoncy will be of some interest at the present time. The revived appointment of Sergeant-Surgeon - *Extraordinary*, which has been conferred on Mr. Paget, was last held, we believe, by Mr. Robert Keate. Sir William Fergusson fills the vacancy caused by the death, in July last, of Sir William Lawrence; and although the selection has only just taken place, the *Letters Patent* will bear date from that time.

The office of Sergeant-Surgeon to the Sovereign is one of great antiquity. One of the duties is to attend the King on all occasions when going to battle. Thus it appears that in 1349 John of Ardern accompanied Edward III. to the battle of Cressy. Ardern left behind him many Surgical writings, now-a-days more ludicrous than luminous, still existing in manuscript, some copies of which were made a few years ago for the library of the College of Surgeons. They are scarce as well as curious. A treatise by Ardern on fistula was translated by Read in 1588. An idea of the Surgery of those days may be obtained from Ardern's aphorism, "*notandum est quod fistula non debet curari, sed palliari.*" In 1415 Thomas Morstede, Surgeon to Henry V., attended that king in his invasion of France, and the indenture between this king and his Body-Surgeon shows that, though the number of Surgeons was small, their remuneration was by no means great, and that indeed the companions which the Surgeon was to press and to take with him were rather his servants and assistants than his equals, and that their profession by no means excused them from serving in the ranks of the army. There is a patent to Morstede and William Bredewardyn, the other Surgeon to the King, directing them to collect not only Surgeons, but other artificers (*Chirurgicos et alios artifices*), for making of the instruments necessary and proper for their mystery for the purpose of the intended expedition over sea. It appears that the fifteen assistants engaged were compelled to add a little fighting to their practice of Surgery, and three of them actually acted as archers. In Rymer's "Fœdera" it is stated that with the army which won the day at Agincourt this was the only Medical Staff, with Nicolas Colnet as Field-Surgeon. What must have been the state of the wounded after the battle? The pay of the Sergeant-Surgeon was £10 quarterly, and twelve pennies daily for subsistence. Both Colnet and Morstede could receive prisoners and plunder, but when the latter amounted to more than £20 in value a third part of it was given to the King.

The first well-authenticated record of the Sergeant-Surgeoncy was in 1451, when the barber-chirurgeons were incorporated, and William Hobbys received the appointment, with forty marks per annum and perquisites, such as the privilege of drawing two "huttes of sacke" per annum from the royal cellars, to retain all the napkins and other fine linen used in dressing the wounds of the king. The Surgeon to the sovereign was, moreover, the twelfth person in rank, and took precedence accordingly; and, abroad, the Surgeons filling this appointment were treated with distinguished consideration, as, on the death of the royal master or mistress, they were occasionally beheaded and buried with the corpse. Thus it appears that Austrigilda, wife of Gontram, King of Burgundy, had, in compliance with her dying request, her two Medical attendants slain and buried with her. These were probably the only two Medical gentlemen who were ever privileged to lie in the tombs of kings. The fees allowed to be demanded by the Surgeons are curious. We find that for curing a flesh wound that was not dangerous he was allowed no other perquisite than such of the garments as were stained with blood; but for "curing any of the dangerous or mortal wounds," he was allowed a fee of one hundred and eighty pence and his maintenance, in addition to the blood-stained garments. Sergeant-Surgeon Hobbys and Morstede were the authors of some "goodley bokes on chirurgery," which did good service in their day, and were frequently made use of by other and obscurer writers. To the Sergeant-Surgeons is assigned the duty of embalming the royal corpse, and in the "Archæologia" will be found minute par-

ticulars of the dress of the body. The use of the *cere* cloth is continued to our own days; in the instance of George II. the two Sergeant-Surgeons had £122 8s. 9d. each for opening and embalming, and the apothecary received £152 for a fine double cere cloth, and for a due quantity of rich perfumed powders.

The perquisites of the office have since been commuted by an annual stipend. Until lately, the Sergeant-Surgeons claimed, and were admitted by virtue of a Royal Charter, to seats in the Council and Court of Examiners of the Royal College of Surgeons. This, however, has been repealed, and, as already stated, Sir William Fergusson holds seats in both departments, and Mr. Paget in the Council. The senior Sergeant-Surgeon is Mr. Cæsar Henry Hawkins, F.R.S., who succeeded Sir Benjamin Brodie. Mr. Hawkins is the talented representative of the College in the General Council of Medical Education and Registration, and was twice President of the College. It may be said that he represents a clan of the *Hawkins*, seeing that he is the fifth of his family who has held the important office—viz., his grandfather, Sir Cæsar Hawkins, whose son, Mr. Charles Hawkins, and nephew, Mr. George Hawkins, all Surgeons to St. George's Hospital, and Sir Cæsar's brother, Mr. Pennill Hawkins, Surgeon to the Middlesex Hospital; all held the office. This short and perhaps imperfect history of the Sergeant-Surgeoncy would not be complete without some account of those gentlemen who have occupied the position. Taking them, then, in alphabetical, as more easy for reference than chronological order, we find:—

1. Adair, Robert, Sergeant-Surgeon to George III. and George IV., Surgeon to the Forces at the Siege of Quebec, of whom it is said "he was the favourite of princes, of women, and of fortune." His portrait was painted by Abbott, engraved by J. Jones.

2. Amyand, Claudius, to George III.

3. Balthorpe, Robert, to Queen Elizabeth.

4. Bernard, Charles, to Queen Anne, of whom there is an original portrait at Barbers' Hall, which has not been engraved; he had a large and curious library, which was sold in 1771. The "*Spaccio della Bestia triomfante*," alluded to in the *Spectator*, No. 389, was in this sale and fetched £28; it was afterwards sold for £50.

5. Brodie, Sir Benjamin Collins, Bart., to William IV. and Queen Victoria, Surgeon to St. George's Hospital, President of the Royal College of Surgeons in 1844. The reader is referred to his life and works by Mr. Charles Hawkins.

6. Cheselden, William, to Queen Caroline, wife of George II., unquestionably the first lithotomist of the day, and called the first operator in Europe, Surgeon to St. Thomas's Hospital, author of the "Osteogeny." He was a great friend of Pope, and when the Foundling Hospital was proposed he sent a benefaction with two lines from his favourite poet.

> "Tis what the happy to the unhappy owe,
> For what man gives, the gods by him bestow."

He was a Fellow of the Royal Society at 21, and delivered lectures at 22 years of age. Portrait by Richardson at the College of Surgeons, engraved by J. Faber. He died in 1752.

7. Clowes, William, to Charles I., Master of the Company of Barber Chirurgeons.

8. Cooper, Sir Astley Paston, Bart., to George IV., William IV., and her present Majesty, Surgeon to Guy's Hospital, twice President of the Royal College of Surgeons—viz., in 1827 and 1836. See his life by Bransby Cooper. His portrait by Lawrence is in the College of Surgeons; it has been engraved by Cousins.

9. Dickens, Ambrose, to Queen Anne. He died in 1747, and was succeeded by Sir Cæsar Hawkins. There is an engraving from a small miniature of him.

10. Dundas, Sir David, Bart., to George III. and George IV. Thrice "*Master*" of the College of Surgeons—viz., in 1804, 1811, and 1819.

11. Freake, John, to Queen Anne, Surgeon to St. Bartholomew's Hospital. He gave a fine collection of coins and medals to the University of Oxford, which are now in the Bodleian Collection. There is an engraving of him by G. Vertue.

12. Fergusson, Sir William, Bart., to her present Majesty. Surgeon to King's College Hospital, Professor of Surgery to the College, a Member of the Council and Court of Examiners of the Royal College of Surgeons; succeeded to the Sergeant-Surgeoncy on the death of Sir William Lawrence.

13. Ferris, Richard, to Queen Elizabeth.

14. Gataker, Thomas, Sergeant-Surgeon *Extraordinary* to George III.

15. Godorus, William, to Queen Elizabeth.

16. Hawkins, Sir Cæsar, Bart., to George III., Surgeon to St. George's Hospital. In conjunction with Dr. Heberden, "Surgeon" Hawkins was ordered by the House of Commons to attend the celebrated Mr. Wilkes, M.P., of the *North Briton*, for the publication of No. 45 of which he was subjected to a State prosecution. It was common in the *spring* and *fall* for our forefathers to go through a course of bleeding, and it is related that Sir Cæsar, who retired about 1777, made 1000 guineas per annum by his lancet alone. There is an excellent portrait of this gentleman by Hogarth in the College of Surgeons.

17. Hawkins, Charles, to George III., son of the above, and also Surgeon to St. George's Hospital. "*Master*" of the Royal College of Surgeons in 1800 and 1806.

18. Hawkins, George Edward, to George III., nephew of Sir Cæsar, and Surgeon to St. George's Hospital.

19. Hawkins, Pennell, to George III., brother to Sir Cæsar, was a member of the Court of Assistants of the College of Surgeons.

20. Hawkins, Cæsar Henry, to her present Majesty, is grandson of Sir Cæsar. Has been twice President of the College of Surgeons—viz., in 1852 and in 1861—is its representative at the General Medical Council, and Consulting Surgeon to St. George's Hospital.

21. Hobbys, William, the first Sergeant-Surgeon, 1461, who was appointed with a salary of 40 marks per annum. He was the author of a work on Chirurgery.

22. Home, Sir Everard, Bart., to George III. and George IV. "*Master*" of the Royal College of Surgeons in 1813, and President in 1821, Surgeon to St. George's Hospital, brother-in-law of John Hunter.

23. Keate, Robert, Sergeant-Surgeon *Extraordinary* to William IV., and Sergeant-Surgeon to her Majesty, Surgeon to St. George's Hospital, Acting President of the College of Surgeons during the illness, and subsequently to the death, of Mr. Headington in 1830, President in 1831 and 1839.

24. Lawrence, Sir William, Bart., to her Majesty, Surgeon to St. Bartholomew's Hospital, President of the Royal College of Surgeons in 1846 and 1855, succeeded Sir Benjamin Brodie.

25. Macgregor, Sir Patrick, Bart., to George III. and George IV.

26. Middleton, David, to George III. There is a good portrait in the College of Surgeons.

27. Paget, James, Sergeant-Surgeon-*Extraordinary* to her present Majesty. Senior Surgeon to St. Bartholomew's Hospital; a member of the Council of the College of Surgeons.

28. Primrose, Gilbert, to James I.

29. Ranby, John, to George II. "A man of strong passions, harsh voice, and inelegant manners:" "the blockhead," as Queen Caroline called him, before submitting to an operation for hernia, of which she died. He presented the large silver cup to the Corporation of Surgeons on its separation from the Barbers' Company in 1745.

30. St. Andre, to George I.

31. Travers, Benjamin, to her present Majesty. Surgeon to St. Thomas's Hospital, President of the Royal College of Surgeons in 1847 and 1856, an elegant writer, and of whom it is deservedly recorded that he was one of the most gentlemanly of examiners at that institution.

32. Vicary, Thomas, to Henry VIII., Edward VI., Mary, and Elizabeth. Master of the Barber-Surgeons' Company; he is represented in Holbein's celebrated picture in the possession of the College of Surgeons. Vicary is the first in the list of Barber-Surgeons with the denomination of Surgeon.

33. Wiseman, Richard, to Charles II.

It is believed that the above contains the names of those gentlemen who have filled the office of Sergeant-Surgeon to the Sovereign. It would not, however, be complete without adding Paul de Laune, an elect of the College of Physicians, who went to America when 70 years old, and was with the fleet at the taking of Jamaica, and was Physician-General by appointment from Oliver Cromwell; and Thomas Trapham, in whose favour nothing can be recorded; he was Surgeon to Cromwell.

ACTION OF BORIC ACID ON MUSCLES.—It has been proved by the experiments which Herr Brücke has described to the Academy of Sciences at Vienna, that boric acid preserves the irritability of muscles for a very much longer period than water does. Herr Brücke observes that arsenious acid has also a like preservative action, but in a less degree.

NOTES ON MEDICAL EDUCATION.

THE SYSTEM OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. IV.

In resuming our "Notes on Medical Education," we proceed to make a few further observations on the mode of appointment of the teachers in the Medical Faculty of Paris. We have already stated that, *as a general rule*, these appointments are made after a severe public competition, and that in every case a candidate must have given evidence of his ability to undertake the duties of the Professorial chair before he can be appointed to a Professorship. The same principle is carried out in the appointment of the Medical officers of the Hospitals of Paris.

It is so obvious, so consistent with common sense and common experience, that it is impossible to ascertain the relative teaching power of rival candidates for a Professorial chair without some practical test—a previous public trial—that it seems wonderful that in this common-sense practical country we should not long ago have adopted some such method in the selection of candidates for appointments in our Medical Schools. It would naturally follow any attempt at combination and centralisation of our schools.

We should, however, lay ourselves open to the charge of partiality if we were not to admit that in the circumstances which commonly attend the practical working of this system of public competition in Paris, there exist certain evils. In the first place, we are assured that the members of the juries which preside over the *concours* are not always free from bias, and that a system of attempting, privately, to secure the favour and friendship of the judges is very commonly followed, and is by no means discouraged, and that it is an almost invariable rule for candidates to make complimentary and conciliatory calls on those who are known to be likely to be members of the juries. But, after all, the *public* character of the competition, although it may not prevent favouritism when the rival candidates are much of the same level, yet it must absolutely prevent the possibility of passing over a man of distinguished ability, or of appointing a man who is notoriously incompetent. A clever able man must come to the surface; a dull stupid man cannot by any chance succeed. So that, although this system, in its practical application, may not be entirely faultless, it at any rate secures the appointment of competent men, and renders the rejection of a man of decided talent impossible. It therefore favours the development of teaching power, and in this way promotes educational progress.

Moreover, for our purpose we are not concerned in searching out the blots and defects in our neighbours' method of carrying out their system. We have only to do with the system as a system, and we say that it is a good one; and if they do not make the most of it, it is their own fault.

Another objection which has been made against this system is that it lacks the element of freedom. So, to a certain extent, it does. But does our system afford more liberty to our teachers? Do we suffer a more tolerable bondage in our own Medical schools? We own, for our part, we infinitely prefer the single authoritative absolute rule which is seen in the French system to the numerous petty tyrannies which govern ours. If we are to have freedom in education—if we are to boast of our free institutions—give us entire, perfect freedom. Are the Professors of our Medical schools so blind, so dull, that they can believe that they exercise their functions in freedom? Are they not bound down in the most helpless bondage by the regulations of the licensing bodies and by the rules of the particular schools with which they are connected?

Can A., B., or C., however great their scientific reputation, however great their capacity for teaching, become teachers of Medical science when they will? Can they exercise the powers which they feel and are admitted to possess? Certainly not. There is no freedom for them. They *must* become connected with a recognised Medical school, before their labours can be of any use to themselves or others. They must share the fortunes of that school, be they good or bad; they must share the popularity or unpopularity of their colleagues. They must submit to be dictated to, to be taxed, and to be worried by committees, boards, councils, secretaries, and a hideous host of hores. Is this freedom? Their fees are fixed by others, taxed by others; their method of teaching criticised; their amiability of temper canvassed. We have even heard that, at one of the colleges in London, it was seriously proposed to employ the *markers* to mark the regularity or want of regularity in the attendance of the Professors!!

We trust that no *Medical* Professors have been found of so poor a spirit as to submit to such an indignity.

And this is *our* freedom! We confess that to us it has the effect of an intolerable tyranny. Why is it that our most distinguished and successful teachers withdraw so early in life from their Professorial duties, and are so soon lost to our educational institutions? It is commonly stated that the increasing pressure of private Professional engagements is the cause of this; but we have reason to know that, in many instances, this has not been the chief and determining reason. On the contrary, it has been the petty annoyances, jealousies, and interferences to which a popular Professor is subjected under our system, that have led to many of those premature retirements. There is a great charm and attraction in the work of teaching to a man who feels he has the power to teach, and who is allowed to exercise that power in perfect freedom; but the miserable, small, vexatious tyranny of boards and treasurers and secretaries is of all things the most intolerable to an able, conscientious, and high-spirited teacher. To be working under a great, well-developed, well-understood, centralised system, although it may lack somewhat the spirit of freedom, is a labour infinitely more desirable and more productive than to be working entirely without system, harnessed in an ill-matched team, where individual independence is absolutely impossible.

If it is altogether impracticable to apply the Continental system to our own Medical schools, let us, at any rate, have the next best thing to this; and that is perfect freedom. Let any one teach who can teach, and who is able to get a class together. By all means let such courses be in accordance with definite rules, and subject to visitation, and, if need be, to some simple licence; but so far as Professor and pupils are concerned, let them be free. Let the Professor be free to lecture where he chooses, and to whom he chooses, and let the pupils be free to choose whatever Professors they please. It is very obvious that there would be many inconveniences attending this perfect free-trade in teaching; and although we should prefer it much to the system of numerous small schools which at present exists, yet we cannot conceal our decided leaning in favour of the authoritative, centralised system of the Continental schools, if only for its great convenience. London is probably too large and too scattered for *one* school only, but we might easily have *three* Medical schools, conveniently situated in different districts of the Metropolis, distinct and separate from the Hospitals, and placed under the control and direction of the Medical Council. About an equal number of pupils might be apportioned to each of the three schools, according to their places of residence, while the Hospitals, as in Paris, might be freely open to all. Certain of the larger and more important Hospitals being selected for the required clinical courses, the Medical officers of the other Hospitals would be at liberty to give extra clinical courses whenever they felt disposed, and the popularity of these courses would depend upon their attractiveness. The post of Professor in one of the central schools would then be necessarily a well-paid office, and would be looked upon as one of the highest prizes which our Profession could award to its members. The appointments should be made in accordance with a well-arranged scheme of public competition. By the adoption of such a system as we have here roughly sketched, the progress of scientific research would be encouraged, rational and catholic processes of investigating Medical subjects would be promoted, and a powerful stimulus would be given to the growth of a better method of Medical education. The Hospitals and Hospital appointments would not be in any way interfered with. All the Hospitals might be made use of as arenas for clinical instruction, and to a much greater extent than they are at present. A good clinical teacher would no longer have to look only to his own school for a class, but to all London. Teaching would no longer be the dull routine work it now is, because then a teacher's

success—his class or following—would depend upon his own exertions, and in proportion to his success and reputation as a clinical teacher in his own Hospital would be the probability of his appointment to one of the Professorships in the central schools.

We are persuaded that, if all the Medical schools in London were broken up to-morrow, and a perfectly free system of teaching tolerated, some such scheme as we have attempted to describe would grow out of it. There would be a *rapprochement* of the best and most earnest teachers, and two or three great centralised schools would be established. We should get rid of that fatal mistake which has been, and ever will be as long as it exists, the bane and opprobrium of Medical education in this country—we allude to the establishment of a Medical school in connexion with almost every Hospital in the Metropolis. Hospital and Medical school have become, with us, almost synonymous and convertible terms. Yet no two things can be more distinct. A Hospital is essentially a public charity, founded and maintained by the benevolence of individuals. A Medical school is merely an educational establishment, and has nothing whatever to do either with public charity or individual benevolence. The blending of these two—the attempt at uniting charity with self-interest—has been productive of the very worst vices that have ever stained the Medical character.

In advocating the separation of the Medical schools from the Hospitals, what have we opposed to us? Reason and strong arguments? No. The superior convenience of the present arrangement? No. The public good? No. The progress of Medical science? No. What opposition have we then? An influence stronger than all these—an influence always more powerful than any other in hindering or arresting all reforms, all desirable changes. The simple, single, prevailing influence of selfishness—the personal interests of a few individuals. And do we lack courage to such an extent as to fear to rise up against the tyranny of such a vice? Let us fervently hope that we shall never show ourselves to be such cowards. Therefore we say, separate the Medical schools from the Hospitals, and you will have achieved the first and most important step towards the establishment of an improved system of Medical education in this country.

We must leave this part of our subject for the present, and proceed to occupy ourselves with the comparison of the methods of clinical teaching in Paris and in London. Clinical teaching is certainly a very weak point with us, and our *Medical* clinical courses, at least, will not bear comparison with those delivered in the Hospitals of Paris. This remarkable difference in the character of the clinical teaching in this city and in Paris is easily accounted for when we call to mind the fact that in the Faculty of Medicine of Paris there are no less than *nine* well-paid clinical chairs—four of clinical Medicine, four of clinical Surgery, and one of clinical obstetrics. These Professorships have been established for the purpose of providing the student in Medicine with *regular* and *frequent* clinical instruction; and the consequence is that *regular* and *frequent* clinical instruction is given.

With us, we have no means of endowing similar Professorships, for the simple reason that we allow our Medical students to be scattered, and our available resources to be thereby weakened and impoverished. If the amount of money that is expended in keeping open eleven schools were devoted to the maintenance of three only, ample provision might be made for the endowment of clinical Professorships. The *daily* early morning visit to the Hospital also conduces probably to good clinical teaching. At that hour the teacher is not hurried, and by seeing his cases *daily* he naturally knows more of the details of treatment, becomes really more familiar with his cases, and, therefore, he can talk better about them than if he visited the Hospital but twice or three times a week.

What do we get in the way of clinical lectures from most of our best teachers in London? A lecture once a fortnight! Whereas in Paris the same teacher will commonly give two and three lectures every week—not hasty gossiping sketches, but well prepared, well thought-out discourses. It is very certain that in a large Hospital but scant justice can be done to its resources for clinical teaching by an hour's lecture, delivered once a fortnight; and, when there is a large class, the few remarks dropped at the bedside, however instructive they may be, can only reach those few pupils who are near the teacher. So long, however as our Hospital Physicians and Surgeons are not paid specially to give clinical courses, we fear we shall continue to hear the common complaint of the insufficiency of the clinical instruction afforded at most of our Medical schools. Since we leave clinical lecturing much to the convenience of the Medical officers of our Hospitals, they too frequently content themselves with giving the smallest amount they decently can.

But in addition to the regular clinical courses required to be delivered by the regulations of the Faculty of Medicine of Paris, there are numerous other courses, equally good and equally valuable, given with great frequency and great regularity in the large special Hospitals of Paris. In the Hospital for Sick Children in the Rue de Sèvres, three excellent clinical lectures are constantly given weekly.

So also at St. Louis, the Hospital for Diseases of the Skin, two or three clinical lectures every week are regularly delivered; and the same remark will apply to nearly all the Hospitals of Paris. It must be remembered that these cliniques are freely open to every student of Medicine. But this is not all that is done in the way of clinical teaching in Paris. Every Medical Practitioner of any eminence seems anxious to give clinical instruction, and there are consequently a great number of private cliniques on special subjects of great interest and importance to which the Medical student and Practitioner are freely invited.

It must at once be conceded that we have no such activity in clinical teaching in this metropolis, and it is for this reason that the English student finds it so profitable to spend a year or six months in attending the Hospitals of Paris. The excellence of the clinical instruction to be obtained there is not distantly approached in London.

Why is this? It is not that we do not understand disease as well as our Parisian *confrères;* it is not that we are less successful in the treatment of disease; neither is it because we are altogether wanting in men capable of lecturing well and attractively. It is from none of these reasons; but it is because, as we have repeatedly stated, our resources are scattered and disorganised; it is because we lack unity in our system; it is because there is less inducement to activity and earnestness in teaching when the influence of the teacher's efforts cannot reach beyond the limited circle of his own school. His audience will be much the same whether he lecture well or badly, whether he take infinite pains to prepare a well-digested discourse, or whether he trust to his memory and his volubility to chat for an hour, in a loose illogical way, about a few interesting cases.

It is a far different matter when a man can appeal to the whole Medical world of a large city for an audience. This is the case in Paris and in most of the chief capitals of Europe. In these places men can gain great distinction by their clinical teaching. A strong motive for exertion and emulation in their work is thus provided, and we therefore commonly find that their clinical courses bear marks of great labour, thought, and skill. They serve the young Physician and Surgeon as a passport to fame and position. It is not so here. Imagine a teacher in one of our smallest Medical schools, eager and earnest to engage in clinical teaching, with knowledge, talent, eloquence, and power; how can he make himself felt? He cannot. His talent is buried, lost, confined strictly to the narrow limit of his own school. Whatever pains he may take, however capable he may be, he cannot extend his class; his reputation cannot spread beyond the limited area in which circumstances have placed him. If the teachers are fettered, how is it with the pupils? Under the existing arrangements of our Medical schools, the pupil is obliged to take his clinical teaching as he finds it in his own school; if it is bad, he must be content with it—he can get no better. And yet the importance of clinical teaching cannot be over-rated. It is by far the most essential part of Medical education. Every one will admit that it is of incalculably greater value than the systematic courses on the practice of Medicine and Surgery which are given in our schools, and which can only be a reproduction of what is to be found in text-books. Although the truth of these statements will be readily conceded, yet we *cannot* get efficient clinical teaching in our schools generally, and we fail and fall behind our neighbours in this most important branch of Medical education, because of the langour and ineffectiveness which are inseparable from our system of subdivision of schools—a system which offers no inducement to great effort. We risk incurring the charge of being monotonous, when we again reiterate that the remedy for all this is to be found in the combination and concentration of our Medical schools.

In our next article we shall pass on to consider the nature of the curriculum of Medical studies prescribed by the French Faculty, and attempt to compare it with our own.

REVIEWS.

Companion to the New Edition of the British Pharmacopœia, 1867, showing the Strength of the various Preparations, with those of the London, Edinburgh, and Dublin, United States, and other Foreign Pharmacopœias; with Practical Hints on Prescribing. By PETER SQUIRE, F.L.S., Chemist on the Establishment of the Queen, etc., etc. Fifth Edition. London. 1867.

THE former editions of Mr. Squire's "Companion" received and deserved all the praise which a critic is capable of bestowing. We praised the paper and clearness of type, so comfortable for those whose eyes begin to fail under the influence of years of anxious labour; we praised the compactness and orderly arrangement, whereby any given thing could be found easily in the least possible time; and we praised the abundance of material, and its quality, for Mr. Squire does not present his readers with a lukewarm hash of opinions that have dribbled through lines of text-books from time immemorial, but with the new results of living experience fresh from the laboratory. We should have thought it impossible to have improved on Mr. Squire's book. So Woelfl thought of his own music, when he proudly inscribed *Ne Plus Ultrà* on his favourite sonata. Dussek, however, took up the challenge thus thrown to the musical world, and produced a better sonata, which he called *Plus Ultrà*. But it is only Mr. Squire who could write *plus ultrà* on a pharmaceutical work; and his former effort is surpassed. It is only himself who could have achieved the feat. It is, in reality, wonderful to see the amount and variety of information marshalled in well-drilled order within the smallest space in this book.

Let us suppose that any prescriber desires to know the pedigree of any given preparation in the latest Pharmacopœia. Is it altogether new? Was it in the British Pharmacopœia of 1864? Or is it one of the old familiar London, or Edinburgh, or Dublin preparations?—if so, which? and is it the same or altered—stronger or weaker? Mr. Squire's first table will give all these details at a glance. Next follows a table, showing such preparations of the London, Edinburgh, or Dublin Pharmacopœias as exist in the present Pharmacopœia, altered. Then follow copious tables of weights and measures, and of their international equivalents. Now we come to the body of the book, in which the names, Latin and English, Continental and American, the definition, composition, tests, medicinal properties, doses, and incompatibles of every substance are given. But, as we have said, it is not merely what a "Companion to the Pharmacopœia" may be expected to give, but many practical hints and facts besides, that enrich Mr. Squire's pages. For instance, in the very first page, relating to acacia, we learn that 40 of gum by weight, and 60 of water by measure, yield 87 by measure of "mucilago:" hence that 4 of gum are contained not in *ten* parts, but in about 8¾ of the mucilage. Amongst the *incompatibles* we see borax, and learn that a mixture of borax and mucilage becomes solid. This may, perhaps, be as new to many of our readers as it was to us, and may prevent them from attempting a useless combination. The uses of mucilage of acacia in dispensing and compounding, the purposes which it answers best, and those in which it is inferior to others of its class, are all laid before us. For instance, we learn that 1 part of tragacanth gives more viscosity to water than 25 parts of gum arabic; and that it is much the better of the two for the suspension of bismuth and heavy powders. Under the head Argenti Nitras, we find the following:—

"It is stated by Brande, Garrod, and Ure, that this salt is soluble in its own weight of water at 60° F., and in half its weight at 212°; but the author finds that it is soluble in half its weight of water at 60° F."

But it is not merely the Pharmacopœial preparations which are treated of here. We find almost every medicine of repute in regular or irregular practice. We have a notice of the common comfrey, and of its uses in making splints for broken bones; of pepsine, whether Boudault's or Bullock's; and there is a goodly list of "recent preparations," including the more valuable saline substances in a state of granulation, suppositories, medicated pessaries, medicated bougies, medicated pledgets of cotton for uterine affections, and the so-called American eclectic remedies. One curious query there is about the use of a medicine which has been extensively heard of, which demands to be set at rest by careful experiment. The question is as to the reaction and powers of the pancreatic juice, as to which Mr. Squire adduces the authority of Baron Corvisart.

"The pancreatic juice," says the Baron, "is generally, if not always, *alkaline*, as it issues from the gland and its canals, even if examined two minutes after death; or if the juice be conducted during life by a tube to the outside of the body, it is found alkaline to test-paper.

"When, however, this alkaline pancreatic juice passes into the intestine during digestion, it meets with the acid chyme coming from the stomach, and the alkalinity is overpowered. This is a well-known fact.

"Out of the body the pancreatic juice, whilst alkaline, will digest nitrogenous aliments, or if acidified, as it is found naturally in the intestines, it will also digest; so that, when experimenting out of the body, it digests whether it be in an alkaline or an acid state.

"If two vases are employed, and in the one is placed gastric juice and in the other pancreatic juice, each will, whilst kept separate, digest well nitrogenous aliments; but if, previous to the experiment, the two juices be mixed, the mixture digests imperfectly, because the two juices destroy each other in part; therefore (says the Baron) I conclude, with nature, that pancreatic juice should not mix with the juices of the stomach, nor be placed therein medicinally, unless protected by some envelope that shall convey it into the intestine at its natural place."

The proper reply would be, that, no matter what Baron Corvisart's experiments may teach, pancreatic juice does in practice cure the consumptive, or, at least, check phthisis. But to establish this fact, a more exact demonstration and method of proof is required than any yet adopted; and if a great many other drugs were weighed in the same scales, we suspect they would fare no better than the pancreatic emulsion. We recollect an ancient Physician who boasted of his success in curing hæmoptysis. His remedy was acetate of lead, mixed with dilute sulphuric acid. When cautioned by a pert junior as to the incompatibility of the lead and acid, he simply pointed to his cures, and said that the results of thirty years' experience were not to be put aside by any chemical notion of incompatibility.

Via Medica; a Treatise on the Laws and Customs of the Medical Profession, in relation especially to Principals and Assistants; with Suggestions and Advice to Students on Preliminary Education. By J. BAXTER LANGLEY, M.R.C.S., F.L.S. London: Hardwicke. Pp. 126.

WE have read Mr. Langley's little work with great care, and we are happy to say that we most cordially approve of it. We say we have read it with care, for the number of applications which reach us begging information on many points connected with the relationship of master and pupil, superior and assistant, have made us anxious to ascertain whether the information here afforded is ample enough to supply all the wants of principal and assistant. On the legal relations of these Mr. Langley is clear, precise, and accurate, three qualities which make up for any deficiencies elsewhere; for that there are certain points on which we are not agreed with Mr. Langley, we will not deny, but as these refer chiefly to educational matters—points on which there is just now a charming want of unanimity—we say nothing more than that the course advocated by Mr. Langley seems as well adapted for a man who looks forward to becoming an assistant as any other. For one who aims at higher things, the course to be adopted must be quite different. His advice to assistants contains much sound sense, and we would advise every young man who goes out in that capacity for the first time to carefully study Mr. Langley's book, for he will thereby acquire more accurate knowledge of his duties and of his position than he might otherwise do for years. We have remarked upon the clear and precise language ordinarily employed by Mr. Langley; we are sorry that he has not universally adhered to it. Thus, instead of saying that a man was condemned to penal servitude, we are told that "he left London for a term of years to study discipline and practise temperance, at her Majesty's expense, on a picturesque island near Weymouth;" again, instead of telling us that a man was sent to the treadmill, he says that "he retired to take muscular exercise for three months upon rotatory steps, in a strictly secluded residence in Coldbath-fields." Some people may think this funny; we confess we do not, and would advise Mr. Langley, should his work reach a second edition—

which it doubtless will soon—to put all he has got to say in plain language. Still, these are minor blemishes; as a whole, the work is good, and likely to do good service.

FOREIGN CORRESPONDENCE.

FRANCE.

PARIS, October 15.

DURING the fortnight which has just elapsed, there were some reasons for apprehending a visit from our old friend the cholera. A great deal of bilious derangement prevailed both in town and in the Hospitals; and a few *real* cases of the Asiatic disease, some of which terminated fatally, did occur. Fortunately, however, the disease did not spread, and the year of the Exhibition will have passed away without being marked by an epidemic visitation of cholera in this city.

The fact goes far to confirm the views brought forward by M. Husson, Director-General of the Paris Hospitals. Relying upon a vast array of figures, this gentlemen establishes it as a law that cholera never prevails three successive years in the same place. Theoretically, this might be accounted for by supposing that after two such visitations all persons who have the slightest predisposition to the disease have caught it; practically, the conditions in which Paris was placed during the Exhibition would seem to set ordinary rules at defiance, since, from all quarters of the world, thousands of strangers have been pouring in. Be this as it may, it is certain that during the year 1867 we have hitherto escaped the two great evils which seemed to be impending over us—war and pestilence — either of which would have entirely ruined the Exhibition, and made it a commercial failure.

During the present month the afflux of strangers continues to be very great, probably because all those who have hitherto neglected to come feel that this is their last opportunity. On Sunday, the 6th inst., the number of visitors amounted to 110,000.

In the meantime, the Faculty, which closed its lectures a fortnight earlier than usual, is in no particular hurry to open them again; November 4 is the day fixed upon for resuming business. No doubt the Minister of Public Instruction is anxious to keep out of town as long as possible the turbulent young men who have been giving him so much trouble; so that, by their misconduct, the students have gained a three weeks' holiday.

The Medical world, which has of late experienced so many severe losses, was astonished last week by the sudden death of Dr. Foucher. This gentleman, one of our most promising Surgeons, and who would probably have filled one of the two vacant chairs at the Faculty, was only 45 years of age. He had for some years been the official Lecturer on Diseases of the Eye. He had just brought out an interesting and well-written treatise on Surgical Diagnosis. Dr. Foucher, who was in all respects a worthy and amiable man, was entirely free from all the narrow prejudices which frequently beset the mind of a French *savant*. He was one of the few Paris Surgeons who from the outset gave the system of acupressure a fair trial. His death, which occurred on the 6th inst., at the very moment when he was going to attend his Hospital duties, is supposed to have resulted from the rupture of an aneurism.

Dr. Foucher's death opens a fine field for his competitors. It is generally supposed that the Chair of Anatomy vacated by Professor Jarjavay, who becomes the successor of Nélaton in the Chair of Clinical Surgery, will be filled by Dr. Sappey. The principal candidates for the second chair (External Pathology) are Drs. Vaillemier and Verneuil.

SPONTANEOUS GENERATION.—At the meeting of the French Academy on the 7th, M. Donné, who for the last couple of years has been the strenuous advocate of spontaneous generation, recanted in favour of M. Pasteur's views. He has been led to this result by his last experiment in support of the doctrine of heterogeny. This experiment, like the many others he has from time to time described to the Academy, consisted in placing an egg under a receiver, then allowing water to enter the pores and replace the air, and finally in shaking together the yelk and the white, and allowing them to stand by for some time. Eggs exposed to these conditions for six months showed no traces of living beings even of the most "microscopic" dimensions.

GENERAL CORRESPONDENCE.

THE TRIAL AND CONDEMNATION OF ALLEGED CRIMINAL LUNATICS.

LETTER FROM PROFESSOR LAYCOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you pardon me the expression of my dissent from the opinions expressed under "Topics of the Day" regarding the case of Louis Bordier and the principles of jurisprudence in cases of alleged criminal lunacy? I have not seen the letters published in the *Morning Star* to which you refer, but the quotations the writer gives us are sufficient for my purpose. It appears that Mr. Gowlland, the Surgeon who attended Louis Bordier for fistula, has observed "great despondency" in these diseases of the rectum, and "melancholia and suicidal mania as a result." Upon this statement of facts the writer comments thus:—"Now, this kind of evidence appears to us very dangerous. The theory that connects homicidal mania with fistula is certainly novel. If it be a true one, St. Mark's Hospital ought to be placed under the Commissioners of Lunacy, and no patient should be allowed to go from it except under surveillance." Upon reconsideration of the matter, your writer will perhaps see that Mr. Gowlland states no theory of "*homicidal* mania," but states as a fact within his experience that these diseases are not uncommonly associated with despondency, and with melancholia and *suicidal* mania as a result. It is much the same as if a Practitioner had stated as a fact within his experience that parturition and mania are not uncommonly associated. So that the jocose suggestion that St. Mark's Hospital should be placed under the Commissioners in Lunacy would apply with equal force to Maternity Hospitals. Why the facts stated by Mr. Gowlland (the truth of which is not questioned) should appear very dangerous to the writer is rather implied than expressed in the next sentences. "The simple question is—Did Bordier know that he was infringing the laws of the country in which he lived when he cut the throat of his paramour? If he did, he is amenable to those laws." Here the writer propounds a question of legal responsibility, certainly simple enough, but at the same time so comprehensive that three-fourths at least of the insane under detention in Hospitals or asylums would be hanged if found guilty of "homicidal mania." At page 419 you record "a horrible case of child murder under the influence of fanaticism or religious insanity." No one with even but a small experience of the insane can doubt the murderer was a lunatic. Yet he knew well his wife would prevent him committing the murder, and when she came in and found the deed done he said—"Go to the mayor, and tell him all," thus showing that he knew he was amenable to the laws, and therefore (following the legal *dictum*) legally responsible. In truth, however, the writer objects "that there is absolutely no evidence of insanity in the case [of Bordier] besides his crime." Now, I must take the liberty of saying that the facts, even as stated by the adverse writer, are conclusive, to my mind, to the contrary. It is always more or less presumptuous to give an opinion on a case without seeing the patient, but I think there is no one familiar with insanity that will not agree with me in this opinion. The most dangerous thing in these cases is that the miserable sufferers are allowed to suffer on—suffering the greatest anguish that in my opinion human nature can suffer—until they murder those that are dearest to them; those, in short, for whom in their sound mind they would have died. So constantly is this observed in that particular kind of melancholia with which Bordier was affected, that it is probable he had a strong affection for his paramour before his brain gave way.

It is an old complaint that to acquit murderers like Bordier, on the ground of insanity, is very dangerous, because it tends to encourage murder by lessening that fear of death which is the only restraint some men are capable of. I am no advocate for the out-and-out abolition of capital punishment, but I am also satisfied the legal dicta as to insanity and the responsibility of the insane are wholly incompatible with that final resource of justice. Year after year bloodthirsty leaders have appeared in the newspapers, calling for vengeance on insane murderers, and year after year sensational paragraphs, headed "The Murder Epidemic," have served to stimulate judges and juries, and the insane have been duly hung as an example to others. Stubborn facts incontestably prove, however, that it is a pure hypothesis to suppose that it is expedient or useful

to hang, or condemn to be hanged, miserable wretches, from disease, want, and despair, that hardened healthy ruffians may be frightened. To some minds, the uncertainty of the law must of itself be a temptation to try the chances, for it is a mere chance whether a man will be found guilty or not, or, if found guilty, whether he will be hanged or not. A Prichard may think he has as good a chance of escape as another, however insane that other may be.

It is "very dangerous" to perpetrate an outrage upon the fundamental sentiments of justice. I know, indeed, no more miserable sight than to see a poor lunatic or imbecile upon his trial for murder, with a strictly legal judge presiding, and mercilessly enforcing his knowledge-of-right-and-wrong dogma against the uncomprehending wretch at the bar, with all the appropriate technicalities. I do not blame him; I feel convinced he is doing what he strongly feels to be his duty in the repression of murder. Nay, I pity him, for when he leaves his court and lays his legal technicalities aside, the thought of the helpless, feeble-minded wretch that he has but lately condemned to die touches his humanity, and awakens something like suspicious regret, if not remorse; and the morrow perhaps finds him pleading for the convict he has sentenced to die.

One word as to these insane murderers. To them death ought to be welcome; it often is very welcome; and it is assuredly a happy release from a state of terrible anguish. Upon whom, then, does their punishment fall? Too often—too surely—upon their poverty-stricken widows and orphaned children. Such is the kind of justice, as it appears to me, that your critic pleads for. I am, &c. T. Laycock.

13, Walker-street, Edinburgh, October 14.

Letter from Dr. W. Wood.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to corroborate the statement contained in Mr. Gowlland's letter in reference to the case of the convict Bordier, on which you comment. It is quite true that extreme mental depression not unfrequently attends cases of fistula, and you may remember that, some ten years ago, a very sad case occurred in the person of an Italian named Buranelli, who became a patient in Middlesex Hospital on account of a very trifling fistula, and whose mind was so much disturbed in reference to this fistula that he maintained, after it had entirely healed, that his bed was swamped with water escaping through it. Buranelli also committed a murder, and Mr. Mitchell Henry, the Surgeon under whose care he had been in the Hospital, was so strongly impressed with the conviction that he was of unsound mind, that he voluntarily came forward, and at the trial gave the clearest evidence in support of his opinion. It was most properly pointed out that not only did the wretched man entertain this distinct delusion, but that his character was changed, and that, being naturally mild and amiable, he had become violent and ungovernable; but, notwithstanding this, he was convicted and executed. It is then of some importance to remember that the case of Bordier is not used to support a new theory. The connexion between fistula and an unsound state of mind is an established fact, and the cases of Buranelli and Bordier bear a striking resemblance to one another in various particulars. I cannot conclude without protesting against the doctrine that, if a person knows he is infringing the law, he is to be necessarily held amenable. The experience of every one who has had to do with the insane will support me in asserting that the great majority of insane persons know perfectly well when they are doing what is forbidden, and that unless we are prepared to ignore the mental condition of offenders, we must recognise the fact that they are influenced by different motives from those which guide persons of sound mind. Who shall say that a man, who is described by the Surgeon who has watched his case as "in a state of extreme mental and physical depression," is of sound mind, and ought to be held responsible for his irrational acts? Surely hanging such a miserable being cannot be supposed to be the duty of a Christian people; it is much more likely to excite sympathy for the culprit than indignation for the crime. I am, &c.

99, Harley-street, October 12. W. Wood.

THE FIELD DEFENCE FUND.

Letter from Mr. Field.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly allow me through the medium of your pages to offer my heartfelt thanks to those of my Professional brethren and friends, as well as to the editors of the Medical journals, for their generous help to me and their kind support and sympathy at a time when I most needed help and encouragement? Overwhelming as at one time the trouble seemed to me, I was sustained in the belief that all along I had with me the good wishes of my Professional brethren and the honest and powerful advocacy of the Medical press.

I am, &c. Octavius A. Field.

43, Sussex-gardens, October 16.

CELIBACY—RATHER MATRIMONY—OF FELLOWS OF COLLEGES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to say that, judged even by your somewhat Mormonic standard, they are not half such bad fellows at Cambridge as your article in this day's number would lead the world to suppose. In several of the Colleges there is no matrimonial restriction at all; the Fellows are at full liberty to marry, the Fellowships becoming vacant after a certain period; and they show no unwillingness to avail themselves of the privilege. Indeed, Cambridge can scarcely enlarge itself fast enough to accommodate these marrying, family-begetting, Fellows of Colleges, and meet the other increasing demands now made upon it in consequence of the general prosperity of the University. It is, moreover, a curious fact, for which you are evidently quite unprepared, that under the old *régime*, when all the Fellowships were vacated by marriage, Fellows of Colleges actually married, on the average, at an earlier period of life than other men in corresponding ranks. I do not wish to be understood as saying a word in favour of the restrictions of that period, but mention this merely to indicate that Fellows of Colleges, instead of being the hard, selfish, cælebic creatures you seem to fancy, show a somewhat greater tendency than other men to yield to soft sympathetic influences, and to put on the matrimonial yoke. You need only look in your own circle for illustration of this. Several of the leading Physicians in London and the provinces were bold and wise enough in early life to exchange the College for the matrimonial fellowship. I am, &c.

October 12. Cantab.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, October 15, 1867.

John Simon, Esq., President, in the Chair.

After a few remarks from the chair,

Mr. Bryant proceeded to exhibit and describe a

TUMOUR OF THE FEMUR

removed from a patient aged 34. There was a history of a blow about three years and a half ago, after which the part had become painful, and gradually enlarged For the last six months its increase had been more rapid, and when removed it weighed about 9 lbs. It consisted for the most part of bone, partly of fibro-cartilage. Dr. Moxon had examined it, and would speak to its microscopical structure.

Dr. Moxon said that in structure it more closely approximated osteo-chondroma than osteo-sarcoma, and that it presented the peculiar cells and capsules usually found in the deeper layers of the periosteum.

On the motion of the President, it was referred to the Cancer Committee.

Mr. Bruce exhibited a specimen of

BULLET WOUND OF THE LUNG AND THORACIC PARIETES.

This specimen was of some interest in connexion with the history of the patient, the unfortunate McDonnell, whose case has recently attracted so much public attention. The specimen illustrates some interesting points in connexion with the clinical history and treatment of such injuries. Mr. Bruce drew attention to the valvular character of the wound of the pleura, to which he attributed the absence of emphysema of the cellular tissue, which formed a marked feature of the case. The posterior wound was more ragged, but, in consequence of the rapid collection of fluid and the recumbent position of the patient, was less exposed to the

danger of extravasation of air. In its passage through the base of the lung a vessel of some magnitude had been divided, but the amount of hæmorrhage was not very considerable, and no hæmoptysis of any importance occurred, the sputa being barely tinged with blood. A very considerable amount of fluid —about 3 pints—had collected in the pleural cavity, the escape of which through the wounds was rendered impossible, partly in consequence of the valvular character of the orifice, and partly from the rapid deposit of inflammatory lymph on the surface of the pleura.

Mr. Spencer Watson exhibited a

WOMAN FROM WHOM A BLOOD CYST HAD BEEN REMOVED FROM THE LEFT SIDE OF THE THYROID BODY.

It was very large, and had been growing for twelve years. Latterly it had become troublesome, and the skin over it became tense, and there was slight sloughing at its apex. There was difficulty in swallowing, and sometimes in breathing. It was tapped, and a pint of fluid removed, when venous blood began to flow, and a good deal escaped. Blood and fluid passed from it for some weeks. A cicatrix ultimately formed; but the larynx and trachea remained permanently displaced. Another cyst formed lower down, which was not troublesome for a time, but had to be tapped in about a year after the former. The perchloride of iron was injected; but the clotted blood became troublesome, and a seton was introduced. Bloody serum still escaped from the wound. There was an enlarged gland at the angle of the jaw; but this most probably arose from irritation. She can now swallow easily. Several instances of similar disease were recorded, but none exactly like it. There was one specimen in the College of Surgeons.

Mr. Curling thought the case would probably get well of its own accord. A somewhat similar one had been under his charge at the London Hospital, although the tumour was scarcely so large. He tapped and injected iodine—the common tincture at first, afterwards a stronger solution. Much inflammation followed, and the cyst suppurated; but it ultimately contracted, and a cure followed. A series of somewhat similar cases had been given in the *Archives Générales* not long ago.

The President remarked that the presence of the blood was probably accidental. In one case which had been under his care the cyst extended as far as the first bone of the sternum. He tapped its different cysts successively, but did not inject. The cysts shrank and closed. Bloody fluid was found in some.

Mr. Bryant said that, in one case, he tapped a cyst the size of an orange, but it still seemed full and bled much. Ultimately it consolidated into a small hard nodule. In another case the cyst was the size of a cocoanut. When tapped, bloody fluid came out. It filled up, and was again tapped. The patient was sent home, when it shrivelled up. Four years after she was quite well.

Dr. John Harley exhibited, for Mr. T. Smith, a

BOY WHOSE CHEST WALLS WERE DEFICIENT,

the cartilages and ends of the ribs on the left side being wanting over a space of about three square inches. The pectoralis was small, the lung slightly emphysematous, and the movements of the heart could be seen through the covering of the chest.

Drs. Duffin and Kelly next showed an

OBSTRUCTED BOWEL,

on which colotomy had been performed. The patient, an old man, complained on September 3 that his bowels had not been well opened for a fortnight. His belly was enlarged, but there was no vomiting. No stricture could be felt in the rectum, and there was no indication of cancer. Mr. H. Smith was consulted, and an operation agreed upon, provided an enema introduced by a long tube did no good. That evening he got worse, and the operation was performed. Twelve hours after he was better, and there was no vomiting. For the next three days he did well, and on October 3 and 4 passed a small motion, but he soon got worse, and died eight days after the operation. On examination the bowel was found perfectly adherent to the wound. The sigmoid flexure of the colon was adherent to the bladder, and its interior presented a circular ulcer of considerable breadth, causing so much contraction that a catheter would barely pass.

Dr. Greenhow narrated a case of

ADDISON'S DISEASE,

which had been under his notice since 1865. The patient complained of much debility and vomiting, with loss of appetite and pain in the epigastrium. There was then slight discoloration of the face, arms, and hands, whilst over the epigastrium a spot, which had been blistered, presented a much deeper tint. On a post-mortem examination, it was found that the lungs were adherent, and that the supra-renal capsules were rather smaller than they usually are in this disease, but their centres were white, hard, and calcareous, with a fibroid deposit more externally.

Dr. Murchison narrated a case of the same disease, in which there was no discoloration of the skin whatever. The patient was very fair, and there was not even a trace round the nipples. Dr. Cayley, on a post-mortem examination, was able to make out a slight spot inside the mouth; yet the symptoms were the same as usual, and the supra-renal capsules were affected as they ordinarily are in this disease. There were old deposits of tubercle in various parts of the body, particularly the apices of the lungs. Death came on suddenly.

Dr. Bristowe, after mentioning that there was a well-marked case of Addison's disease now in St. Thomas's Hospital, proceeded to show an interesting specimen of a

CLOT SOFTENING IN THE HEART.

The patient was a woman aged 56, and had been some months in St. Thomas's Hospital. She suffered from albuminuria, etc.; but beyond its rapid action nothing abnormal could be discovered in the heart itself. Clots were predicted; and, after being in the Hospital three or four weeks, she became very bad, but recovered. Besides the clot in a softened condition found, there were other smaller ones, containing crystals of hæmatine. He presented another specimen of

WARTS ON THE CHORDÆ VOCALES.

The patient had no difficulty in breathing, but had a rough, yet squeaking voice. She died of heart disease.

Dr. Wilks exhibited some

CHYLOUS FLUID REMOVED BY TAPPING FROM THE ABDOMEN

of a patient in the Brighton Infirmary. Two gallons were removed, and a similar quantity had been removed four times previously. The fluid was not milk; its sp. gr. was 1010; it contained no sugar, and coagulated by heat. Such cases sometimes came forward, but the only one he had seen recorded was from Middlesex Hospital. They probably arose from obstruction of the lacteals by malignant disease or tubercle. Mr. Hilton had a man under his care with such a discharge from his leg, and Sir W. Fergusson had a patient whose scrotum contained a similar fluid.

Dr. Semple showed a specimen of

HYPERTROPHIED LIVER

removed from a German woman. When first seen her abdomen was swollen; she was jaundiced, and her urine was albuminous. After death the liver was found to occupy one-half the abdomen, and both spleen and kidneys were enlarged. There was no dropsy. The shape of the liver was normal, but its edges were rounded, and its colour yellow; it weighed 12 lb.; oil globules were found in its structure.

Dr. Murchison remarked that it was probably an unusually large fatty liver.

Dr. Whipham exhibited a

DISEASED KIDNEY COMPLETELY TURNED INTO FAT,

with the exception of a small portion near the pelvis. The man had dropsy, which yielded readily to diuretics, but was attacked with diarrhœa, and sank. Pus was found behind the right kidney, whilst the kidney was found in the state described, the fat extending along the ureter even to the bladder. The other kidney was intensely amyloid, yet the patient had passed plenty of urine.

The President remarked that there was a specimen in the museum of St. Thomas's Hospital of what was supposed to be a kidney turned into fat; this he had divided, and found, as in the case just described, a small portion of the substance of the kidney in the centre.

Dr. Wilson Fox then proceeded to describe a specimen of

EMBOLISM OF THE MIDDLE CEREBRAL ARTERY.

The patient had suffered from heart disease and dropsy, and had suffered from hemiplegia, but recovered. Still, the left arm was more dropsical than the right. The aortic valves were very much diseased, and in the fissure of Sylvius was found a large yellow spot, whilst in the corpus striatum were found small cysts of a yellow colour. The posterior branch of the artery was partially occluded, the fibrin having become canaliculated; the other was completely closed. The interest lay in the recovery from paralysis, there being so few anastomosing vessels in that situation.

Dr. Murchison said the case had been previously under his care, and that he had been able to diagnose the condition, the man being but 23, and having suffered from rheumatic fever. He had been suddenly seized with pain on the right side of his head, and had lost power of the left side, but had never been unconscious. His urine had not been albuminous, but he was suddenly attacked by pain in the kidneys; then followed a discharge of blood and blood casts, but there was no dropsy. He suspected embolism of the kidney, but the post-mortem did not corroborate his ideas.

Dr. Fox said the kidney was large and pale, with much fibrous induration.

Dr. Hilton Fagge showed specimens of

LARVAL ACARI SCABIEI,

having only six legs. These he had obtained by boiling the eczematous crusts found in the worst specimens of this disease in dilute caustic soda.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 25, 1867.

Mr. Solly, President, in the Chair.

Dr. Sibson communicated a paper, by Dr. John Cockle, entitled

CONTRIBUTIONS TO THE PATHOLOGY OF ANEURISMS AND TUMOURS INVOLVING THE UPPER PART OF THE CHEST AND ROOT OF THE NECK.

All pulsating tumours which involve the root of the neck to any extent, when first seen, are confessedly of difficult diagnosis. Such difficulty may occasionally concern the real nature of the tumour, but most frequently (an aneurismal character being assumed) it consists in isolating the vessel engaged. The general rules laid down for guidance in this latter particular are for the most part based upon the position of the tumour and the relative state of the circulation in the corresponding arteries of the arms and sides of the neck; the exceptions, however, to such rules are sufficiently frequent to lessen their value to a very considerable extent. It is not within the scope of this abstract to attempt more than briefly to illustrate some of these exceptions—first, from cases of aortic aneurism giving rise to secondary sacculations ascending the neck at the ordinary site of innominate or carotid aneurism, and causing modifications in the circulation and sensibility of the right upper extremity; and second, from those of simple dilatation of the aorta and innominate artery causing pulsating swellings in the neck. In the case of a man sent to the Hospital with (supposed) subclavian aneurism, pain and stiffness in the right shoulder and collar-bone preceded tumour, which first appeared above the right clavicle. There was an entire absence of pulsation in the right radial, ulnar, and brachial arteries, the carotid apparently beating above the sac; the left radial pulse ranged at 90. The case was one of aneurism of the ascending and transverse aorta. In an aortic aneurism with cervical sacculations in the site of innominate aneurism, there also existed pain in right shoulder and arm, weakened pulsation in the right radial artery, subsequently partial loss of sensation and motion, with marked wasting of the right upper extremity. Of two pulsating swellings at the episternal notch, the one bore a strong resemblance to aneurism of the innominate artery, but was probably dependent upon simple dilatation of the ascending aorta and angle of the arch, the innominate and carotid arteries being involved. The second case was also one of more extended simple dilatation of the ascending and transverse aorta combined with dilatation of the innominate trunk. A case of aortic aneurism, with secondary sacculation at the left sterno-clavicular junction, simulating at first sight aneurism of the left carotid artery, subsequently came to strongly resemble intra-thoracic tumour; but eventually the diagnosis was established of aneurism of the ascending and transverse aorta. In the instance of a large elastic swelling, involving the entire left side of the neck, and attended with obscure impulse, most violent cough and distressing orthopnœa, with weakened pulsation of left radial artery, the diagnosis was very doubtful. Prior to the appearance of the swelling there had been, for six months, pain below the left collar-bone. The points involved in diagnosis were the existence of some irregular form of aneurism which had either burst and given rise to suppuration around, or whether glandular inflammation with subsequent suppuration had primarily occurred. It is of aneurism of the terminal portion only of the innominate trunk that diagnosis is attainable. If the thoracic organs are perfectly healthy except in the immediate proximity of the sterno-clavicular articulation, and there has been an antecedent injury of the right shoulder or clavicle, then, if a pulsating tumour occupy the space between the heads of the sterno-cleido-mastoid muscle and the hollow of the episternal notch—if such tumour, in its ascent, displace the clavicle, give rise to severe pain in the right shoulder, arm, neck, and head—if the pulsations in the right radial or carotid artery are comparatively weakened, pressure on one or other diminishing the impulse in the sac—if a murmur of greater or less intensity be heard over the sterno-clavicular articulation and the sac, the murmur diminishing sensibly downwards, and passing into the arteries of the neck and axilla, if pervious, such murmur being absent in the arteries of the left side—an aneurism of the terminal portion of the innominate artery may be diagnosed with tolerable certainty. Certain cases of subperiosteal abscess are interesting as occurring over the sites of aneurism, and receiving, at the base, more or less impulse from the arteries.

A paper, by Dr. Hillier, was read on

POISONING BY PHOSPHORUS.

A girl, aged 4½ years, having been left in a room alone, sucked the composition from a number of lucifer matches. When the mother came home, she found the air of the room and the child's breath having a peculiar odour. A dose of jalap was given, which acted freely on the bowels. The next day the child was in much pain, very restless, and thirsty. On the third day vomiting set in, and continued for nearly forty-eight hours at short intervals. The next day jaundice was observed. On the fifth day convulsions set in, and on the following day the child died. Autopsy.: The intestines contained a dark treacly-looking fluid; the mucous membrane of the whole alimentary canal was paler than usual. The liver was excessively pale and fatty. The kidneys presented a similar condition. The brain was pale, with an excess of serum in the meshes of the pia mater.

A paper by Mr. Henry Lee and Dr. Lionel S. Beale, was read on

THE REPAIR OF ARTERIES AND VEINS AFTER INJURY.

Dr. Jones, John Hunter, and some other observers, considered that in the repair of arteries and veins after injury lymph was effused from the internal surface of the vessel. Many modern writers, among whom may be mentioned Sir James Simpson, have expressed themselves in favour of the same view. And although Virchow failed by direct experiment to excite the effusion of lymph by irritating the lining membrane of arteries, many Surgeons still express themselves as if adhesion of the internal surfaces, both of arteries and veins, resulted from the pouring out of coagulable lymph from the vascular walls, just as occurs when the two opposed surfaces of a serous membrane become united. The authors next proceed to show that this opinion, so long entertained and so widely taught, is not supported by facts. In the first place, they bring forward cases in which, after arteries and veins had been wounded in animals and man, no lymph was to be discovered adhering to the internal coats, but only coagula, evidently of fibrin or clots of blood. Secondly, they give the results of careful microscopical observations upon the fibrin-like material which occupied the opening in wounded arteries after injury, and show that this must have been deposited from the blood, and could not have been poured out from the arterial coats. They have been led to conclude that the material in question is formed by the white blood-corpuscles, and is closely allied to ordinary fibrin, and that the coats of the vessel are perfectly passive. They advert to the fact that all organisable and unorganisable exudations capable of solidifying, contain minute masses of germinal matter, which are probably derived from the blood and closely related to the white blood-corpuscles. The specimens submitted to microscopical examination were prepared according to the plan recently recommended by Dr. Beale. The paper is accompanied with several drawings, magnified from 30 to 700 diameters, showing the structure of the fibrin-like material and its exact relation to the arterial textures.

Mr. S. Solly communicated a paper by Mr. Lockhart Clarke and Dr. Hughlings Jackson on

A CASE OF MUSCULAR ATROPHY.

The patient was a female aged 38; her illness began with

severe pain in the right arm, neck, and shoulder. After some time the muscles of the arm, forearm, and hand, the sterno-mastoid, trapezius, and scapular muscles became much wasted. The patient at length lost all power of moving her right arm, or of elevating or turning her head. Her left arm was also wasted, but to a less extent. Her tongue followed the same course, was tremulous, and badly protruded. Her voice altered, her articulation became indistinct, and deglutition was with difficulty performed. Sensation generally was only slightly impaired, but she complained of great coldness in the arms and legs. The muscles of both legs, especially the right, were wasted to a considerable extent. On *post-mortem* examination, the pia mater of the brain was found to be much congested. The grey substance of the convolutions was dark, almost purple. The pons Varolii and medulla oblongata were small. In the latter the nerve-cells at the floor of the fourth ventricle were atrophied to a certain extent. In the spinal cord, opposite the second and third cervical nerves, the anterior cornua were wasted, and their nerve-cells shrunk to mere points. In the middle of the cervical enlargement, the right lateral column was softened, swollen, and crowded with compound granular corpuscles. The antero-lateral grey substance was also damaged by areas of disintegration, and the nerve-cells on both sides were wasted in the way already stated. Through the rest of the cervical enlargement the grey substance was considerably smaller on the right side, and in some sections the extremity of the posterior cornu was much reduced in size. At the lower third of the dorsal region the antero-lateral column of the left side was much softened, and the grey substance was much damaged. Still lower down, the deep portions of the posterior columns were softened, and the anterior grey substance was reduced in size. In different parts, the lumbar region was variously affected by morbid changes, but to a much less extent than the cervical region of the cord.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Monday, October 14, the following Member of the College was duly admitted a Fellow of the same :—

John Harley, M.D. Lond., 78, Upper Berkeley-street.

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College :—

Robert Anderson, St. George's Hospital; Honoré Bourguignon, M.D. Paris, 45, Great Marlborough-street; David Keagey, M.D. Victoria College, Canada; John Widmer Rolph, M.D. Victoria College, Canada; George Rootes, 46, Doddington-grove, Kensington; William James Tattersall, Bacup, Lancashire; John Greaves Wiseman, Ossett.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 17th inst. :—

James Taylor, of Wargrave, Henley-on-Thames, diploma of Membership dated May 8, 1840, and Stewart Blacker Roberts, M.D. Aberdeen, of Selhurst-park, South Norwood, November 26, 1841.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 10, 1867 :—

Robert Bryce Gilland, Brentwood; John Henry Houston, Ballinahatty, Amagh.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, C. L., L.R.C.P. Edin., has been appointed Resident Medical Officer to the Liverpool Workhouse Hospital.

ATKINS, T. D., L.R.C.P. Edin., has been appointed Resident Surgeon to the Birmingham Lying-in Hospital.

BOROUGH, E., L.R.C.P., M.R.C.S., has been elected Senior Assistant Medical Officer to the Leeds Public Dispensary.

DE LA GARDE, J. L., M.B., has been appointed Surgeon to the West of England Eye Infirmary, Exeter.

GRIESBACH, E., M.R.C.S., has been appointed Junior Assistant Resident Medical Officer to the Leeds Public Dispensary.

HOPKINS, H. C., M.R.C.S., has been elected House-Surgeon to the Royal Free Hospital, Gray's-inn-road.

LAWRENCE, H. CRIPPS, L.R.C.P. Lond., etc., has been appointed Registrar to Queen Charlotte's Lying-in Hospital.

OWEN, A. L., B.A., M.B., M.R.C.S., L.M., has been appointed House-Surgeon to the Royal Free Hospital, Gray's-inn-road.

WOODIFIELD, T. R. VARY, L.R.C.P. and L.R.C.S. (Edin.), has been appointed Assistant-Surgeon to the Sunderland General Infirmary and Dispensary.

BIRTHS.

BLACK.—On October 6, at Clifton, the wife of F. Black, M.D., of a son.

CREIGHTON.—On October 11, at Enniskillen, the wife of R. Creighton, R.N., Surgeon H.M.S. *Pallas*, of a son.

EDMONDS.—On October 9, at St. Augustine's-road, N.W., the wife of Dr. H. Edmonds, Staff-Surgeon R.N., of a son.

GODFREY.—On September 28, the wife of Frank Godfrey, L.R.C.P. Edin., Her Majesty's Convict Establishment Hospital, Gibraltar, of a son.

LEWIS.—On October 13, at Folkestone, the wife of H. Lewis, M.D., of a son.

NORTON.—On October 11, at Wateringbury, the wife of S. Norton, M.D., of a daughter.

PENNELL.—On October 7, at Cherith Lodge, Clifton-park, Bristol, the wife of C. Pennell, M.B., of a son.

SIMPSON.—On October 8, at 12, Canonbury-square, N., the wife of A. Simpson, M.D., of a son.

MARRIAGES.

DUNCAN—SERVANTE.—On August 8, at Fern-hill, Dashwood Gully, South Australia, H. Duncan, M.D., of Port Adelaide, to Emily Susan, eldest daughter of Commander F. Servante, R.N. No cards.

FENNINGS—NEVE.—On October 15, at the parish church, Walthamstow, A. Fennings, L.R.C.P., M.R.C.S., etc., of St. Ann's-road, Notting-hill, to Mary Rebecca, second daughter of the late Captain Neve, of Mulford, Suffolk.

HENSMAN—FISHER.—On October 8, at Milton, Northamptonshire, A. Hensman, M.R.C.S., of Chatteris, Cambridgeshire, to Elizabeth, daughter of N. Fisher, Esq., of Milton.

KNIPE—HAILES.—On October 8, at St. James's, Piccadilly, J. C. Knipe, Esq., Army Medical Staff, to Catherine, eldest daughter of the late Captain W. Hailes, 10th Bengal Cavalry.

RATTRAY—MACGREGOR.—On October 10, at St. Thomas's Episcopal Church, Edinburgh, A. M. T. Rattray, M.D., Portobello, Edinburgh, to Susan, only surviving daughter of the late Lieut.-Colonel MacGregor, 5th Fusiliers.

VAUGHAN—GRAVES.—On October 10, at St. Mary's Church, Torquay, E. Vaughan, M.D., of Chandos-house, Keynsham, Somerset, to Julia Deverell, eldest daughter of the late B. Bloxsome, Esq., of Dursley, Gloucestershire, and widow of the late Captain W. H. Graves, 18th Regiment.

DEATHS.

BOWER, W. E., M.D., at Luckee Serai, East Indian Railway, Bengal, on August 24.

BRADSHAW, G., M.R.C.S.E., of Thurles, Co. Tipperary, on August 14.

CLARKSON, E., M.D., H.E.I.C.S., at 20, Broughton-place, Edinburgh, on October 15, in his 72nd year.

CORNER, J., M.D., at Dungarvan, Ireland, on October 8.

HENDERSON, H., M.R.C.S., formerly of Upper Gloucester-place, Portman-square, at Hendon-park-villas, Hendon, on October 2.

LESLIE, W., M.R.C.S.E., of Golden-square, Aberdeen, on September 25, aged 70.

NEWTON, L., M.R.C.S.E., L.S.A., at Alconbury-hill, Hunts, on September 25, aged 50.

VALENTINE, R., M.R.C.S.E., at Ludlow, on August 31, aged 65.

VACANCIES.

WEST LONDON HOSPITAL.—Apothecary and Assistant-Secretary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Chertsey Union.—Dr. J. P. Hunt has resigned the Windlesham District; area 5870; population 2048; salary £49 per annum.

Huntingdon Union.—The Alconbury District is vacant; area 18,575; population 3540; salary £80 per annum. Also the Sawtrey District; area 16,723; population 2344; salary £70 per annum.

King's Lynn Union.—Mr. Henry Smythe has resigned the North District; population 6957; salary £60 per annum.

Lambeth Parish.—Dr. A. O. Grosvenor has resigned as Assistant Resident Medical Officer for the Workhouse; salary £80 per annum.

Nuneaton Union.—Mr. Edward Nason has resigned the Chilvers Coton District; area 13,199; population 5182; salary £65 per annum.

Ross Union.—Dr. Cocks has resigned the Sollershope District; area 13,690; population 3996; salary £56 14s. per annum.

Stow Union.—Mr. B. A. Harding has resigned the Fifth District; area 11,336; population 3493; salary £70 per annum.

APPOINTMENTS.

Cheltenham Union.—Henry E. Jessop, M.R.C.S.E., L.R.C.P. Edin., to the Workhouse.

Hursley Union.—Henry C. Selwood, M.D. St. And., M.R.C.S.E., L.S.A., to the Hursley District and the Workhouse.

Kendal Union.—Thomas Dobson, M.R.C.S.E., L.M., L.S.A., M.D., to the Bowness District.

Kettering Union.—John L. Price, M.R.C.S.E., L.S.A., to the Second Kettering District.

Newbury Union.—Thomas H. Hawkins, M.R.C.S.E., L.S.A., to the Second District.

Weardale Union.—Charles Arnison, L.S.A., L.R.C.P. Edin., M.R.C.S.E., to the Derwent District.

Wetherby Union.—Walter Haxworth, M.R.C.S.E., L.S.A., to the Second District.

Wrexham Union.—William Price, M.R.C.S.E., L.S.A., to the Fourth District.

Her Majesty the Queen has intimated to Lord Derby her wish that a pension should be conferred on the widow of Faraday.

In her recent accouchement, H.R.H. the Duchesse de Chartres was attended by Dr. Gueneau Mussy as Physician in Ordinary, and by Dr. Priestley as Physician-Accoucheur.

The session of the Cork Literary and Scientific Society was opened last week by a *conversazione*. The inaugural address was delivered by Dr. Shinkwin, President of the Society.

We understand that there is likely soon to be a vacancy in the Chair of Pathology in University College, owing to the advancement of Dr. Wilson Fox to the post of Clinical Professor. Of likely candidates, we have as yet only heard of Dr. Charlton Bastian, Pathologist at St. Mary's.

The late Dr. R. P. Smith.—It was stated at the inquest on the late Dr. Richard Pritchard Smith, whose death we recorded in our last number, that the deceased Physician had given unmistakable signs of unsoundness of mind during the two last years of his life. He entertained delusions about himself, and the question of restraint in his case had been entertained. Unfortunately, it was judged unnecessary by his Medical advisers. The post-mortem exhibited softening of the brain. The jury returned a verdict of "temporary insanity."

Registration of Students.—The annual registration of those gentlemen pursuing their Professional studies at our metropolitan Hospitals has just terminated, and, contrary to all expectation, instead of a large decrease, there appears a considerable increase over the corresponding period of last year, when the total number who had registered up to October 17 amounted to 1043, whereas, up to the same date in the present year, it has increased to 1125, including in both cases those gentlemen pursuing their studies for the licence in Dental Surgery of the Royal College of Surgeons. The following return of the gross number (with new entries indicated) of the students pursuing their studies at the metropolitan Schools will no doubt be read with great interest by the respective teachers, as well as by the public generally. It appears, then, that there were in

Date.	No. of Students.	First year's men, or new entries.
1850	1001	384
1851	1087	408
1852	1093	382
1853	1084	376
1854	1072	369
1855	1093	392
1856	1067	344
1857	1038	353
1858	1021	373
1859	954	327
1860	1228	483
1861	1116	344
1862	1045	302
1863 (a)	1020	354
1864	995	309
1865	1013	321
1866	1027	362
1867	1125	355

The Faculty of Physicians and Surgeons of Glasgow (Established by Royal Charter in 1599).—At a meeting of this corporation, held on the 7th inst., the following office-bearers were elected for the ensuing year, viz.:—*President:* John Gibson Fleming, M.D. *Visitor:* Andrew Anderson, M.D. *Treasurer:* John Coats, M.D. *Honorary Librarian:* George Rainy, M.D. *Vaccinator:* James Dunlop, M.D. *Councillors:* The President, *ex officio*; The Visitor, *ex officio*; William Weir, M.D.; James Watson, M.D.; Robert Scott Orr, M.D.; John Coats, M.D.; George Robertson, M.D. *Board of Examiners:* Andrew Anderson, M.D., Medicine and Materia Medica; J. B. Cowan, M.D., Medicine and Materia Medica; William Leishman, M.D., Midwifery and Medical Jurisprudence; R. D. Tannahill, M.D., Midwifery and Medical Jurisprudence; William Lyon, M.D., Surgery; James Morton, M.D., Surgery; Andrew Buchanan, M.D., Anatomy and Physiology; G. Buchanan, M.D., Anatomy and Physiology; Robert Perry, M.D., Chemistry; Andrew Fergus, M.D., Chemistry. *Clinical Examiners in Medicine:* The Physicians of the Royal Infirmary. *Clinical Examiners in Surgery:* The Surgeons of the Royal Infirmary. *Examiners in Arts:* John Coats, M.D.; James Steven, M.D. *Clerks:* Laurence Hill, LL.D., and William Henry Hill. *Librarian and Secretary:* Alexander Duncan, B.A. This, the incorporated licensing body, must not be confounded with a private society styling itself the "Glasgow Faculty of Medicine," a list of whose office-bearers we published last week.

(a) In this year the Grosvenor-place School was finally closed.

The Field Defence Fund.—A final meeting of the Sub-committee of the "Field Testimonial" was held at the residence of Dr. Langmore, Sussex-gardens, on the 8th instant, C. Aikin, Esq., in the chair, to present Mr. Field with the amount liberally subscribed by his friends and the Profession—viz., £301 8s. After an appropriate address from the Chairman, which was warmly responded to by Mr. Field it was proposed by Mr. Owen, and seconded by Mr. Gascoyen—"That the best thanks of the Committee be offered to Dr. Langmore for his liberality and unremitting kindness in undertaking the management of the Field Fund, the success of which must be mainly attributed to his exertions." On the motion of Dr. Sibson, seconded by Dr. Langmore, thanks were offered to the editors of the Medical journals for the aid they had rendered in the matter. The following is a complete list of subscriptions to the Field Testimonial Fund:—Subscriptions previously announced, £272; Dr. Sieveking, £1 1s.; Baker Brown, Esq., £2 2s.; Dr. Cock, £2 2s.; J. Purday, Esq., £10 10s.; R. Dunn, Esq., £1 1s.; H. Grieves, Esq., £5 5s.; R. W. Tamplin, Esq., £5 5s.; Dr. R. Gardiner Hill, £1 1s.; W. Potts, Esq., £1 1s. Total £301 8s.

Professor Tuson's Introductory Lecture at the Royal Veterinary College.—In the course of his very practical and interesting address, Professor Tuson says:—"In January, 1862, six horses belonging to a gentleman in the north of England died very suddenly. Three veterinary surgeons were consulted in the case, who were of opinion that the horses died from the effects of poison. Several chemists analysed the viscera of the horses, and the oats upon which they had fed, without, however, discovering any poisonous agent. Subsequently a detailed account of the cases, as well as some of the oats, were sent to Professor Varnell by Mr. Mitchell, of Leeds. The former gentleman fed a mare for four days on the suspected oats. At about the termination of this period she exhibited symptoms of paralysis and extreme insensibility, and ultimately died on the fifth day after partaking of the first feed of oats. The symptoms observed by Professor Varnell accorded with those observed by Mr. Mitchell in the six horses just referred to. There was consequently but little hesitation in drawing the conclusion that the oats were the cause of death in all the cases. Accordingly, the oats, among which chemical analysis had failed to detect poison, were subjected to microscopical examination, and the result of such investigation proved that many of the oats, instead of containing flour, were filled with and coated externally by a species of fungus called *aspergillus* and its sporules. A quantity of these spores were given to a rabbit, which died on the sixth day, after manifesting symptoms similar to those exhibited by the horses above referred to. Now, what are the inferences to be drawn from his case? 1. That oats, the staple food of the most highly prized of the veterinarian's patients, are liable to be contaminated by a fungus capable of causing disease and death. 2. That this case furnishes a strong argument in favour of veterinary Surgeons not confining their attention to the cure of disease, but also of acquiring that kind and amount of scientific education which will enable them to investigate its causes and methods of prevention. If the taste be excited, and the means given to acquire the power of conducting hygienic and other inquiries pertaining to Medicine, the owners of stock, as well as the public generally, will derive very considerable and numerous benefits, while the veterinary Surgeon who possesses and exercises these qualifications will raise his own position, and indirectly those who follow his own profession."

A new French periodical devoted to Medicine has been started by Marchal (de Calvi), lately editor of *La Réforme Médicale*. The editorship of this journal he gave up, as he says, because his responsibility was greater than his authority. The new journal is termed *La Tribune Médicale*, and seems to be almost entirely written by Marchal (de Calvi) himself. As our readers are probably aware, this gentleman has distinguished himself by his researches on diabetic inflammation and gangrene.

Blood Corpuscles in Chlorosis.—M. Duncan, of St. Petersburg, has just pointed out the remarkable fact that the blood discs of chlorotic persons yield up their colouring matter more easily than do those of healthy subjects.

Arterial Tumours.—M. Gosselin, who has succeeded Velpeau as Professor of Clinical Surgery at *La Charité*, has published a memoir on cirsoid arterial tumours. He especially dwells on those tumours produced by varicosities of the arteries, and which, he thinks, have too often been confounded with erectile tumours. His mode of treatment is not very novel; it consists in repeated injections of perchloride of iron.

Physiological Action of Prussic Acid.—M. Pozanuski, in a paper just published, thinks that hydrocyanic acid, or cyanhydric as it is now styled, is more of a stimulant than a sedative. He states that it excites the circulatory organs, and is especially serviceable in the algide stage of cholera. He thinks that as many as twelve drops per day of the pure acid may be administered with safety.

The London Waters.—Dr. Frankland's statement of the character of the several London waters during the month of September has given rise to some alarm on the part of one or two of our contemporaries. The fact that some of the waters receive a large quantity of filtered sewage is a startling one, taken by itself. Dr. Frankland's explanation of its innocuousness does not give equal comfort to the general public, though it is strictly accurate. The Doctor states that much of this organic impurity is rendered harmless by its oxidation into inorganic matters (as ammonia and carbonic acid). This is perfectly correct, but the public cannot understand it. To most readers the statement that poisonous organic matter may be oxidised conveys no satisfactory meaning. Perhaps, then, it would be as well in future to explain that oxidation of these organic matters involves their decomposition into other and harmless substances.

Calabar Bean.—From Old Calabar we learn that the river was healthy and trade good. A tragedy of a most frightful character was enacted there on September 12. It appears that a chief named Effium Adam died rather suddenly at this place, and as his friends surmised that he had been the victim of foul play, the late chief's wives, six in number, and the entire household were assembled and required to go through the most savage of ordeals, which was that each of them was compelled to swallow a large dose of the *Esera*, or Calabar bean (the poisonous properties of which are well-known), to test their innocence of being parties to the supposed murder. Eight of the unfortunate victims had succumbed to the effects of the dreadful poison when the *Athenian* left, and the others were not expected to survive.—*Standard*.

The Doctor made General.—During the Spanish War of Independence the yellow fever broke out in the headquarters at Mula. The General-in-Chief, Mahy, immediately sent for Dr. Hernandez Morejon, Physician-in-Chief of the Military Hospitals established at Oribuela, and represented to him the critical state of the army. "General," replied Morejon, "I only see one means of arresting this scourge; either become yourself, for one hour, Physician-in-Chief of the army, or permit me, for the same space of time, to fulfil the functions of commander-in-chief." "Here is my commander's bâton," replied the general. "You have only to give your orders." Morejon instantly had the town evacuated, encamped the troops in the open air in the midst of the fields, and the yellow fever rapidly disappeared.—*Gazette Médicale*, October 12.

A Hospital on a New Plan at Nashville.—The St. Vincent de Paul Society has established a first-class Hospital, bearing the name of the Society, and under the Medical control of the Faculty of Medicine of the University of Nashville. It is so arranged as to offer superior accommodation to persons who visit the city in quest of Surgical or Medical treatment, as well as for the unfortunate poor. Any Physician of the city is invited to take any patient he desires to the Hospital, and attend him there under the nursing of the Sisters of Charity, where he would be as free from the students and Physicians of the College as if at a private house.—*Boston Med. Journ.*, August 15.

Natal Leeches.—A local Practitioner states, in the *Natal Mercury*, that the leeches of the district leave little or no scar, and are therefore valuable when it is required to apply leeches to the face or neck. The Natal leeches are smaller than those used in English practice, and have not yet been exported. Whatever we may think as to their size, we find it rather difficult to conceive of a leech which is an effective blood-sucker and yet leaves no cicatrix to tell of his appetite.

NEW BOOKS, WITH SHORT CRITIQUES.

The Micro-Chemistry of Poisons. By Theo. G. Wormley, M.D., Professor of Chemistry and Toxicology in Starling Medical College, Columbus, Ohio. New York: Baillière. Pp. 668.

*** This work is more than it professes, for, beyond the micro-chemistry of poisons, it also treats of toxicology. In this department, however, it is deficient. The author also seems ignorant of what has been done by Drs. Helwig and Guy on the subject. Nevertheless, the work is one of no common merit, and the illustrations (seventy-eight in number), executed on steel by Mrs. Wormley, are most beautiful. They constitute the great value of the book.

A Treatise on Human Physiology. By John C. Dalton, M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York. Fourth edition, revised and enlarged. Philadelphia: Lea. Pp. 695.

*** One of the few American works it would be worth while to pirate, for it is a capital text-book in every way. We are therefore glad to see it in its fourth edition. It has already been examined at full length in these columns, so that we need not now further advert to it beyond remarking that both revision and enlargement have been most judicious.

The Diseases of the Ear. By the late Joseph Toynbee, F.R.S., etc., with a Supplement by James Hinton, M.R.C.S., Aural Surgeon to Guy's Hospital. London: H. K. Lewis. Pp. 466.

*** The work of the late Mr. Toynbee is here republished as it last appeared, the supplement by Mr. Hinton referring to the changes which have taken place since its appearance. Of Mr. Toynbee's work we need not speak; save by Kramer, it is recognised as the first in any language, and Mr. Hinton's supplement does not derogate from the character of the book. It is arranged in the same order as the work itself, and might have been embodied in it in the shape of notes.

Lectures on Hysteria. By F. C. Skey, F.R.S., etc., etc. Second Edition. London: Longmans. Pp. 112.

*** We need not here do more than mention that the second edition of this work has just appeared. Every one knows by this time that its keynote is stimulation.

Army Medical Department. Statistical Sanitary and Medical Reports. Vol. VII., for 1865. London: Harrison. Pp. 627.

*** Full of interesting matter, and especially showing the valuable working of the Netley School.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

J. H. S., Exeter.—The registration closed on the 15th inst.; but under the circumstances stated, the President will no doubt allow you to register if you make personal application at once.

Dr. McG., Plymouth.—Tobias Smollett was a Naval Surgeon, a Physician, a novel writer, and founder of the *Critical Review*. We have not a Navy List to refer to. The Calendar does not publish the list of "Blane medalists."

Mr. J. Underwood, Liverpool.—The first "*Master*" of the College was Mr. Charles Hawkins, in 1800; the last, Mr. Thompson Forster, in 1820. The first "*President*" of the College was Sir Everard Home, Bart., in 1821; he had previously filled the Master's chair.

Dr. M.—Drs. Sims and Lettsom were the founders of the Society, which then held its meetings in Bolt-court, Fleet-street. The former was an Irishman, son of a dissenting minister; the latter a "Friend," and a West Indian.

Why the Navy cannot get Surgeons.

To the Editor of the Medical Times and Gazette.

Sir,—Your correspondent, "A Staff-Surgeon R.N.," writing, under the above heading, in the last impression of your paper, ascribes the present depreciated condition of the Naval Medical service to a maladministration, and very reasonably asks that no officer under the rank of Staff-Surgeon be appointed to the forthcoming vacancies in the flagships at Devonport and Portsmouth. I quite concur with your correspondent in the opinion that an administration of the Medical Department of the Navy, having more regard than heretofore to seniority and service claims, would go far to remedy the present distressing state of things, and procure a better supply of candidates. And, as one of the class whose claims are likely to be slighted in the appointments referred to, I am likewise of opinion that no officer under the rank of Staff-Surgeon should be allowed to hold the Surgeoncy of a flagship at home or abroad. Surgeons are naturally desirous of appointments to flagships because the service influence in such positions is pretty certain ultimately to lead to promotion to inspectorial rank. To such influence may be traced the promotion of nearly every officer of inspectorial rank at present on the Active List; and a good directorship should not allow junior officers to obtain an influence of this kind, to the prejudice of senior and equally good, if not better, men. There is now a large list of Staff-Surgeons, and there can be no difficulty in selecting officers of the class for appointment to flagships.

Soliciting your influence in the cause of justice, and that this letter may be permitted to appear in the next issue of the *Medical Times and Gazette*,

I am, &c.

Another Staff-Surgeon R.N.

A French Guide Book on Medical Fees.

To the Editor of the Medical Times and Gazette.

Sir,—Allow me to bring under your notice an anonymous guide-book, a second edition of which has just been published, entitled "Dieppe: the Route by Newhaven." This book undertakes to give advice to English travellers on all requisite subjects, and it is with regard to the information it contains upon Medical matters that I beg specially to trouble you with a few observations. English travellers are told that "Physicians' fees vary from three to five francs; the fee allowed by law is two francs a visit;

within the town." Remark how considerately the author puts in two ranes "within the town," probably thinking the latter sum insufficient for a visit twenty miles off in the country. Now, what English travellers or sojourners on the Continent want and look for particularly is a respectable English Practitioner, who can communicate with them in their own language, and who is acquainted with their habits, constitution, and system of medication; but, with such remuneration as already mentioned, it would not be worth the while of any British Medical man, with a shadow of reputation, to practise in this country, where all the necessaries of life have about doubled in price within a few years. And if you add to this the ingratitude, selfishness, intrigues, and dishonesty occasionally met with, it is evident that the editor of this Guide would make out a most unenviable position for the Faculty in Dieppe. However, I know from experience, and can positively affirm, that the statement in this book is false, and that its compiler could not have taken the slightest pains to enlighten himself properly upon the subject. I never knew before, or heard, of a fee of two francs allowed by law to Physicians, and if such a law ever existed, it is at present never acted upon; in fact, it is as obsolete as the statute of villenage in England. There is no recognised tariff, and members of the Profession are not permitted collectively to make one, as it would come under the application of the law affecting combination in trades. The relations between Doctors and patients are considered as best arranged between themselves, according to the nature of the case and circumstances as to fortune, etc. Yet here we find some busybody, under pretence of catering for the British travelling public, obtrusively and flippantly fabricating a scale of Medical fees, the absurdity of which, since the appearance of this book, it has been frequently found necessary to point out to parties glad of an excuse to act shabbily. The author, in a list of names which he recommends, suppresses that of the only British Practitioner here in active practice, although contained in the first edition. We are to suppose in the interest of English travellers.

With many apologies for trespassing so far on your valuable space.

I am, &c.

Dieppe, October 1. VERITAS.

ACETIC ACID IN CANCER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have not time to read the British Medical journals as they come outevery week, but have just read Braithwaite's "Medical Retrospect," which comes out here every six months. In the last two numbers I find articles by Dr. Broadbent on the treatment of cancer by the injection of acetic acid, taken from the *Medical Times and Gazette* of October 27, 1866, p. 445, and September 1, 1866. From the wording of the articles in question, the reader would infer that this method of treatment was something new. I do not know whether Dr. Broadbent is aware that Galen (1700 years ago), in the fourth chapter of his second book, speaks of vinegar as a curative agent in cancer. He also employed the fumes of vinegar for that purpose. He did use the vinegar at the commencement of the disease, giving as his reason "that it consumes the softer and hardens the coarser portions" of the tumour.

I also find this passage from Galen quoted in the old work on Surgery (which is in my library) of Fabricius Aqua-Pendente, of Padua, written more than two hundred years ago.

I have employed vinegar (diluted when necessary) in cancer, merely as a palliative treatment, for some time past before the articles in question came out. In cancer it seems to have the effect of keeping the disease stationary only, not curing it; in the case of ordinary wounds, vinegar answers better than anything else, as it prevents an excessive formation of pus.

I am, &c.

New York, September 17. C. E. NELSON.

COMMUNICATIONS have been received from—

Dr. WOOD; Dr. BEDDOE; Dr. WOODIFIELD; Dr. OURE; Mr. G. REID; Mr. HEATON; Mr. POOLE; Dr. HASTINGS; Mr. PLANT; Mr. STOKES; CANTAB.; Dr. LAYCOCK; Mr. PARKER; Mr. TALLACK; Dr. BALL; Dr. FOTHERBY; Mr. JEAFFRESON; ANOTHER STAFF-SURGEON R.N.; Mr. H. C. LAURENCE; Dr. GREEN; Mr. FIELD; Dr. A. L. OWES; Dr. C. L. ANDERSON; Mr. J. D. FETCH; Dr. WHITMORE; Dr. MACCORMAC; Dr. CARTER; Dr. HUGHLINGS JACKSON; Mr. J. CHATTO; Mr. J. D. HILL; Dr. WARING-CURRAN; Mr. COUPER; Dr. BARNES; Mr. D. DAVIES.

BOOKS RECEIVED—

Martin's Life of Faraday—St. George's Hospital Reports, Vol. II.—Patterson on Egypt and the Nile—Pirrie on Hay Asthma—Ramsbotham's Obstetric Medicine, fifth edition—Hewitt on Nutrition—St. Bartholomew's Hospital Reports, Vol. III.—Hill on Budaging—Baker's Introductory Address—Ophthalmic Review, No. 12.

NEWSPAPERS RECEIVED—

Huntingdonshire News—Jamaica Gleaner—Pall Mall Gazette—West Surrey Times—Cork Examiner—Harrogate Advertiser—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 12, 1867.

BIRTHS.

Births of Boys, 1023; Girls, 1005; Total, 2028.
Average of 10 corresponding weeks, 1857-66, 1831·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	639	594	1233
Average of the ten years 1857-66	558·5	563·8	1152·8
Average corrected to increased population..	..	..	1267
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,888	3	2	4	2	9	7	3	1
North ..	618,210	1	6	10	2	6	10	5	..
Central	378,058	3	2	8	2	7	5	5	..
East ..	571,158	4	4	6	1	3	7	17	2
South ..	773,175	2	4	10	..	6	7	29	1
Total ..	2,803,980	13	18	38	7	31	36	59	4

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·678 in.
Mean temperature	43·7
Highest point of thermometer	58·4
Lowest point of thermometer	31·2
Mean dew-point temperature	41·2
General direction of wind	Variable.
Whole amount of rain in the week	0·72

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 12, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Oct. 12.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Oct. 12.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2028	1421	1233	58·4	31·2	43·7	0·72	73
Bristol (City) .	165572	35·3	111	74	161	57·7	34·8	48·0	0·95	96
Birmingham (Boro')	343948	43·9	229	167	184	54·0	37·5	45·6	1·50	152
Liverpool (Borough)	492439	96·4	304	285	292	57·8	38·8	47·2	1·34	135
Manchester (City) .	362823	80·9	227	205	†236	56·0	31·5	43·7	1·43	144
Salford (Borough) .	115613	22·2	80	58	63	54·5	32·1	44·4	1·31	132
Sheffield (Borough).	225199	9·9	152	119	104	56·0	34·2	44·1	1·19	120
Leeds (Borough) .	282428	10·8	145	118	107	56·5	31·5	44·0	0·37	37
Hull (Borough) .	106740	30·0	78	49	71	54·0	29·0	43·2	0·44	44
Newstl-on-Tyne, do.	124960	23·4	82	66	79	..	..	..	..	..
Edinburgh (City) .	176081	39·8	141	85	76	53·7	36·0	45·3	0·00	0
Glasgow (City) .	440079	87·1	337	257	202	58·6	30·9	44·9	0·36	36
Dublin (City and suburbs) .	319210	32·8	121	‡157	139	56·8	43·3	50·9	1·09	110
Total of 13 large Towns .	6187764	34·8	4035	3061	2849	58·7	29·0	45·5	0·89	90
					Week ending Oct. 5.	Week ending Oct. 5.				
Vienna (City) .	(1863) 560000	..	..	..	§ 244	..	..	52·0	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·678 in. The barometrical reading increased from 29·40 in. on Tuesday, October 8, to 30·08 in. on Friday, October 11.

The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 48·2°.

APPOINTMENTS FOR THE WEEK.

October 19. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

21. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Henry Smith, "On the Results of Excision of the Knee-joint at King's College Hospital during the Past Year."

22. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. Beigel, "Remarks on Inhalation, with Demonstration of a New Apparatus for the Application of Chloride and Bromide of Ammonia in the Nascent State." Mr. Bryant, "On a Case of Vesico-Intestinal Fistula, for which Colotomy was performed."

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

25. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture IV.—Part II.

THE LONG FORCEPS (*continued*)—APPLICATION IN FRONTO-ANTERIOR POSITIONS OF THE HEAD—THE MECHANISM BY WHICH FRONTO-ANTERIOR, FOREHEAD, AND FACE POSITIONS GENERALLY, ARE PRODUCED—THE MANAGEMENT OF THESE CASES.

Such, then, is the story of the long forceps applied to the head in the first position at the brim. If the head be in the second position, the blades will seize it—one on the left brow, the other on the right occiput. The occiput will emerge under the right pubic ramus. Here special care is necessary. When the head emerges occiput to the right, if the shoulders are so large as to demand extraction in aid of expulsion, be very careful to direct the face downwards—*i.e.*, to the mother's left thigh—for if through inadvertence you turn the face upwards to the right thigh, you may give a fatal twist to the child's neck, or impede the turn of the shoulders into the antero-posterior diameter of the outlet.

In the case of the third and fourth positions of Naegele, the head will still be seized obliquely; and as it enters the pelvic cavity, it will generally make a quarter axial rotation, face backwards, so as to bring the occiput under a pubic ramus. In the case of fronto-pubic position, the head will be grasped more nearly in its transverse diameter. As it descends into the pelvis this position may be preserved; and it becomes a question whether delivery should be completed with the forehead forwards, or an attempt made to turn it back into the hollow of the sacrum.

The cause of arrest of labour, of difficulty, when the position is occipito-posterior, is, I believe, this—The head imprisoned in the pelvis is not able to take its normal extension movement. In occipito-anterior positions, the propelling force propagated through the spinal column causes the head to roll up from the floor of the pelvis out by the open space under the pubic arch. But in occipito-posterior positions the propelling force acts against the escape of the head by driving it against the floor of the pelvis, the occiput naturally rolling back into the hollow under the promontory. If extension-movement then takes place, this, by throwing the occiput against the back, rather increases the difficulty. Release can only be obtained by a movement of flexion. Now, flexion may be useful under two circumstances—first, as already explained, by supplying the essential condition for the spontaneous turn of the face into the sacrum; secondly, by taking the symphysis as the centre of rotation, and the point against which the root of the nose or the forehead is fixed, whilst the vault of the cranium is made to roll over the floor of the pelvis and through the outlet.

The first question that arises in the presence of an occipito-posterior position is, whether we can hope for the change, spontaneously or by art, to an occipito-anterior position.

Dr. R. U. West (a) has proved the practicability of procuring the rotation face backwards by artificial means. He applied his fingers to the frontal bones, turning this part backwards, and at the same time raising it up until he felt the posterior fontanelle come down. In another case he brought the occiput down by the lever. As soon as the occiput came down, the rotation seems to have been effected by Nature. This, indeed, is the essential thing to do—to get the occiput down, to restore flexion.

On the other hand, I am persuaded that the head often turns of its own accord when we think we are helping it. The evidence of Dr. Millar is quite to the purpose. "I met," he says, "a good many cases of occipito-posterior positions in which anterior rotation was effected; but the efficiency, I believed, belonged to me, and not to Nature, because I laboured assiduously to promote it after the manner recommended by Baudelocque and Dewees. . . . I have since experimentally allowed Nature to take her course in a considerable number of such cases, and *I find that the desired mutation is generally accomplished about as well without as with my assistance.*"

Dr. Leishman, whose excellent book (b) is full of instruction, says:—"My impression is that rotation can only be effected by artificial means when the head is free above the brim, or when it has quite descended to the floor of the pelvis." If the forehead has come down, Dr. Leishman says:—"No mere rotation can bring about the desired change. Rotation must be so managed that it is combined with a *descent of the occiput* and a corresponding retreat of the forehead."

I have found that the occiput must be brought down below the edge of the sacro-sciatic ligament in order to permit of the rotation face backwards.

It is judicious, I think, to make a reasonable attempt, after the methods of Dr. R. U. West, to bring the occiput down and forwards. This is entirely an affair of leverage. You may act upon either end of the lever represented by the long diameter of the head; or, better still, upon both ends simultaneously. You may apply the blade of the lever as nearly as possible over the occiput, on that side which is most remote from the pubes; draw downwards and forwards at the same time that, with the point of the finger resting on the frontal bone, you press the forehead upwards and backwards. By this manœuvre, under favourable circumstances, the desired change to an occipito-anterior position may be effected.

The leverage may be applied by the forceps. In this case the "single-curved" forceps will occasionally answer better than the double-curved. The head being grasped in its transverse diameter, or with only moderate obliquity, a movement of rotation of the instrument on its axis will turn the face backwards into the sacrum. But the forceps cannot at the same time so well bring down the occiput as the lever combined with the fingers can do.

But I cannot give more than a qualified assent to the propriety of attempting to rectify the position. It is only exceptionally useful; still more rarely is it necessary; and it is not free from danger. The head can be born very well preserving the occipito-posterior position throughout. Indeed, I think this occurs more frequently than Naegele represents. Nor does the case call for any amount of force. By aid of the forceps the delivery is nearly as easy as when this instrument is applied to an occipito-anterior position. In the event of delay, I therefore advise resort to the long forceps.

The blades should be applied in the sides of the pelvis; they will be guided by the head into the most suitable position. *Extraction*, then, *simply*, without troubling yourselves about rotation, is all that is necessary. If Nature prefer or insist upon rotation, your business is to consent. As the head advances, the occiput may come forwards, and you will feel the handles of the forceps turn upon their axis. But in a large proportion of cases Nature will not insist upon bringing the occiput forwards; and here again your part is simply that of a minister of Nature. The forehead will emerge under the pubes; the cranium will sweep the sacrum and perinæum.

As the blades of the forceps preserve their original position, the handles will turn with the head. It is labour lost—it is encumbering Nature with superfluous help—it is a sin against that most excellent maxim, "*ne quid nimis*," to attempt to promote this turn by twisting with the forceps.

In this latter case there are two things to be observed—first, the perinæum is put more upon the stretch, and therefore requires more care; second, if the handles of the forceps are carried forwards towards the mother's abdomen too soon, the blades will be apt to slip off. The superiority of the long forceps in saving the perinæum is very marked.

The propriety of not attempting to turn the face backwards is even more decided in those more marked cases of fronto-anterior positions in which *the forehead looks nearly directly forwards*. It appears to me that this position is due to unusual flatness of the promontory—a very slight projection of this part. A pronounced projection of the promontory will scarcely permit the head to occupy the antero-posterior diameter; it will throw the occiput to one or the other iliac hollow, so that the moment the head dips into the pelvis the anterior pole is turned into the hollow of the sacrum or to one side of it.

Upon this point I am glad to quote the authority of Dr. Ramsbotham, whose experience is unsurpassed:—"I prefer extracting it, if possible, with the face under the arch of the

(a) *Glasgow Med. Journal*, 1856.

(b) "The Mechanism of Parturition." 1864.

pubes, because, as the rotation is made over only one quarter of the half-pelvis, there is less chance of injuring the soft parts. Besides, should the child's body be strongly embraced by the uterine parietes while we are acting, and should it not follow the turn which we are forcing the head to take, we should twist the child's neck, perhaps fatally."(c) In truth, there is no very serious difficulty in extracting with the face forwards.(d)

Fig. 24.

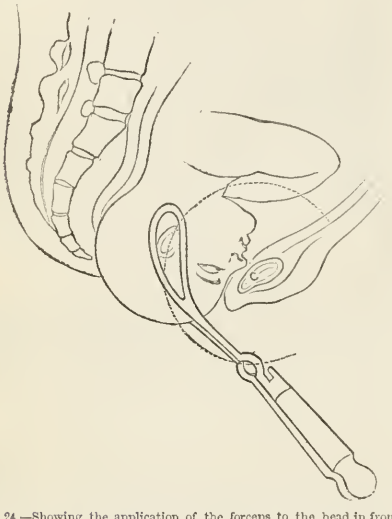


Fig. 24.—Showing the application of the forceps to the head in fronto-anterior position. The promontory of sacrum shows very little projection. The head is seized nearly in its transverse diameter. The symphysis, c, is the centre of rotation. The vertex and occiput sweep the perinæum, producing a movement of flexion.

The case is, however, more severe if it is a complete *face-presentation*. You can hardly by aid of the forceps so far modify the position of the head as to render its course through the pelvis easy; and when you have succeeded in dragging it into the cavity, you may find yourselves left with no alternative but to perforate. It is very true that a large proportion of face-labours end happily without assistance. It is equally true that face-presentations supply some of the most difficult cases in practice.

It is convenient in this place to examine how brow-presentations and face-presentations are produced. These may be regarded as transitional between vertex and face-presentations; and by analysing the mode in which brow- and face-presentations arise, we shall have the best indications for prevention and treatment. Consider the head as a lever of the third order, the power acting about the middle. The fronto-occipital diameter or axis represents the lever; the atlanto-occipital articulation is the seat of the power. Riding upon this point, the head moves in seesaw backwards and forwards. A force which is generally unnoticed in obstetrics is *friction;* and if friction were uniform at all points of the circumference of the head, it would be unimportant, from a purely dynamic point of view, to regard it. But it is not always so. Friction at one point of the head may be so much greater than elsewhere, that the head at the point of greatest resistance is retarded, whilst at the opposite point the head will advance to a greater extent; or resistance at one point may quite arrest the head at that point. In either case the head must change its position in relation to the pelvis.

Let us, then, take the case where excess of friction bears upon the occiput directed to the left foramen ovale. This point will be more or less fixed, whilst the opposite point or forehead, receiving the full impact of the force propagated through the spine to the atlanto-occipital hinge, will descend —that is, the forehead will take the place of the vertex, and be the presenting part. If this process be continued, the head rotating back more and more upon its transverse axis, the face succeeds to the forehead.

Now, if we can transpose the greatest friction or resistance to the forehead, and still maintain the propelling force, it is clear that the occiput must descend, and that the normal condition may be restored. In practice this is actually done. When at an early stage of labour we find the forehead presenting, we can, by applying the tips of two fingers to the forehead, during a pain, retard its descent, and the occiput comes down. This effected, the rest will probably go on naturally, because, the atlanto-occipital joint being somewhat nearer the occipital than the frontal end of the lever, the shorter or occipital arm of the lever will keep lowest. But if there should still be excess of resistance at the occipital end, we have only to add so much resistance to the frontal end as will maintain the lever in equilibrium. This manœuvre is illustrated in the following diagrams.

Fig. 25.

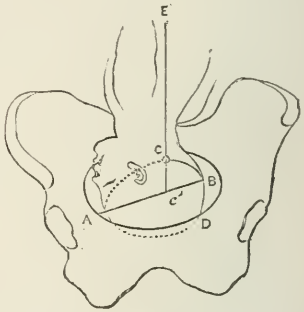
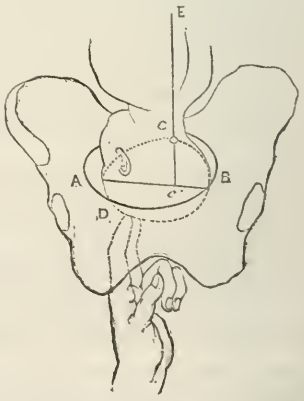


Fig. 25 represents a change in progress from an original vertex presentation to a forehead. C is the atlanto-occipital joint, or point where the force propagated through the spine E C impinges upon the lever A B C. D is the point of greatest resistance. Therefore the arm A of the lever descends. C' E, the force, forms an obtuse angle with the arm A.

Fig. 26.



In Fig. 26 the fingers applied to the forehead at D transpose the greatest resistance to this point. The force propagated from E to C will therefore drive down B, the occipital or shorter arm. The force E C C' will form an acute angle with the long arm A, and the tendency will thus be greater to keep the occipital arm B lowest in the pelvis. Or we may help to overcome the resistance at the occipital end of the lever by applying the palm of the right hand externally and pressing the occiput downwards.

(c) *Medical Times and Gazette*, 1862.

(d) The Practitioner or student who wishes to gather instruction from Dr. Ramsbotham is advised to study his clinical reports published in this journal (1862). These give the matured conclusions of this eminent teacher, and show that *his practice*, elaborated out of, and gradually formed in, his encounters with difficult cases, was even superior to the formal and more conventional *doctrines* in his systematic work.

The face may enter the pelvis, take its turn forwards, and then be arrested, just as the head in cranial presentation may be arrested. In such a case the forceps may be useful. The application is as follows. Assume that it is the first face-position; remember that the object to be accomplished is to make the vault of the cranium and the occiput roll over the floor of the pelvis around the symphysis as a centre, so as to restore flexion. The blades should seize the head nearly in its transverse diameter. Now, the face presents some degree of obliquity in relation to the pelvis. The first or sacral blade, therefore, must pass up the left side of the pelvis somewhere between the sacro-iliac joint and the left extremity of the transverse diameter. The second or pubic blade will pass in the opposite point of the pelvis—that is, between the foramen ovale and the right extremity of the transverse diameter. When locked, traction is at first directed downwards, to get the chin fairly under the pubic arch. Then the traction is directed gradually more and more forwards and upwards, so as to bring the vault of the cranium out of the pelvis. The posterior part of the head puts the perinæum greatly on the stretch. It requires great care to extract. Give time for the perinæum to dilate. Carry the forceps well forwards, so that the shanks are out of the way; but not too soon, lest the blades slip off. Extract gently.

FIG. 27.

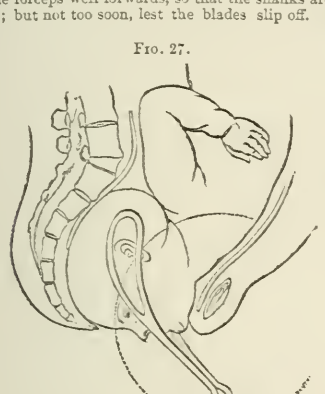


FIG. 27 shows the long forceps applied to the head in face-presentation delayed in the pelvis. The curve of Carus—the dotted circle—indicates the direction of traction.

But we shall not always be so fortunate even as this. Several of the most difficult cases in which my assistance has been sought have been face-presentations. In some the face will not enter the brim. This is the first order. What shall we do here? If we apply the forceps, one blade is likely to seize beyond the jaw and compress the neck, bruising the trachea. If the attempt be made to seize the head by applying the blades in the oblique diameter, they must be passed very high, and even then may slip. If firmly grasped and traction be made, the faulty extension of the head is increased; the compression of the vessels of the neck and the danger of apoplexy are augmented; and, after all, extraction may have to be completed by perforation. Turning can be effected with infinitely less trouble, and with a better prospect for the child. In the second order of cases, the *face has descended into the cavity*. The birth of a full-grown living or recently dead child, with the forehead maintaining its direction forwards, is almost impossible. The extension of the neck is extreme, the head being doubled back upon the nucha. The face represents the apex of a wedge, the base of which is formed by the forehead, the entire length of the head, and the thickness of the neck and chest. This must be equal to at least seven inches. The bregma and occiput become flattened in, it is true, but much is not to be expected from moulding. Compression, bearing upon the neck, if great and long-continued, is almost necessarily fatal to the child. Hence arrest or impaction. The turn of the chin forwards under the pubic arch, so as to release the head by permitting flexion round the symphysis, cannot take place. Aid becomes necessary. We have to consider the following points:—

1. Can the head be rotated on its transverse axis, restoring flexion, and so bring the cranium down? This may be accomplished whilst the head is above the brim, but scarcely when it is squeezed into the cavity.

2. Can the turn of the chin forwards be effected by the hand, the lever, or the forceps? This is sometimes possible, and should be tried. It is thus described by Smellie:—"After applying the short or long curved forceps along the ears, push the head as high up in the pelvis as is possible, after which the chin is to be turned from the os sacrum to either os ischium, and afterwards brought down to the inferior part of the last-mentioned bone. This done, the operator must pull the forceps with one hand, whilst two fingers of the other are fixed on the lower part of the chin or under jaw to keep the face in the middle and prevent the chin from being detained at the os ischium as it comes along, and in this manner move the chin round with the forceps and the above fingers till brought under the pubes, which done the head will easily be extracted."

3. Can the head be brought down by the forceps without turning the chin forwards? This is a practice against Nature. If the forceps grasp—and it will generally slip—it will bring more of the base of the wedge into the brim. The head must be small, or the pelvis large, to admit of success by this mode.

4. Shall we extricate the head by perforating? The wedge may be lessened, but even after this, delivery is not always easy unless part of the cranial vault be removed, so as to allow of the flattening in of the head.

5. Can we turn simply? It is the best course, but if the head is low it may be difficult to accomplish.

6. The chin will sometimes turn forwards at the very last moment, when the face is quite on the floor of the pelvis. If not, it may be possible to hitch the chin over the perinæum by drawing the chin forwards by forceps, and pulling the perinæum backwards. The chin thus outside, the forceps or lever may be applied to draw the occiput down under the pubes and backwards, so as to make the head revolve on its transverse axis, thus restoring flexion. You are in fact decomposing the base of the wedge. You deliver by a process the reverse of that of ordinary occipito-anterior labour. In this, the occiput escapes by a process of extension. In the mento-sacral position you deliver by promoting flexion. Or, to take our illustration from the mechanism of face-labour, you obtain flexion by causing the chin to turn over the coccyx or sacro-sciatic ligament as a centre, instead of over the symphysis. The latter is the natural mode, but it may be that the first alone is possible. This is a case in which incision, bilateral, of the perinæum—here acting as an obstructing posterior valve—may be performed in order to facilitate the release of the chin.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. V.

THE piercing scream we heard came from the boy whose portrait is given in Paper No. II., whilst the nurse was raising his head to feed him with some beef-tea.

The occasion was improved upon by our friend the Professor, who, addressing himself to his little band of students, observed: "You will find some special signals or sentinels, as we may style them, which the enemy sets up when mortal disease within the skull is battling with curative health, and engaged in sapping the foundation of organs, and altering tissues essential to life. The various forms of delirium are often so characteristic of the disorder of which it is a symptom, that the study of each will well repay us. In fever, we observe it of a confused, fuddled nature, even whilst the patient is awake. It is wild and frantic in meningeal inflammation, contrasted with the busy, loquacious hallucinations of delirium tremens. Then the coma, or insensible mutterings of cerebral lesions, or uræmia, may be contrasted with the piercing cry uttered by

patients suffering from disease near the 'dentatum ligament;' and lastly we have the capricious, violent incoherencies of a girl flushed with hysteria. You have heard it stated in the accident ward that the incessant yawning, ammoniacal sweat, and cuddling the head under the bedclothes with the knees drawn up, are fatal harbingers in surgical lesions of the skull."

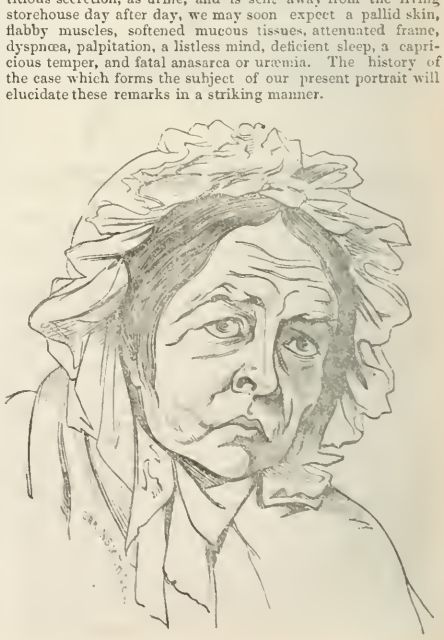
In mature age, every passion of the human frame runs throughout the lips and mouth to tell its tale. We may call the mouth eloquent in its silence, and speaking though it be shut. Like the bursting bud, it parts for a smile; it expands for laughter; contracts in rage; curls with disdain; and opens for fright. In its every movement it works with the nostril. Here is union, sympathy, and help. Both assist in producing lineage, and both stamp a joint meaning and cause. In all the depressing influences which act upon the mind, the mouth is, paradoxically, trumpet-tongued in its mute expression. Here, then, is another region, full of interest, grandeur, variety, and use to him who studies the beauty, the deformities, the virtues or the vices, the health or the diseases of his fellow-man.

We have surveyed the ground over which the author of "The Anatomy of Expression" was led step by step in elucidating the fact that the portio dura is single in its origin, and how he illustrated its analogy to the anterior or motive spinal nerves. We have also seen why he was led to regard it as the great and first cerebro-spinal nerve in respiration and of expression in man. In no department of semeiotics does this physiological truth characterise itself so vividly as in the features of a patient suffering from thoracic disease. We have only to picture to our mind's eye the countenance of a person with slightly raised brows,(a) uplifted lips,(b) full, staring, clear eyes, nostrils dilated,(c) mouth partly open, its angles drawn upwards and outwards,(d), and we write under it intuitively "dyspnœa." Let us portray two such mental pictures. Fill up one with some extra traits from memory's palette; thus a dusky hue is settled on the cheeks; a Modena red on the lips; a crop of "herpes" beneath or around them; the eye is heavy or expressionless; he looks stupid or muddled. You read instantly "Imperfect oxygenation of blood, from (probably) pneumonia." But we have not only a face before us to *look* at; we *feel* the skin; it is hot and pungent, the pulse heaving and rapid.

We *hear* the fine crepitation of an inflamed lung, and we *see* the passive state of the thoracic walls during respiration. No catechetical examination is required to corroborate evidence so free from ambiguity, and we unhesitatingly write down "pneumonia, first stage." But turn we to No. II. picture, and there the whole face is anæmic, the lips only of a rusty red, the cheeks blown out at every respiration, the patient in a semi-erect postnre. Feel the skin, it is cold; and the pulse, it is much below fever range. View the barrelled thorax, listen to the negative evidence of air circulation in the lungs, and "emphysema pulmonum" crops out before the mind's eye directly. Does he give you a reply to any question you may put to him? Be assured it will not be in monosyllables, as in the previous case, where every effort to throw a sufficient column of air on the vocal cords to render an answer audible is attended with increased suffering, whilst this one could sing a tune or talk with impunity.

Philosophers state that the body of a man of an ordinary size sustains a pressure of 324,000 pounds at the level of the ocean, which weight is equivalent to the support of a column of water 35 feet in altitude, through atmospheric pressure. That we are conscious occasionally of some such pressure our feelings during a murky autumnal day or just before an oppressive thunderstorm tell us unmistakably. In rude health and in ordinary weather, the elastic force of the air contained within the body, and especially that within the pulmonary cells, exactly balances or counteracts the same power from without. But this equiponderance is only maintained according to certain fixed laws. If there be a deteriorated, "dirty" atmosphere to meet a degenerated vital fluid circulating through the human lungs, the equipoise is disturbed; distress and disease ensue. We understand that the average pressure of nearly 15 pounds weight upon every square inch of our bodies is calculated on the standard of the thermometer exhibiting 60° of temperature, and the barometer 30 inches of atmospheric weight, or what is known as the level of the sea. To meet these ceaseless columns of decarbonising fluid on the pulmonary areæ, blood of a definite character is conveyed to them, the specific gravity of which ranges from 1050 to 1060, and its temperature from 96° to 100°.

Now, the specific gravity of a cubic inch of air is ·185, that of water 1000, that of blood 1050. The latter is, therefore, somewhat ·865 times heavier than air. Each inspiration carries into the pulmonary cells forty cubic inches of air weighing 12,980 grains, whilst the same amount of blood weighs about 10653·3 grains. This fluid contains, on an average, 790 to 850 per thousand of water; but if this ingredient is so far increased and the solid constituents lessened, its resisting power to a column of air charged with excess of moisture is much reduced. A sense of oppression begins, and shortly leads on to further distress in breathing, especially if the temperature of the air has fallen considerably below its average. Under these disadvantages the person may be called upon to make some considerable muscular exertion, and this effort suddenly breaks down the delicate pulmonary areolæ, unsupported, as it is, by blood sufficiently heavy to antagonise the inspired air. Hence emphysema may be often traced to have originated in blood disease. In such a deteriorated condition of the circulation, with very cold and moist weather, our labourers and navigators, after long privations, return to the work of the pickaxe and spade, our stone rammers to the use of the huge blocks of wood, and our charwomen to a week of hard washing, when, with no other support than tea, butter, bread, and vegetables, oppression at the chest, dyspnœa, cough, and restless nights have compelled them to seek relief at our Hospitals. The physical signs of early emphysema have always been present in such cases, and a tonic line of treatment, in which iron or bark formed the leading feature of it, has proved the most successful. The explanation of these phenomena we have attempted to describe. The presence of a definite quantity per cent. of albumen, liquor sanguinis, urea, with its salts, etc., forms the standard of healthy blood. The colourless corpuscles, by their number, typify the high or low nutritive condition of the individual. These bodies transform albumen into fibrine, and thus prepare the "raw material" for the delicate machinery of the innumerable wheels of animal organisation. If this vital ingredient, albumen, becomes an ally with an excrementitious secretion, as urine, and is sent away from the living storehouse day after day, we may soon expect a pallid skin, flabby muscles, softened mucous tissues, attenuated frame, dyspnœa, palpitation, a listless mind, deficient sleep, a capricious temper, and fatal anasarca or uræmia. The history of the case which forms the subject of our present portrait will elucidate these remarks in a striking manner.



(a) These actions are through the frontal branches of the nerve to the muscles of the forehead and eyebrows.
(b) Through branches to the eyelids.
(c) Through branches which move the nostrils and upper lips.
(d) Through the same as the preceding, and those to the lower lips.

M. W., aged 53. The puffy and anæmic state of the face strikes the eye at a glance, and gives an infallible clue to the origin of the woman's sufferings—her blood has been robbed of its food. The corrugated forehead and raised brows, with their cushions of œdematous lids, come out vividly in the mute language of physiognomy, and confer, with the pallor of the skin, to lead the mind to write down "Renal disease, with pulmonary distress." A pellucid, bleb-like state of the conjunctivæ, also, is highly characteristic of attenuated or defibrinated blood with dropsy. How expressive of long-continued suffering, borne with calmness, is read in the full and anxious eye! The dilated nostrils, their alæ waving to and fro in the agonies of pulmonary distress, declare her inability to lie down in bed, and the original portrait represents orthopnœa. The pasty, bloated condition of the cheeks hides the acute angles of the closed mouth, which are drawn outwards and downwards, telling us that important organs within the abdomen are associated in the general distress. The upper half of the physiognomy points indubitably to renal dropsy with severe emphysema, but the lower portion exhibits the qualmish languor of "stomach-ache;" the shoulders are much raised, and are in good keeping with the upper half of the face. The pathology of the case is very common. In justice to our early labours and original discoveries in this branch of study, we beg to trespass on the reader's attention the following facts. In the year 1839 an important statement was put forth by the writer, and corroborated a few months afterwards by Hecht (e) It consisted of the subjoined paragraphs:—

"I have already stated that in Bright's disease the urinary ducts become surcharged with oil-globules, and that this change forms the very essence of the disease in question, whilst the secondary effects are light pale urine, with more or less albumen, secreted by fatty, mottled, porphyry-like kidneys, and a similar change of fatty degeneration coexists in the liver. Crystals of spermaceti-like substance, the stearine of fat, form within the tubes, give rise to inflammation and minute abscesses on the surface, containing a gelatinous mass surrounded by a less solid substance and an opaque or milky fluid. These have been ascertained to hold white, brilliant, silvery scales, soluble in boiling alcohol, from which they crystallised on cooling."

Again: "The tubular portions are encroached upon and impacted by shapeless masses of fat. This unnatural growth within and around parts so exquisitely delicate in structure, and so highly important in function, produces most serious disturbances in the action of the whole organ. Many instances have occurred where the tubular structure of the kidney was supplanted by huge lumps of this hypertrophied fat, and nothing remained around them but a small portion of the vascular substance of the organ." But I should have remarked that the liver becomes, in the majority of cases, the seat of fatty accumulations also; hence a greasy or caseous liver is by no means an uncommon pathological feature in this fatal disease. The heart becomes thin in its walls, and dilated in its cavities; fat accumulates around its base and apex, whilst small fatty pendulous bodies are occasionally met with in its semilunar and mitral valves. (f)

All these facts have been since elucidated by Gluge (1841), Henle (1842), Canstatt (1844), and Müller (1845), and, lastly, in a paper read before the Medico-Chirurgical Society in 1846, Dr. George Johnson defined Bright's disease to consist "primarily and essentially of an exaggeration of the fatty matter which exists naturally in small quantities in the epithelial cells of the healthy organ." Every candid reader must demur to assent to the following assertion:—"No pathologist has given any very definite account of the kind of liver disease most commonly associated with Bright's disease; my own observations have led me to conclude that, in by far the greater number of cases of Bright's disease, a fatty degeneration of the kidney is associated with a similar fatty degeneration of the liver."

It only remains to be stated that this woman had suffered from long-continued albuminuria, which led on to that deteriorated condition of the circulation so productive of emphysema and bronchitis. The whole mucous tract was softened, the pulmonary cells broken down, the membrane everywhere of a dusky vascularity, the heart pale, soft, and dilated in its cavities, the liver cirrhose, and the kidneys in an advanced state of anæmia, degenerated, hard, mottled, and had no fat within or around them.

(e) "De Renibus in Morbo Brightii degeneratis." Berlin. 1839.
(f) "Popular Treatise on the Kidney. By G. Corfe. 1839. P. 288.

THE NEW BULLETS AND THE WOUNDS PRODUCED BY THEM.

By ALEXANDER BRUCE, M.S., B.Sc. Lond.,
Fellow of the Royal College of Surgeons; Surgeon to the Islington Dispensary.

Accounts of the experiments of M. Sarazin on the effects produced on the human body by the Chassepot bullets have recently appeared in many of the public journals, and have given rise to a somewhat exaggerated estimate of the value of this weapon. M. Sarazin's experiments have undoubtedly proved that more serious effects are produced by the Chassepot than by the ordinary form of conical bullet. The difference, however, is due, not to any special virtue in the French rifle, but simply to the adoption of a principle of bullet construction the value of which is now generally recognised, and is even being introduced into our own army in connexion with the Snider rifle. I may state here, *par parenthèse*, that the introduction of the breech-loading system of firearms will not only have a great effect in giving increased rapidity of discharge, but will also permit the use of projectiles of a highly destructive character, such as could not be safely or effectively discharged from muzzle-loaders. These new weapons are therefore doubly destructive. As the question is an important one, and is likely to attract much attention during the next few years, I have been induced to make some inquiries into the causes of the difference in the action of the various bullets now in use, the results of which may, I think, prove interesting to others. I am indebted to Mr. Dougall, the eminent gunsmith in St. James-street, for much valuable information on this subject, and for the specimens of distorted bullets which are figured below.

It is stated by the older authors on gunshot injuries that the aperture of exit is, as a rule, larger than that of entry. This statement, although doubtless true of the old round ball, is only partially so of the conical rifle bullet. It was indeed frequently noticed during the late wars that but little difference existed between the apertures, that of entry being not unfrequently the larger of the two. Sometimes, also, when the bullet had remained lodged in the body, a very remarkable extent of laceration of the soft parts was found around its track, and it was always much distorted in form.

The penetrating power of a leaden bullet depends on several circumstances, which relate to its momentum, the comparative softness of its metal, and to the resistance offered by the body against which it impinges. If a bullet driven at a high velocity strike after a short flight (say 100 yards) an object capable of presenting considerable resistance, such as a bank of clay or sand, it will be found to have penetrated but a short distance, and to have become greatly altered in form, producing a correspondingly large and ragged hole in the substance in which it is embedded, the reason being that the momentum of the bullet expended itself upon its own substance before penetration could take place. If, however, the same object be struck by the bullet whilst travelling with a lower velocity, penetration to a very considerable depth may occur, and the ball may be extracted comparatively uninjured, the aperture of entry being small. These facts will explain many of the apparent anomalies presented by gunshot wounds.

As a general rule, the conical bullets hitherto in use in the armies of Europe and America have, when fired at a moderate range, a very considerable penetrating power, and produce for the most part cleanly cut apertures of entry and exit, even when they have met with considerable resistance in their course. So fully is this fact recognised by our Indian Nimrods that simple conical bullets have been almost discarded in tiger shooting, as the cleanly punctured wounds, although in many cases ultimately fatal, do not produce sufficient shock at the time to retard the advance or prevent the retreat of the beast. The tendency has therefore been to return to the round bullet, especially as this can be combined with a certain degree of rifling, sufficient to secure accuracy of aim, whilst at the same time it permits an initial velocity to be given to the projectile far beyond that which is practicable with any conical bullet not of small and ineffective calibre.

Some years ago the principle of the exploding shell was combined with that of the rifle bullet, and Mr. Dougall informs me that these are now largely used in India, especially in elephant and tiger hunting. A small metal capsule is introduced into the centre of the bullet, and filled with a detonating powder composed of chlorate of potash and sulphide of anti-

mony. The subjoined figures represent a section of such a chambered bullet, and the appearance of the same after the explosion.

The effects upon an animal are described as terrific. If the bullet lodge in one of the cavities of the body, it explodes, and fragments of metal tear their way through the viscera, whilst the disorganisation is increased by the sudden evolution of large quantities of gas. When a limb is struck, the muscles are lacerated and torn up from their connexions; the bones also are usually comminuted, whilst the skin, curiously enough, is rarely ruptured. Such is the terrible missile, which, it is said, Herr von Dreyse has recently introduced into the Prussian army, having adapted it to the needle-gun.

By a very simple contrivance, however, a bullet can be made to produce almost equally destructive results without the necessity of adopting so cruel an invention, and it is on this principle that the Chassepot in common with the Boxer and other new bullets are constructed. This consists merely in boring into the bullet a cylindrical cavity extending from the apex for about two-thirds of its length (see figure); when in use the orifice of the cavity is closed by a plug of beeswax or boxwood.

When such a bullet strikes an object presenting considerable resistance, the shock is communicated to the column of air in the interior, and is immediately distributed in a direction outwards to the walls of the cavity, producing the most astonishing effects upon the form of the bullet. The appearance presented by such a missile after striking against a loose mass of fine sand may be seen in the figure, where it will be noticed that the base of the cone has been entirely driven out by the violence of the concussion, and that enormous lateral distension has taken place. The wound produced by such a mass must necessarily be fearful, the parts around the aperture of exit being especially liable to laceration, and the effects produced on the animal must differ entirely from those caused by a simple conical bullet: it is to these points that M. Sarazin has recently directed public attention. The effects, moreover, upon the internal organs are almost as formidable as those produced by the exploding shell, although not complicated by the escape of large volumes of gas.

It is probable, however, that, unless the bullet struck directly upon its apex—that is, upon the orifice of the cylindrical chamber—the effects would not be so marked as in the case represented above, and in this particular the Chassepot, Boxer, and similar bullets are inferior to the exploding shells.

The prospects of success in the treatment of such injuries would not appear very promising; but as yet there has fortunately been no opportunity of testing this point.

Caution to Writers of Prescriptions.—A suit is now pending, in Nashville, Tenn., brought by a Mrs. Brown, widow of Wm. Brown, *v.* J. D. Winston, a prominent Physician of that city, damages being laid at 40,000 dollars. The death of her husband was caused by twelve grains of morphia, alleged to have been prescribed by the Doctor, the mistake appearing to have arisen from the failure on his part of drawing a dividing line between the figures 1 and 2, which would have represented a half instead of 12.—*New York Medical Journal*, September.

NOTE ON A CASE OF ALBUMINOID PRECIPITATE IN THE URINE.

By ARTHUR LEARED, M.D., M.R.I.A.

A gentleman of slight make, 27 years of age, who had returned from the East Indies on sick leave, consulted me on account of the following symptoms—a sinking sensation before meals, and at times a ravenous appetite; but he had no proper dyspeptic symptoms. A soft murmur was found to have replaced the first sound of the heart. He never had rheumatism. The urina cibi was faintly acid, specific gravity 1035; it contained opaque casts of tubea, and oxalate of lime crystals. On the cautious addition of nitric acid it became perfectly white and opaque, like chylous urine, but cleared as perfectly by a further addition, or on being sufficiently heated. It behaved in the same way when acted upon by hydrochloric, acetic, or phosphoric acid; but when a precipitate was caused by bichloride of mercury, it was not redissolved by excess of the bichloride nor by heat. It contained no sugar, and its high specific gravity, due to excess of urea, is noticeable, as distinguishing it from albuminous urine.

It is plain that the precipitate was not albumen, although allied to it. As the patient was born in the West Indies, its alliance with the deposit which occurs in chylous urine also suggested itself, but the distinction was here again sufficiently marked.

Albuminoid precipitates in the urine have been recorded in a few instances, and would probably be found more frequently if distinguished from those of albumen. They possess great interest in their bearing on nutrition and other questions, and for this reason it seemed to me worth placing the present case on record.

PECULIARITY OF STRUCTURE OF HEART: NO TRICUSPID ORIFICE.

By WM. ILIFFE, M.R.C.S., L.S.A.

The following case, which occurred to me while acting as temporary House-Surgeon to the Children's Hospital, Birmingham, shows sufficient interest, from the peculiarity of the structure of the heart, to make it worthy of record:—

A child, aged 4 months, was brought to the Hospital, as an out-patient, exhibiting intense lividity of the body, face, and extremities, and suffering from great dyspnœa. On auscultating the chest, air was found to enter the lungs freely, and there was no abnormal sound connected with the respiratory acts. The heart's action was quickened, but there was no bruit nor other irregularity. The child was reported to have been strong and healthy at birth, and it was not until about three weeks afterwards that any lividity was noticed, and this was said to be greatest during the day. From the symptoms and appearance of the child, patency of the foramen ovale was diagnosed. On post-mortem examination, the body was observed to be emaciated and livid, but the lividity was not so well marked as during life. The pericardium was very thin and transparent. Heart: Auricles—right very large, walls thin, no trace of auriculo-ventricular orifice; foramen ovale patent, the little finger being easily passed through it; left natural, mitral orifice rather large. Ventricles—right quite rudimentary, its walls being very thin, and its cavity much smaller than natural; at its lower part it communicated by a small oval aperture with the left; there were no musculi papillares except at the apex, where there was a small one, the chordæ tendineæ of which passed into the aperture between the ventricles, and were attached around its edge; pulmonary artery and semilunar valves appeared normal. The left ventricle composed the greater mass of the heart; its walls were much thickened, and its cavity enlarged, and the musculi papillares were strongly developed; valves natural.

The peculiarity of this case consists in the entire absence of the tricuspid orifice, so that the blood which entered the right ventricle must have done so through the opening common to the two ventricles. And again, a single papilla at the apex of the right ventricle, with its chordæ tendineæ passing into and attached around the orifice between the ventricles, formed a kind of valve, which, no doubt, prevented the return of blood from the right to the left ventricle during the systole of the heart, and directed it through the pulmonary artery. The amount of blood sent to the lungs must have been very small,

from the rudimentary condition of the right ventricle rendering it incapable of holding or expelling anything like the natural quantity; and this was verified by the post-mortem appearances of the lungs, which were partly collapsed; and this deficiency would also account in great measure for the increase in the number of respirations, which would become a necessity. The child seemed to die more from inanition, as a consequence from the several structures of the body being supplied with the same blood (partly venous and partly arterial), than from any cause connected with the lungs; and it is remarkable that the child lived so long. Some pathologists may class this case amongst those of defective development, but on this point I should not like to give an opinion, as, from what I have read, there seems to be nothing definitely settled concerning the development of the valves. As for the communication between the ventricles and the patency of the foramen ovale, there are plenty of cases on record, but I have not yet met with nor read of one without an auriculo-ventricular orifice on the right side.

Nuneaton.

ON THE PREVENTION OF THE SPREAD OF CHOLERA AS ILLUSTRATED BY THE EPIDEMIC AT PILL, NEAR BRISTOL.

By R. W. TIBBITS, M.B., M.R.C.S., etc.

THE *Medical Times and Gazette* for September 21 contains a most interesting account of cholera as it at present prevails in Switzerland, and of the means, or rather of the no means, taken to prevent its spread. As described by a correspondent, the towns in Switzerland must be a very hotbed for the propagation of cholera and suchlike diseases, but that they are worse than the village of Pill was last year I can hardly believe, for the existence of worse sanitary conditions I hold to be wellnigh impossible. Your correspondent describes the disease as clearly imported into Switzerland; if so, I believe that, with proper measures, its spread might have been completely prevented. But for this a little wholesome despotism is absolutely necessary. To prove this, nothing more is, I think, required than an account of last year's cholera epidemic at Pill.

In July cholera made its appearance in Bristol, and I was appointed Medical Officer, under the orders in Council, to the Board of Guardians of the Bristol Union. The experience which I acquired during the epidemic amply confirmed the beliefs which I had derived from Dr. Wm. Budd of the contagiousness of the disorder, its mode of propagation, and of the means of preventing it. When, therefore, after the cessation of cholera in Bristol, at the beginning of October, it made its appearance in the village of Pill, about five miles from Bristol, towards the end of the same month, I was in a position to apply the results of my previous experience to its suppression.

On the evening of November 5, I accompanied Dr. Budd to the village in question, when we found that since October 21 sixteen cases of cholera or severe choleraic diarrhœa had been under treatment, and that six of the cases had terminated fatally. Through the kind recommendation of Dr. Budd I was appointed to a similar position in Pill to that which I had occupied in Bristol, and, having for the time being wellnigh absolute power, proceeded to put in force the measures which I had previously found most successful. To the right understanding of this epidemic a short description of the situation of Pill, and of the condition in which I found it, is absolutely necessary.

The village of Pill is situated near the mouth of the river Avon, and is built on the new red sandstone which there in many places crops out near the surface. It ordinarily contains about 1800 inhabitants, of whom the greater part are sailors or pilots, but at the time of which I write its population was increased by an influx of two or three hundred navvies, then engaged on the Bristol and Portishead Railway. All these were screwed into a little corner bounded by a brook and the river Avon. The houses were built extremely closely together, and in no instance rose above two stories in height. In fact, the place was fearfully overcrowded. The houses are mostly built on the steep slope of a hill, but partly also in a valley through which runs the brook already referred to until it empties itself into a creek of the river Avon. At the extremity of the village furthest from the river was a ditch two or three feet wide and one or two feet deep, filled to the brim with the refuse of a brewery and the sewage of a cluster of houses built at some distance from the village. This ditch emptied itself into the brook, which was, in fact, the grand sewer of the place, receiving the drainage, when there was any, from most of the houses, and having, in many instances, privies communicating with it by open drains. In the case of houses situated at some little distance from the brook, there were frequently no drains, and the privies communicated with open cesspools containing more than a cartload of filth. Worse than this, if possible, a good many of the houses had no privies whatever, their inhabitants making use of the open bank above and behind the house for this purpose. This bank, when visited, was absolutely covered with fæcal matter, so that it was impossible to move a step without treading in it. Apparently the only cleansing the place had ever undergone was by the rain—no very unfrequent thing in the quarter—washing this accumulated filth down the bank and into the houses below. Coupled with these sanitary sins was a deficiency of water, there being but two pumps in the place; the handle of one of these was chained down for the greater part of the day, so that practically the inhabitants had mostly to depend for their supply of water on a single pump. Both pumps were situated on the low ground—the one of them almost beyond the village, the other one close to the junction of the creek with the river Avon, and only containing water when the tide was up. Such was Pill in November 1866.

On the evening of November 5, Dr. Budd and I visited Pill for the first time, and found that sixteen cases of cholera had been reported. When I returned on the morning of the 6th, I found that nine more had occurred during the night. The disease was of a most virulent type, and showed every indication of spreading rapidly. On inquiring I found that the first case had occurred on October 21, the individual attacked being the landlady of a public-house much frequented by pilots and others from the Welsh coast, where cholera at that time prevailed; she died in about thirteen hours. Her discharges were partly thrown into the privy attached to the house, partly in accordance with the cleanly customs of the inhabitants of Pill, into the back yard on to a heap of refuse immediately beneath the windows of a range of houses behind. On October 25, in a room of the house immediately overlooking this heap of refuse, the window of which opened directly on to it, occurred the second case, the patient, in this instance, being a weakly child; she also died. On October 29 the third case occurred, this time at the opposite end of the village, but contagion could be directly traced. The patient was an old man of debauched habits who spent most of his time at the public-house at which the first case occurred, and was accustomed to use the privy (not a closet) into which the landlady's discharges had been thrown; he died on November 2. In the row of houses which I have described as having no privy, only the open hill behind, a fourth case occurred in the person of a navvy who had been frequenting the public-house so often referred to; this man recovered.

Thus far the cases I have described are distinctly referable to one source, but before this time a new focus of contagion had arisen. On or about October 26 a navvy and his wife arrived from Wales, bringing with them a child suffering from cholera or severe choleraic diarrhœa. Soon after their arrival the mother of the child, and subsequently two other people living in the house to which the child had been brought, were seized with cholera, and from this house the disease spread to several around it, contact between those afterwards seized and those originally attacked being easily traceable. Such was the state of Pill when I was called upon to take charge of it.

From what I had seen in Bristol, I was convinced of the uselessness of trifling with cholera by playing at its arrest by a few teaspoonfuls of carbolic acid or a handful or two of chloride of lime. My first duty was to prevent the disease spreading further, if possible. I therefore proceeded to disinfect all streams, privies, and dunghills through which the discharges were likely to propagate the disorder. Into the filthy ditch already described about half a ton of sulphate of iron was thrown, commencing at the brewery and ending at its outlet into the brook. This not succeeding in removing the stench the ditch exhaled, its surface was subsequently covered with chloride of lime. At the point also where the brook entered the village about a hundredweight of crystalline sulphate of iron was every morning thrown into the stream, so that it might gradually dissolve and destroy any germs contained in the water. Into every drain was poured a strong solution of sulphate of iron during the earlier period of the epidemic, as I wished to give this substance a full trial;

but finding that its deodorising properties were but feeble, it was finally abandoned for carbolic acid, which was used in the proportion of half a pint to a bucketful of water. The privies were washed down with the same solution of carbolic acid, and then fumigated with chlorine, and the surfaces of all cesspools were covered either with chloride of lime or Calvert's disinfecting powder. Where it was supposed that any choleraic discharges had been thrown, the ground was first watered over with a solution of carbolic acid, and then strewed with Calvert's powder. Like all other ignorant people, the inhabitants of Pill were obstinately opposed to anything that was to be for their benefit, but wherever it was possible the houses in which cholera had occurred were fumigated with chlorine and then whitewashed, whilst the floors were washed with a dilute solution of the permanganate of potash. In several instances, however, this process could not be completely carried out. All bedding and linen soiled with discharges from the sick were, as far as possible, destroyed, but, from various circumstances, this plan could not at first be completely carried out. Even afterwards, when arrangements had been made for replacing articles destroyed by new ones, the people stood in the way, concealing the soiled clothes whenever they could. Nurses were brought down from Bristol, who passed from house to house, wherever cases of cholera existed, teaching the people to receive the discharges of the sick into vessels containing disinfectants, or to disinfect them as soon as passed; but here also the obstinacy of ignorance intervened, the smell of the chloride of lime and of the carbolic acid being objected to, so that the less satisfactory sulphate of iron had frequently to be employed. In several instances they could be persuaded to take no precautions whatever, preferring to drown their fears in drink.

It was also discovered that the discharges of certain patients had been thrown upon a heap of refuse close by the well situated at the upper end of the village, and from which the inhabitants chiefly derived their supply of water. Dreading that worst of all forms of choleraic poisoning when the contagion is propagated by water, this heap was covered with a layer of Calvert's disinfecting powder. Next night a heavy storm of rain came down, and the water in the well was found saturated with carbolic acid, fortunately not with choleraic discharges. But as the water was thus rendered undrinkable, it was found necessary to obtain a water-cart from Bristol until, which happened a few days afterwards, pure and wholesome water could be led into the village.

A regular house-to-house visitation was also instituted, every house being visited twice a day, and strict inquiries made as to the existence of any diarrhœa amongst the inhabitants; even then we sometimes found that they would obstinately conceal any diarrhœa until the premonitory stage had passed away and cholera was fully established. Depôts were instituted whence medicines could be obtained on application, and where beef-tea, milk, ice, etc., were given to any one bringing an order from a Medical man or from the clergyman of the parish. The school-children were also carefully noticed, and the schoolmaster provided with medicine to be given to any child attacked with diarrhœa. Inquiry was also invariably made, when any one of them happened to be absent, as to the cause of their detention.

Such were the measures instituted for the arrest of cholera in Pill. Let us next examine the results. Four days were occupied in making all arrangements. In the two days preceding their institution fourteen cases of cholera had occurred. From the time that any decided steps had been taken for the arrest of the complaint until these were completed, five new houses became infected, and fifteen fresh cases occurred. After all the precautions above enumerated had been taken, only seven cases of illness were reported, and of these several of the patients had, without doubt, been infected before my precautionary arrangements had been completed, some of them having laboured for some days under severe diarrhœa, the last case of cholera occurring on November 17.

This, I think, sufficiently proves the importance and value of the measures taken; but, if anything was wanted to make the possibility of arresting cholera more certain, nothing could, I think, be more conclusive than the results of another case which came under my notice. A girl aged 19 years, living near Pill, came on a visit to the worst infected district; she returned home, was seized two days afterwards with cholera, and died in eleven hours. As there was no privy attached to the house, the evacuations had been thrown about promiscuously, thereby complicating the case; but immediately after the death of the patient all the bedding and linen were burned, the house fumigated with chlorine, the body at once nailed up in a coffin containing disinfectants, and all the ground where it was possible that discharges could have been thrown covered with Calvert's powder. The remainder of the people living in the same house were at once removed to a house set apart for such purposes; and, although two other members of the same family were subsequently attacked, one of them dying, every other person in the village escaped with impunity.

The facts which I have above enumerated will, I think, to a certain extent bear me out in affirming that cholera is a preventible disorder, wellnigh as much so as small-pox. The means adopted for arresting the disorder were not immediately effectual; but, as I have pointed out, doubtless certain of these individuals had been infected previously to the introduction of these measures. I am also aware that I failed in destroying all the *fomites* coming from choleraic patients; the patients would persist in concealing articles of clothing. Another point I hold to be of vital importance is that patients who have passed through the stage of collapse are, for a certain length of time, capable of propagating the disorder by their discharges, and the visits of these to the uninfected houses could not be prevented. It is also, I think, likely that the discharges of patients who have received but a small dose of the poison, and who may never have rice-water stools, are capable of spreading the infection. Facts which I cannot now delay to cite, bear me out in these ideas, and are, to my mind, quite capable of accounting for the cases of cholera which occurred after the process of disinfection was instituted. Be that as it may, the results thereby obtained, and the results of like measures taken for the arrest of cholera in Bristol, are, without doubt, sufficiently promising to authorise the introduction of similar means elsewhere. Men may differ as to the origin of cholera; its treatment all are ready to admit as a wellnigh unsolved problem; but if we can invariably arrest its spread, as in the instances narrated above, we have at least done something. Whether men accept or do not accept Dr. Wm. Budd's theory of the propagation of cholera, the success of the measures founded on that theory, adopting the instances I have cited, renders it unjustifiable for any man to put them on one side without a further inquiry. Although I hold to that theory, I do not insist upon its acceptance by others, but I lay before them certain results and ask them if by any other method than that of disinfection they could have done better. I am convinced of the value of the method, and so, I think, will others be if they use carbolic acid and chloride of lime for destroying germs not promiscuously, but in their several places; for the two act in a perfectly distinct manner, and chlorine gas can go where carbolic acid could not be applied. Both are valuable if used aright.

I have purposely abstained from saying anything of the treatment adopted, as that in a great measure was left in the hands of Mr. Lloyd, Surgeon of the district, who was most indefatigable in his endeavours to allay the epidemic.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES OF LIGATURE OF LARGE ARTERIES—SUBCLAVIAN AND CAROTID: COMMON ILIAC, AND FEMORAL.

(Under the care of Mr. MAUNDER.)

Of the three patients who had been subjected to ligature of arteries by Mr. Maunder, and whose cases were noticed in this journal on September 28, two are dead.

Case 1 was that of suspected innominate aneurism, for the relief of which ligature of the subclavian and common carotid arteries had been resorted to. The patient had experienced uncomfortable sensations about the right shoulder for some months before pulsation was observed, and only submitted to operation when the tumour appeared to be almost on the point of bursting. A ligature was placed on the subclavian in the third part of its course, and as soon as that was effected the carotid was tied.

The appearance of the patient rendered the step which Mr. Maunder had undertaken far from enviable. The man was well nourished (fat), and the neck, by reason of the obstruction to the return of venous blood, greatly swelled, the struc-

tures being infiltrated with and glued together by albuminous effusion. The veins were greatly distended, and were ligatured when divided. At an unusual depth from the surface was found the external jugular vein of the size of the fore-finger. Under this the operator tunnelled until the artery was reached as it lay upon the first rib. The brachial plexus was not seen, but was felt in its sheath; but the direct guide to the artery in this instance was a small vein lying upon the artery, such as the operator had already noticed in operations upon the dead subject. A ligature was readily carried round the vessel on a twisted needle, the proceeding occupying twenty minutes. The common carotid artery was now dealt with, and ligatured high up, by reason of the position of the tumour. The patient died on the sixth day after the operation, and at a post-mortem examination the aneurism was found to have arisen from the ascending arch of the aorta, and to have included the root of the innominate artery.

This patient had been carefully tended and examined repeatedly by Dr. Davies and Dr. Sutton, but even now it appears to be impossible to determine whence a small aneurism at the root of the neck may arise.

Case 2 was that of a male the subject of inguinal aneurism of the right side and of diseased vessels generally. Judging from the history, the aneurism was consequent on a strain. Treatment by compression had repeatedly failed; the veins of the affected limb were greatly distended, and the patient had once almost lost his life by hæmorrhage from an ulcer on the leg. He was perfectly unable to earn his living, and was most desirous to undergo operation by ligature. The tumour occupying a good portion of the iliac fossa, the operator determined to reach the common iliac artery from above and from without, and made the incision from the point of the last rib, downwards, forwards, and inwards, to a point an inch internal to and below the anterior-superior spine of the ilium. The muscles were severally divided, and all vessels bleeding were ligatured at once. The transversalis fascia was carefully opened, and then the peritoneum, having a moderate quantity of fat upon it, was gently raised until the left forefinger reached what was probably the body of the fifth lumbar vertebra. The wound being well opened by two tongue-depressors, the artery was distinctly seen to pulsate. The areolar tissue about the vessel was scratched through by the finger-nail, and a ligature was carried round the artery from within outwards. Notwithstanding the distance of the artery from the surface, it seemed to an observer that the vessel was reached with comparative ease. The man died on the seventh day after the operation, with gangrene of the extremity. At a post-mortem examination, it was found that the external iliac vein had been completely and for some time obliterated, doubtless by the pressure of the aneurism, but the common iliac veins and the small extent of the former vein on the proximal side of the aneurism were pervious, and contained fluid blood. The ligature had been applied very near the middle of the right common iliac artery, which was about two inches in length.

Case 3 was that of a young man who accidentally punctured the femoral artery in the middle of the thigh. Blood had flowed very freely from the wound, and had been temporarily restrained by a pocket handkerchief tied around the limb. The operation consisted in enlarging the wound in the line of the artery until the hole in the vessel was seen, the point of the forefinger of the left hand being kept upon the aperture until the continuity of the artery was sufficiently exposed to allow of a ligature being applied both above and below the wound. This done, no further hæmorrhage occurred. The ligatures came away on the twelfth and thirteenth days respectively after operation, and the patient left the Hospital a few days later convalescent.

CASE OF TRAUMATIC PNEUMOTHORAX—PARACENTESIS—RECOVERY.

(Under the care of Mr. CURLING.)

For the following we are indebted to Mr. Bathurst Dove, who was at the time Acting House-Surgeon:—

Charles C., 13 years old, was admitted on June 24, having been run over across the chest by a cab. He was suffering from very severe dyspnœa, and manifesting great distress. Respirations 30 per minute, the auxiliary muscles of respiration being called into play at each inspiration. Pulse feeble and quick; lips blue; surface cold and livid. His respiration was so impeded that he could not give his name and address so as to be understood. Soon after admission he spat a small quantity of frothy mucus mixed with blood.

On percussion, the two sides of the chest were about equally resonant. The breath-sounds on the left were feeble; on the right they were accompanied by large crepitant râles.

He breathed most easily when lying on the left side, somewhat inclined to the prone position. There was no emphysema, nor could any important injury to ribs or sternum be detected.

On subsequent examinations, I found that the left side became more and more clear, and at length tympanitic, on percussion, and the breath-sounds more and more feeble. On the right, percussion was normal, and the râles progressively became smaller and more diffused over the chest. The cause of the great and prolonged difficulty of breathing now appeared to me to be not so much from shock to sympathetic plexus from the blow on the epigastrium (as I first thought) as from the fact that, whilst the function of the right lung was interfered with by the escape of blood into the bronchi, the left was being compressed and placed *hors de combat* by the escape of air into the left pleural cavity.

I resolved, should it become imperatively necessary to interfere, to perforate the left side of the chest and allow the contained air to escape. 3 a.m.: The lad tried to call out for water, and immediately spat up two or three mouthfuls of blood. His breathing became much worse, and his outcries and struggles for breath were very distressing. He began to be delirious.

On examination of the chest the right side was still found as before described. Left side: Intercostal spaces somewhat bulged; the measurement of the left side of the chest one inch and a quarter greater than that of the right; its walls did not rise normally during inspiration. On percussion, both mediate and immediate, the sound elicited was clearly tympanitic. Only the larger bronchial sounds were to be heard on auscultation; the heart was displaced downwards and to the right, so that the apex beat was just below the ensiform cartilage. Pulse 120; respiration 42 per minute.

I punctured the left side between the fifth and sixth ribs by means of a fine trocar and canula. Air escaped with a prolonged hiss, and the breathing immediately improved. On laying the hand on the chest the heart could be felt gradually to regain its normal position. When the air ceased to escape the canula was withdrawn, a pad was placed over the opening, and a flannel bandage was applied round the chest. In ten minutes the lad was asleep and breathing comfortably, and he had no pain, dyspnœa, nor any other bad symptom up to the time of his discharge. The subsequent treatment was rest in bed for ten days, suitable diet, and an aperient.

The above case, Mr. Dove remarks, suggests the following conclusions:—1. Such cases should be carefully examined to ascertain whether intra-bronchial hæmorrhage or shock is the only cause of distress and danger, or whether there be not in addition some complication which may be capable of relief. It must be rare for interference with the function of one lung, the other being sound, to cause such urgent dyspnœa. 2. We need not be deterred from perforating the chest in cases of traumatic pneumo-thorax by the fear that the pleural cavity will rapidly fill again with air, as it does not always refill. 3. It is prudent to wait till the lung is somewhat compressed before interfering, because in the meantime it may be found that the operation can be dispensed with, and if needful it can then be done with less danger of wounding the lung, the compression which this organ may have suffered being favourable to the arrest of hæmorrhage, if there be any, and to the closure of the rent in its pleural surface.

ST. THOMAS'S HOSPITAL.

CASES OF DEFECT OF SPEECH, WITH HEMIPLEGIA OF THE RIGHT SIDE.

(Under the care of Dr. PEACOCK.)

WITHIN the last few weeks a series of cases, illustrating the connexion between hemiplegia of the right side and the loss of the power of speech, or aphasia, have been under Dr. Peacock's care at St. Thomas's Hospital. One of these cases was that of J. E., aged 39, a married woman, but without children, who was admitted on July 19. She had been seized with a fit four days before her admission, when she was taking her supper, and fell off the chair in which she was sitting; and when, after an interval of about half an hour, she recovered her consciousness, she was found to be paralysed on the right side, and incapable of speaking. She probably had another fit the following night, as she fell out of bed. When admitted, she had complete loss of the power of movement in the right

side, and could not utter any articulate sound, so that she had to express her wishes by signs, her intelligence being apparently unimpaired. About two months after she was received she again had an attack, apparently of an epileptic character, which, however, left her much in the same state as before. During the time she has been in the Hospital there has been no material improvement in the state of the right limbs, and she has not been able to utter any articulate sound. It is doubtful whether the sensation is impaired in the paralysed limbs, but she appears thoroughly conscious, and conveys, indeed, the impression of being a person of unusual intelligence. There is no loss of power over the lips and tongue, and she swallows without any difficulty. She makes signs to indicate her wishes, and sometimes becomes much excited and cries if her signs are not understood. Attempts have frequently been made to get her to write; but though, when a slate is given to her, she makes marks upon it, there is no resemblance in them to any letters or words.

In the next bed to this patient is one whose case is the very converse to the first, the paralysis being on the left side, and the power of speech being unimpaired. The case is that of a female, H. H., aged 49, unmarried, and who for twelve months, concurring with the cessation of the catamenia, had suffered from symptoms threatening cerebral disease. She was suddenly seized, ten days before her admission, as she was leaving her house to go to church. She first let her prayer-book drop out of her hand, and then fell down, retaining, however, according to her own account, her consciousness all the time. When she attempted to rise she found that she had lost the power over her left side, and she spoke thickly, and had some difficulty in expressing herself; but that soon subsided. When admitted she was completely paralysed in the left side, but she spoke perfectly distinctly and clearly, and her intelligence seemed unimpaired, though the nurse said that she was disposed to talk too much, and not always rationally. She has not materially improved since her admission, but says she has pains, and feels more power in the paralysed limbs. Her speech has at no time been at all affected.

In two other cases the right side was paralysed, though less completely than in the former instances; and in both of them there was some defect in speech, though to a much less marked degree than in the first case. One of them was a female, aged 57, admitted August 4. There were bedsores on the back and hips and on one leg; she had some power over the right arm and leg, and she spoke thickly, and sometimes could with difficulty be understood; occasionally also she made use of wrong terms, addressing her nurse as "sir," and the Doctor as "ma'am," without apparently being conscious of the mistake. Under a tonic course of treatment and careful management, the bedsores rapidly healed, and she partly recovered the use of the paralysed limbs, but the power of speech and the defect of the memory of words continued much the same during the two months that she was in the Hospital.

The fourth case was that of a man with imperfect paralysis of the right side, and some, but not very marked, impairment of speech.

ROYAL FREE HOSPITAL.

CASE OF COMPOUND FRACTURE OF THE OS CALCIS.

(Under the care of Mr. DE MERIC.)

[Reported by Mr. C. S. JEAFFRESON, Senior Resident Surgeon.]

On October 11, a man, whilst riding upon the top of a van laden with empty packing-cases, was suddenly thrown from his seat and fell a distance of sixteen or seventeen feet into the road. The whole weight of the fall was directed upon the os calcis of the right foot. He felt something give way at the time, and on attempting to rise found it impossible to put any weight upon the limb. Within five minutes of this time he applied for relief at the Hospital, so that a good opportunity presented itself for examining the foot before swelling had fairly set in. Upon a first glance there seemed little or no deformity about the foot, but careful comparison with the sound one showed the sole to be flatter than normal, and the curve in the contour of the limb formed by the insertion of the tendo Achillis to be somewhat increased. A small wound just sufficiently large to admit a probe existed on the inner side of the sole of the foot, at a spot perpendicular to the internal malleolus, and on grasping the anterior portion of the foot firmly and communicating a lateral movement to the prominence of the os calcis, most distinct crepitus was produced. On passing a probe into the wound above mentioned, it took a direction perpendicularly upwards, and distinctly insinuated itself between the broken fragments of bone.

Up to this time the diagnosis had been simple and easy, but as the swelling consequent upon so violent an injury began to show itself, the whole appearance of the foot changed; and so exactly did it tally with the description of these injuries given by Malgaigne in his work upon fractures and dislocations, that I cannot refrain from translating the passage bearing upon the point. Thus he says: "Swelling is soon developed, which rapidly spreads to the inner and outer malleolus, the instep, and a portion of the dorsum of the foot. The sides of the foot below the malleoli, a part of the sole, and, what is more remarkable, the heel and region of the tendo Achillis are quite exempt from it. This swelling masks so well the deformity of the subjacent parts, that an inexperienced eye would think an injury of the foot to be out of the question, and is so marked about the malleoli, especially about the inner one, as to draw one's attention almost irresistibly towards that spot." In this case the treatment was simple, there being no displacement. A pledget of lint dipped into carbolic acid was placed over the wound and limb, reclined upon an outside splint, and kept bent upon the knee. The patient, who is a healthy man 40 years of age, is progressing favourably.

Fractures of the os calcis are by no means common injuries. Like those of the patella, they may be divided, first into cases the result of muscular contraction, and, second, those the result of direct violence, and in very many other points may the analogy be borne out, especially as regards the separation of the fragments and the resulting union in the two classes of cases. Few of the Surgical authorities in general use give more than a passing observation to fractures of this bone, and they generally place the seat of the fracture posterior to the articulation of the astragalus. This may possibly be the case in all fractures resulting from muscular contraction, but in the present case, from the direction which the probe took, I feel certain that the fracture extended vertically between the two articulating facets for the astragalus; the interosseous ligament, together with the proper fibrous investment of the bone, preventing any undue separation of the fragments.

October 13th.—There are no symptoms of suppuration about the foot, and the pad of carbolic acid was removed from the wound; it was followed by the discharge of one or two drachms of fluid blood. Carbolic acid pad replaced.

22nd.—Is much easier; swelling rapidly going down, and no evidence of suppuration. There seems every chance of his making a good recovery.

24th.—He still continues to progress favourably; there is some ecchymosis about the inner malleolus, but little swelling. The second carbolic acid pad has not been removed.

MICHAEL FARADAY.—By far the best account we have yet seen of the life and scientific labours of our distinguished countryman is contained in an admirable memoir in the number of the *Revue des deux Mondes*, October 15.

CAMBRIDGE: NATURAL SCIENCES.—Mr. T. W. Danby, M.A., 17th senior optime, 1st in the First Class of the Natural Sciences Tripos, 1864, was on Tuesday last elected a Fellow of Downing College. Mr. Danby, who is Natural Sciences Lecturer at Trinity College, is the first person who has been elected a Cambridge Fellow mainly on account of distinction in Natural Sciences.

DEATH OF DR. J. MASON WARREN.—The educated circles of the city of Boston have been thrown into a state of gloom by the death of this celebrated Surgeon, the third in succession who has rendered the name famous in the United States. He did not, however, reach the advanced age of his father, John Collins Warren, but died on August 19, aged 56. The cause of death was carcinoma of the cæcum, combined with intussusception. Long after his symptoms became aggravated, and his nights sleepless, he continued to preside at Medical Societies, and to perform operations with the skill and adroitness for which he was famous. He has published numerous interesting communications, and several addresses, for the delivery of which he had a marked capacity; and only in the present year he issued his "Surgical Observations," a thick volume almost entirely derived from his practice at the Massachusetts Hospital.

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Medical Times and Gazette.

SATURDAY, OCTOBER 26, 1867.

THE COLONIAL UNIVERSITIES AND THE GENERAL MEDICAL COUNCIL.

The relation at present subsisting between the colonial Universities and the General Medical Council appears to be eminently unsatisfactory. It is generally acknowledged that these institutions have obtained, and deserve, unqualified local success as places of Medical education. As examples of efficient Medical Schools, we may mention the Canadian Universities and those of Melbourne and Calcutta. Graduates in Medicine of these colonial Universities have, in most instances, the right to practise in the colony of the University, and, in some cases, this right is secured and defined by a local registration resembling that instituted by the General Medical Council. Beyond the colony, however, the right does not extend. A graduate of the University of Melbourne has no legal status as a a Practitioner of Medicine in New Zealand or even in Sydney, and a Canadian Medical man could not, by virtue of his Canadian diploma, recover a fee in Australia. The only legal door through which can be obtained the right to practise Medicine in any part of her Majesty's dominions is the narrow portal of an old-fashioned house in Soho-square, which the Medical Council is content meekly to share with a Dental Hospital. In other words, the Practitioner whose name is on the British registry may practise his Profession in any colony or other part of the empire independently of all local authority, whilst his colonial brother is limited by the narrow boundaries of the district where he obtained his education.

This state of things, which is undoubtedly disagreeable and anomalous, is explicable mainly by the difficulties which obstruct all home legislation for the colonies. When people have gone to the other side of the globe and commenced statecraft on their own account, it is hardly to be expected that they will receive and obey implicitly laws which may be very wholesome for an old society like the one they have left, but which are irksome in the extreme, or simply useless, in the bush or the backwoods. On the other hand, to admit persons whose only guarantee of fitness has been measured by a colonial standard to the full privileges of our learned associations and Professional bodies, would be, to say the least, an enormous concession on the part of the Home Government. In the case of the Medical Profession, it is one which the Medical Council could not make without instituting a check upon the teaching and examinations of the colonial schools. The great advantage of recent Medical legislation is that it gives the public some guarantee of a certain standard of Medical knowledge being attained by every Practitioner. Unless the General Council could exercise by the visitation of examinations the same influence over colonial examining bodies which it has so successfully established at home, an element of deterioration might be introduced which, with the increase of the colonies and the multiplication of schools of Medicine, might injure and depress the *status* of the whole Profession. Of course it may be answered that a visitation of colonial examinations is possible; but at least the difficulty of instituting such visitations by really competent persons could, in most instances, be only surmounted by an outlay which neither the Profession at home nor abroad would readily meet.

The petitions presented by the University of Melbourne and the other colonial Universities during the late Session of Council were of necessity answered by a statement that the law at present gave to the Council no power to give the right of registration to colonial graduates. The Council, however, held out the hope that in the Medical Acts Amendment Bill a provision would be introduced which would meet the wishes of the memorialists. A clause of the kind was framed by the Committee, of which Dr. Paget was chairman, and forms a part of the Bill which will be before Parliament in its next session. It is to the effect that "every person who has resided in the United Kingdom for a period of not less than twelve months immediately previous to making his application, and who legally possesses a colonial or foreign diploma from a University, College, or other body qualifying him to practise Medicine or Surgery in the colony or foreign country where such diploma was obtained, shall be entitled to be registered under the Medical Act (1858). Provided such diploma shall have been granted by a University, College, or other body recognised in a list to be annually prepared by the General Medical Council, which list shall be submitted to her Majesty in Council for approval, and shall thereupon be published in the *London Gazette*."

Now, we are not surprised that this clause has created much disappointment in the colonies. In the first place, it is scarcely fair to place colonial and foreign Universities on the same footing. To say nothing of consanguinity, or of the fact that the officers of most of the colonial Universities are men who have been selected for their eminence in our own schools, it must be remembered that the colonies have a claim on the Medical Council which foreign countries have not, inasmuch as registration confers the right to practise in all of them. This right, we believe, has recently been successfully asserted in Canada, in opposition to the local Medical authorities. On the contrary, very few, if any, foreign Governments will admit a British Practitioner to exercise his craft without submitting him to examinations and extracting fees. It is, therefore, scarcely fair to place the two on the same footing. The colonial Universities especially object, we are informed, to the year's residence in England which the clause imposes. We believe we are not mistaken when we say that this provision emanated from the Home Office, and not from the Medical Council. Still, we hope that it will be waived in the case of colonial graduates, as it seems exceedingly unjust to insist that a Medical graduate of Melbourne should reside a twelve-month in England before he has the right to practise in the next colony. On the other hand, if these gentlemen are to be admitted to the Imperial Register, it is clear that the Medical Council must obtain, either by visitation of examinations or by some other means, the supervision of colonial Medical education.

ECONOMY IN COOKERY.

The late M. Soyer, who was an undoubted genius in his way, held that the morals of a people greatly depend on their food, and because the ancients looked upon their *cuisiniers* as distinguished members of society, he naturally awarded them the palm of superior wisdom as compared with a degenerate race which rewards its cooks with a few paltry pounds a year and a home in the kitchen. There is something, however, to be said on the other side; for while there can be little doubt

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that were anything like a reasonable proportion of the cooks in our day possessed of the knowledge and skill which distinguished M. Soyer, they would long since, like him, have taken rank among the *savants* of society, the fact remains that a majority of the class upon whom we depend for the preparation of that food whose importance in relation to our moral character we are not disposed to question, are utterly and absurdly incompetent dabblers, quite devoid of even the most elementary acquaintance with the chemistry of the kitchen.

There is a great deal of shrewd worldly wisdom in the saying that "Heaven sends us good meat, but the devil sends cooks," however much the notion may shock our sense of moral propriety. Dyspepsia engenders perhaps the most unangelic frame of mind into which anybody can be driven by either of the thousand ailments afflicting humanity; and how frequently this complaint is caused by badly cooked food we can form a pretty good estimate. The absolute loss of nutritive power, and of the money value of food, which is due to the blind unreasoning prejudices and habits too frequently observed in its preparation, must be enormous. One would be afraid to hazard a guess at the quantity of nutritive substance wasted every year by bad cooking; but unless our food supply can be made to increase in an equal ratio with the increase of mouths to be fed, this question of waste will soon present itself in rather a serious light.

The Paris correspondent of the *Times* has lately called attention to an apparatus for cooking which he has seen in operation at the Exhibition, and which really seems capable of bringing about, not only a saving of the most valuable qualities of food, but also of fuel, water, time, and money. The invention is simplicity itself, and as we have personally examined and tested its powers, we are able to give a description of the *modus operandi*. We have first, then, a wooden box about eighteen inches square, and on raising the lid it is seen that there is a lining throughout of black felt (enclosing a thick padding), leaving an aperture in the centre, which contains a round tin box. We were courteously asked to name some viand for illustrating the use of the apparatus; and having selected a promising-looking chicken from the nearest poulterer's, it was placed in the tin box (which is really the cooking vessel, and has a lid like that of an ordinary saucepan), a sufficient quantity of cold water was added to cover the chicken, potatoes and rice were put in, and the cooking vessel was then removed and placed on a common fire. As soon as the contents had been brought to the boiling point, the vessel was quickly removed from the fire and dropped into its nest in the box; a wad of black felt was placed over it, the box-lid shut closely down, and the box carried away to that part of the room furthest from the fire. Two hours afterwards the box was opened, the wad removed, the cover of the vessel raised, and a most appetising odour gave promise which was amply borne out. The chicken had, in this automatic fashion, been cooked to perfection, and it was evident that the loss of flavour and delicacy by the ordinary process of boiling had been entirely done away with in the present instance. Potatoes and rice were equally satisfactory. The secret of this magic cookery will, we devoutly hope, be spread abroad, not only in the homes of the poor, but also among those who have long wearied of sodden, insipid meats whose goodness has all been boiled away at a hand gallop. The shrewd intelligence of the Norwegians is very well known, and we understand that, among other sensible practices common to the peasantry of that country, they have a way of insuring against burnt porridge by taking it off the fire as soon as it shows signs of ebullition, and putting it in a pan or jar which they cover over with hay for a sufficient length of time to cook it thoroughly. They have long known that when a certain amount of heat has once been generated in the food to be cooked it is only necessary to prevent that heat from being withdrawn by contact with cold air to complete the cooking of the food. It is the application of this principle (which is scientifically sound, and as old as the hills) that has resulted in the invention which bears the name of the "Improved Self-acting Norwegian Cooking Apparatus." The deal box is constructed so as to form a non-conductor of heat or cold, the reduction of temperature of any substance placed in it being so gradual and slow that a gallon of water shut up at 212° Fahr. would register 140° after the lapse of twenty-four hours.

As is well known, the chemistry of cooking shows that meats, whether boiled or roasted, should be first submitted to an intense heat, so as to fix the juices, and then cooked slowly at a low temperature. The neglect of this elementary bit of science is painfully apparent in the hard, indigestible, juiceless stuff which is so often to be met with at dinner tables. The automatic apparatus reduces evaporation to a minimum, and hence the remarkably fine flavour and nutritious quality of the comestibles prepared by its aid.

One can see at a glance what a host of uses this invention may be applied to, and how many advantages it offers. The economy in fuel alone would be immense. Instead of having to keep up fires from one meal to another throughout the summer, all the cooking necessary may be done the first thing in the morning. The fires may then be extinguished. The forces of nature working quietly and regularly, in most advantageous substitution for the costly inefficacy of intermittent attention from servants, provide a hot meal even after seventeen or eighteen hours' isolation of whatever food may have been placed for cooking in the box. The prospect of a diminished consumption of coal opens up the anticipation of a sky more clear and an atmosphere freer from pollution, with a consequent gain to the health of the dwellers in our large cities and towns. All the fire that is necessary to set the apparatus to work is just enough to raise the water in the tin vessel which contains the meat or vegetables, or whatever is to be boiled or stewed, to a brisk ebullition. The fire may then be put out; it has done its work. Referring to some of the more immediate practical applications of the apparatus, the *Times* correspondent says:—

"The pot is put into its nest of felt; lock it up, and leave it in your kitchen, or take it with you on your journey. Nurturing its store of heat, the process of cooking goes on hour after hour, just as you need soup, or ragout, or Irish stew, in your box, and ten or twelve hours after you will find it piping hot, so that you may leave London with your supper in your portmanteau, and before you have done your breakfast, and find it cooked and warm at night. Could not a trial be made of it for our troops? For campaigning what could be better? We have spent thousands on stoves and cooking ranges, and have only secured economy of fuel by accepting weighty iron machines with all sorts of tubes and stopcocks and steampipes. Any one who has campaigned knows that meat is rarely roasted; the ration is most usually boiled or stewed with vegetables. Suppose the camp fires lighted, the kettles just singing and bubbling. There is an alarm of the enemy, or the march must be renewed at once. Nothing more common—nothing more trying to the soldier's temper and patience. With these Norwegian kettles all the men would have to do would be to pop them into their wooden cases, put them on the mules or in the cooking carts, and trudge along to death and glory, or the next halting-place, where, if they arrived in a state to gratify their appetites, they would find their meals cooked and smoking hot, which, next to glory, is probably the most valued boon which could be offered to them at the moment. In the moor—in covert sporting, where crafty lords of land like to spare their pheasants by an interinde of hot lunch; in yachting; in fact, in all places where the processes of cooking are now wasteful and troublesome; above all, in the cottages of the poor, these Norwegian boxes, which are moderate in price, promise to prove of great utility."

We understand that the apparatus will be ready for delivery in London during next week, and that a place will then be opened where they may be subjected to the fullest inspection and experiment. We think so highly of the invention that we shall in all probability recur to the subject on another

occasion. Meanwhile we may offer a word of counsel to the patentee: Let your object be to produce the apparatus at the lowest possible cost, so as to insure its widest adoption, and, above all things, let it come within the reach of the poor.

ARMY MEDICAL DEPARTMENT.
STATISTICAL SANITARY AND MEDICAL REPORTS FOR THE YEAR 1865.

In our number of September 7 last, we laid before our readers a short abstract of the official report of the Medical statistics of the French army for the year 1865. The Report of our own army for the same year is now before us, and it gives us much pleasure to observe that, in the points in which we were able favourably to compare the state of health of our army during 1864 with that of the French army in France during 1865, the comparison is still in favour of our army. During 1865, in an average strength of 72,999 soldiers in the United Kingdom, the admissions into Hospital were 68,661; the deaths from all causes, both in and out of Hospital, were 647; and the average number constantly sick was 3368. These numbers give the proportion of 941 admissions, 8·86 deaths, and 46·14 constantly sick, per 1000 of mean strength. As compared with 1864, there has been in our army at home a decrease of 26 per 1000 in the rate of admissions, and of 1·13 per 1000 in the death-rate. There has, however, been an increase of 4·7 per 1000 in the number of men discharged as invalids. As compared with the average of the five preceding years, the results of 1865, shown in the following table, are still satisfactory.

	Ratio per 1000 of mean strength.			Discharged as Invalids.
	Admitted into Hospital.	Died.	Constantly Sick.	
1865 ..	941	8·86	46·14	86·4
1860-64 ..	1002	9·37	52·17	35·3

It will be seen from the above that the rate of invaliding during 1865 was slightly in excess of the average of the preceding five years. The average constantly sick has been 1½ per 1000 of the strength under the proportion of 1864, and 6 per 1000 under the mean of the last five years. We find it mentioned, in a condensed abstract of the French Statistical Returns attached to this Report, that the average number constantly sick of the troops serving in France was 54 per 1000 of the strength, which does not differ so much from the rate in our army as the enormous difference in the proportion of cases treated(a) might lead us to expect.

The particular item in which our army contrasts most favourably with the French is the most frequent cause of death. In ours, tubercular diseases carry off the greatest proportion—2·48 per 1000 in 1865, and 3·30 per 1000 during 1860-64; but in the French army typhoid fever is the most destructive. This fact appears to indicate that the hygienic condition of the soldier must be less carefully looked after in the French army than it is in ours, but there may, of course, be something in climatic peculiarities.

Compared with the result of the preceding five years, there has been a decrease in the rate of admissions of 27·5 per 1000 from miasmatic, and of 50·3 per 1000 from enthetic diseases. The mortality from tubercular diseases—2·48 per 1000—is less than that of the average of the preceding five years by ·82. This steadily progressive decrease in the prevalence of the so-called preventible classes of disease is most gratifying, and may fairly be attributed to the increased care which has lately been devoted to sanitary measures.

(a) Troops in France: Proportion of cases treated per 1000 of strength, 2090. Troops in the United Kingdom: Proportion of admissions into Hospital during 1860–64, 1002. For explanation of the cause of this apparent difference, see notice of the French Statistical Report in our number of September 7, 1867.

The seaport towns show a death-rate of 10·84 per 1000, which is the highest in the various classes of military stations, and chiefly depends upon the greater mortality at these places from miasmatic diseases and accidents, although the admission-rate from such causes is higher in many of the other classes. The death-rate is lowest in the camps, being 6·51 per 1000. Dublin and "manufacturing towns" give the highest admission-rates from enthetic diseases, being respectively 383·9 and 342·0 per 1000 of strength.

During the year the number of men constantly in Hospital for venereal diseases averaged 1318, being in the ratio of 18·06 per 1000 of the strength, or 39·1 per cent. of those constantly sick. The loss of service by this class of diseases has been equal to that of the whole force serving in the United Kingdom for a period of 6·59 days, and the average stay of the cases in Hospital has been 23·30 days.

We have referred to the reports of the preceding five years—from 1860 till 1864—for similar particulars regarding each, and on arranging them in the tabular form for facility of comparison, we find as follows:—

Year.	Rate per 1000 of strength admitted for Venereal Affections.	Proportion constantly Sick per 1000 of strength.	Equal to Loss of Service of whole Army for	Average Duration of Cases.
1860 ..	369	23·69	8·6 days	23·5 days
1861 ..	354	23·45	8·5 ,,	24·1 ,,
1862 ..	330	22·24	8·1 ,,	24·6 ,,
1863 ..	307	20·28	7·4 ,,	24·1 ,,
1864 ..	291	19·10	7 ,,	24 ,,
1865 ..	233	18·06	6·5 ,,	23·30 ,,

Surely here is a most important advantage gained, that in six years the rate of admissions for venereal diseases should have been reduced by 86 per 1000, the proportion constantly sick from same cause by 5·63 per 1000, and that two clear days of the service of the whole army should have been saved to the nation. It is satisfactory to find that the statistics of the army furnish such striking proofs of the utility of sanitary supervision, and of the possibility of effecting, in the mere saving of material, such an appreciable economical result. It is to be hoped that in a few years hence, when the Contagious Diseases Act shall have come into universal application, the decrease in the enthetic order of disease in both our military and civil population may be still more apparent, and that the resulting improvement in the public health may be sufficient to reconcile to the system those who now object to it on either economic or moral grounds.

Under the head of parasitic diseases we find that there were three admissions for guinea-worm at Devonport in the 28th Regiment shortly after its arrival from Bombay.

There were 42 deaths by accidents, being in the proportion of ·57 per 1000. 29 of these were by drowning. There were 21 deaths by suicide (10 by shooting, 5 by cutting throat, 4 by hanging, 1 by cyanide of potassium, 1 by precipitation from a height), being in the proportion of ·29 per 1000. The death-rates by accident and suicide are almost identical with the averages of the preceding five years. The rate of death by suicide in the French army in 1865 was ·53 per 1000, or nearly double that in our army.

From the classified summary of the causes of admissions, deaths, and invaliding in the different arms of the service, we find that, in the Household Cavalry and Foot Guards, tubercular diseases caused in 1865 a higher rate of admissions, and a greater loss by death and invaliding, than in any other branch of the army.

	Proportion per 100.		
	Admitted.	Died.	Invalided.
Household Cavalry . ..	23·9	3 30	7·42
Foot Guards	19 5	2·45	12 33

And on referring to the reports of the preceding five years we find that, with a few exceptions, these corps possess the same unenviable pre-eminence. It is remarked, in the Report under notice, that the total loss to the service by deaths and

invaliding from tubercular diseases has been less than the average of the five preceding years in all the arms, except the Household Cavalry, the Cavalry Depot, and the Infantry Regiments, and in the latter, though above the average, it has been less than in 1864.

With the exception of the 1st Division Depot Brigade Royal Artillery at Sheerness, and the 4th Depot Battalion at Colchester, the highest death-rate for the year is found in the Royal Horse Guards—viz., 14·85 per 1000 of the strength. It is a significant fact that for nine months of the year this regiment was quartered in the Hyde-park Barracks, about the sanitary condition of which our readers will remember there has been so much discussion during the present year. The death-rates of the Household Cavalry and Foot Guards have always been rather in excess of those of other less favoured corps. It is probable that their being quartered almost exclusively in London or its neighbourhood may exert injurious influences on their health. It must also be remembered that great height is only too often attended by weakness of constitution. In the 10th Hussars, quartered in Ireland during the whole year, no death occurred, although the proportion of admissions was above the average, but chiefly from the prevalence of venereal diseases.

The usual abstract of the results of revaccination of soldiers and recruits is given. The result of the revaccination of 721 soldiers is as follows :—

	Ratio per 1000. In those who bore marks of previous small-pox.	In those who bore good marks of previous vaccination.
A perfect vaccine pustule . .	487·8	508·4
A modified ditto	219·5	171·4
A failure	292·7	320·2
	1000·0	1000·0

So that, if these statistics be true, the immunity from small-pox generally supposed to be conferred either by having had the disease itself, or by having been successfully vaccinated, has no real existence. In the recruits revaccinated the proportion of perfect vaccine pustules, although not so high as in the case of the soldiers, is still much higher than we know it ought to be. This subject is merely noticed with the observation that "in some corps the amount of success was so great as to lead to a belief that modified pustules were taken for perfect vaccine vesicles; and towards the end of the year a circular on the subject was addressed by the Director-General to the Medical officers;" and we trust that the circular, aided by the curious results of revaccination as given above, will have the desired effect of causing a greater amount of care among military Medical officers in discriminating between "perfect" and "modified" vaccine pustules.

The influence of age on the mortality of troops serving in the United Kingdom is shown by a table in Section IV., of which the following gives the most important points :—

	Annual ratio of deaths per 1000 living at the following ages :—					
	Under 20.	20–24.	25–29.	30–34.	35–39.	40 and upwards.
Average of troops serving in United Kingdom (exclusive of depots), 1855 . .	3·54	3·49	6·75	11·05	17·40	14·49
Ditto ditto, 1859–64	3·01	6·09	8·25	12·23	15·61	19·65
Civil male population { England & Wales	7·41	8·42	9·21	10·23	11·63	13·55
Civil male population { Healthy districts	5·83	7·30	7·93	8·36	9·00	9·86

"This table shows a decrease in the mortality, compared with the average of the six preceding years, at each quinquennial period, except under 20 years, and from 35 to 39.

"As pointed out in former reports, the results illustrate the deteriorating effect of military service; for, while under 30 the mortality is lower than among the male civil population at the same ages, above that age the mortality is higher, and it increases with the advance of age in a much more rapid ratio than in civil life."

There were 2660 men discharged the service during 1865 from the troops serving in the United Kingdom, being in the proportion of 36·44 per 1000. This is under the average of the five preceding years by 3·33, but exceeds the rate of 1864 by 4·70 :—

"There has been a very great reduction in the proportion invalided from the depot battalions; but from the Household Cavalry, the Royal Artillery, the Foot Guards, and the infantry regiments, it has been above the average. About one-fourth of the discharges have been for tubercular diseases."

On the subject of recruiting we find in Section V. that—

"The ratio of rejections at the secondary inspection, calculated upon the numbers found fit at the primary, was, for those inspected by Army Medical Officers, 38 per 1000, and, by civil Medical Practitioners, 149 per 1000. As pointed out in last report, these rejections necessarily involve a very considerable expense, which might be saved by a little more strictness on the part of the civil Medical Practitioners, or perhaps a more practical knowledge of the requirements of military service."

We trust that the hint here given may have due influence with those civil Practitioners on whom occasionally devolves the duty of making the primary inspection of recruits. Out of a total number of 24,891 candidate recruits 9289 were rejected by the examining Surgeons. Of those passed fit in the first instance, 1309 were subsequently rejected at the secondary inspection, making a total of 10,598 found unfit, or in the ratio of 425 per 1000 examined. This certainly does not say much for the physical powers of men willing to serve in the army. It will be interesting to observe in future years whether a more substantial material can be procured on the increased terms lately offered. The highest proportion of rejections was made in the class of professional occupations, and the lowest, with the exception of boys, was among shopmen and clerks.

On the whole, diseases of the eyes and eyelida caused the greatest proportion of rejections—viz., 48·53 per 1000. Next come varicose veins, which caused 38·29 rejections per 1000.

THE WEEK.

TOPICS OF THE DAY.

As we foretold in our last number, Mr. Hilton and Mr. Prescott Hewett have been selected to fill the two vacant posts of Surgeon Extraordinary to her Majesty. Both appointments will be received with satisfaction by the Profession, as a due acknowledgment from the fountain of honour of well-earned Professional eminence. Court favours have had of late years a somewhat limited distribution, and we are exceedingly glad to note the fact that the great transpontine Hospitals have at last, since the death of Sir Astley Cooper, furnished a Surgeon to the Palace.

At 6 o'clock a.m., Greenwich time, on the morning of November 14 next, the earth will occupy the same position as when, in the same month last year, it encountered the shower of meteors and shooting stars. Unfortunately, the early dawn will interfere in this country and on the Continent with the perfection of the spectacle, but some of the shower will no doubt be visible for those who have the courage to face a cold November morning. Across the Atlantic the astronomers and sight-seers will be more fortunate, for Mr. A. S. Herschel calculates that the stream of meteoric bodies will be visible at New York at 2.35 a.m., and at midnight on the east and west coasts of Mexico. It is believed that the spectacle will equal in grandeur that seen by Humboldt in South America in 1799, and that of 1833, when an observer in North America described the meteors as falling "about as thick as the flakes of snow in common snowfalls."

Dr. Richardson continues successfully to employ his new anæsthetic, the bichloride of methylene. He has given it with the best effect in two more cases of ovariotomy, and in a case of operation for vesico-vaginal fistula. All the three patients were operated on by Mr. Spencer Wells. The average time taken for the production of anæsthesia was four minutes,

and in neither of the cases was any sickness produced. Dr. Richardson informs us that in carrying out his researches on the bichloride of methylene he has been led into a new inquiry —as to the condensing power of the pulmonary surface for gases and vapours. He believes that all gases and vapours which enter the blood by the lungs are condensed by the pulmonary surface into a liquid state previous to absorption, and this physiological result he finds in curious accordance with the facts brought to light by the experiments of Professor Graham on the condensation of gases by platinum and colloidal substances. If the condensing power of the lung be proved, it will afford an explanation of some interesting and difficult physiological problems.

The last Cape mail has brought a letter purporting to be from Mr. Moffat, a South African missionary, the brother-in-law of Dr. Livingstone, which states that "a message had been sent to the Sultan of Zanzibar, by a chief inland, that Dr. Livingstone had passed his territories, alive and well, at a point beyond the scene of the supposed murder." The news, however, is contradicted by Mr. Julius Kessler, a correspondent of the *Times*. This gentleman says "that he left Zanzibar on September 10, up to which date the Sultan had received no information whatever, and that Dr. Kirk assured him he fully and firmly believed that Dr. Livingstone was dead."

Sir James South, the astronomer, has lately died at the advanced age of 91. Like many other philosophers, he received an early scientific training for the Medical Profession. He became a Member of the Royal College of Surgeons, and practised for some years in Southwark. He afterwards, however, devoted all his time to the pursuit of astronomy, and obtained a very high position in the science. He was one of the founders, and at one time President, of the Royal Astronomical Society.

The honour of entertaining the British Association next year is sought by Plymouth and Exeter. The choice is to be decided by the three past Presidents.

A new work by Mr. C. Darwin on the "Variations produced in Animals and Plants by Domestication" is announced.

THE CHATHAM MILITARY HOSPITALS.

The Military Hospitals of the garrison were visited on Saturday by Major-General Freeman Murray and the divisional staff. The visit was an official one. The result of the inspection was most favourable to the authorities. The Hospital recently erected for the reception of soldiers' wives and children was also examined by General Murray, who expressed his entire satisfaction with the condition of the establishment. It may be mentioned that the visits were unexpected by the heads of the respective institutions.

REMOVAL OF THE SCAPULA, UPPER EXTREMITY, AND PART OF THE CLAVICLE.

On Saturday, Sir William Fergusson performed one of those great operations for which he has rendered himself and King's College Hospital so famous. The large theatre was crowded in every part with men of all ranks and degrees in the Profession, from the freshman to the old Practitioner of 60 or 70. The great operation was the removal of the whole upper extremity, including the scapula and part of the clavicle, for malignant disease of the scapula. The patient was a carpenter from Sydney, who, two years ago, received a slight wound on the shoulder-blade. In course of time—whether in connexion with this wound or not cannot be said—a tumour formed, enlarged, and gradually involved the whole bone, extending in front and to a certain extent implicating the humerus. The patient was recommended to come to this country, which he did, and was admitted into King's College Hospital, when Sir William, after careful examination, deemed it proper to perform the operation referred to rather than attempt the removal of the scapula alone. To this end he first cut down upon the clavicle, cut it across, thus setting the shoulder free and permitting free access to the artery for the purpose of compression. This was most beautifully done by Mr. Wood. Incisions were then made for the removal of the integument from the scapula itself, which, by a dexterous twist of the shoulder, was brought forward and separated from its attachment to the ribs from behind forwards. Finally, the necessary cut was made in front for the separation of the limb, and the removal was complete. The whole operation was performed with wonderful dexterity, and in almost less time than we have taken to describe it. Notwithstanding the magnitude of the operation, very little blood was lost—certainly not more than six ounces. Sir William performed a similar operation some two years ago on a young woman, who has since recovered most perfectly. Unfortunately in the present instance the success was not to be similar, for the patient sank and died on Monday.

CELIBATE FELLOWSHIPS.

We must thank our correspondent "Cantab.," whose letter we published last week, for strengthening our argument against celibacy as a condition of the tenure of Fellowships. It is no doubt true that, at Cambridge, several of the Colleges (five, we believe) have substituted tenure during a term of years without the condition for life-tenure with it. But this does not alter the case as regards the remaining twelve, nor as regards the whole of the sister University. Again, it may be true that, at Cambridge, the Fellowships have not prevented a considerable number of men from marrying early. But the evils of a celibate tenure manifestly affect those only who retain it, not those who give it up; and the fact that many wise men prefer to abandon it is surely no proof of the goodness of the system. We are informed that the statistics of the College to which we referred as desiring to abolish the restriction show that of the last 211 vacancies that have occurred among its Fellows, 92 were due to marriage, and 119 to other causes; and that of those who remained Fellows to their death, the average age was about 35. But as "Cantab." is clearly with us, and not against us, we need not pursue the argument further. He rejoices in his newly found liberty, and will no doubt gladly aid in the emancipation of his brethren.

MOULE'S DRY-EARTH SEWAGE SYSTEM.

A good deal of attention is being drawn to the efficacy of the system of earth-closet devised by the Rev. Mr. Moule, owing to the fact that a grant has been lately awarded to the inventor by the Indian Government. It is difficult to suppose that, in large towns like London, Liverpool, etc., the dry-earth plan can ever come into extensive operation; for, apart from the greater trouble it would involve on householders, it would give rise to such an enormous traffic in the introduction of fresh earth and the removal of the fæcal matter, that many of its advantages would be neutralised. In small towns and country villages, however, it may come into use, and may effect good service in preventing the pollution of streams on which large cities depend for water supply. We are glad to perceive, therefore, by Mr. Curgenven's letter in the *Standard*, that Mr. Moule's scheme has had a fair trial, and has been "attended with success" in the villages of Halton, Buckland, Weston Turville, and Aston Clinton. In these experimental cases the mechanism of the closet was found to work simply and effectually, the dry earth falling on the soil and completely and immediately deodorising it. Mr. Curgenven was shown about twenty tons of "earth in one shed that had been through the closet four times," and yet was tolerably free from odour. He thinks the system might be carried into use even in London, but in this opinion we cannot share. The amount of earth required to supply London would be so large that the expense and trouble attending its introduction would at once insure its speedy rejection.

PROSTITUTION AT THE CURRAGH.

"ARE we prepared to legislate on the whole subject of prostitution?" is the question suggested by the perusal of a series of papers which have lately appeared in the *Pall-mall Gazette*, in which are described the "nest," the "*ménage*," and the "manners and customs" of a colony of wretched women locally known as "wrens," living summer and winter on the outskirts of the Curragh Camp, in huts composed of bushes and brushwood. The papers are written in a terse vigorous style by a skilled hand, who, by a few masterly touches of description, puts before us, in all its grim truth and ugliness, the hideous life of these unhappy women. They are written with an amount of plain speaking which, in these latter days, appears to have taken the place of that reticence on certain subjects which used to be the rule in society and in publications intended for general readers. We have also to remark that the slum into which the writer in the *Pall-mall* has plunged so vigorously, and which he has stirred up so effectually that the smell of it will remain in our nostrils for many a day, is not morally worse than others that exist around us and in the midst of us. The moral debasement of the "wrens" of the Curragh is by no means greater than that of other birds of much finer feather that we meet every day in the streets of London and of our large towns; their physical destitution is no doubt most lamentable, but we shall commence at the wrong end if we attempt to alleviate that without remedying the other. This leads us back to the question with which we started—Are we prepared to legislate on the whole subject of prostitution? and if so, what shall be the nature of the treatment—absolute repression or legalised organisation? The former has always been found impracticable, and even were it not so there are few reasonable men who would now-a-days recommend its adoption. It is feared on all hands that the remedy would be worse than the disease, and that the infringements of domestic morality would be more numerous and more disastrous in their results than they are under present circumstances.

The alternative of legalised organisation remains; and this opens up so many questions that a decision cannot be hastily formed on it. In all classes of prostitutes the same degree of moral degradation exists. Once we succeed in elevating them beyond that, they necessarily cease to be prostitutes, and their further requirements need not be considered here. But the physical conditions of prostitutes continuing to live as such are as varied as those of the most virtuous of womankind—some in the lap of luxury, others as the writer in the *Pall-mall* so forcibly describes. Are we called upon by charity in her zeal to interfere, or shall we be justified on grounds of public morality, in relieving the physical needs of those who continue to lead the life so described? In other words, is public charity to supply an auxiliary means of support to the lowest classes of abandoned women, who, by the confession of one of themselves, prefer the gaol to the workhouse? We think that by so doing we should hold out direct inducements for them to continue in a vicious course of life. Every means in our power should be employed to prevent them from contracting and communicating disease—not for their own sakes primarily, but for the purpose of protecting the innocent—the wives and offspring of men who have exposed themselves to contamination. The sanitary surveillance considered necessary for this purpose has been provided by the Contagious Diseases Act, which, however, has not yet come into sufficiently general application. We have shown, in our notice of the statistics of the army for 1865, that two clear days of the services of the army at home have been saved to the country within the last six years before the Act came into force, and there is every reason to hope that a greater improvement will soon be observed.

Yet it must be confessed that at Aldershot, where the Act has been on trial for exactly a year, the annual rate of admissions into Hospital per 1000 of strength for enthetic diseases has been, during the quarter ending September 27 last, 285, as compared with 208 for the corresponding period of 1866. The primary affections, however, seem to be rather less prolonged. Thirty-one per cent. of the total weekly admissions of the quarter were from enthetic diseases. At the Curragh, during the same quarter, the percentage from this cause was 38.

The period during which the Act has been in operation is too short, and the experiment has not yet been tried in a sufficiently exhaustive manner to afford accurate data for deduction. We must have patience, and allow time for the full development of the result, which, we feel assured, will eventually be most beneficial.

The writer in the *Pall-mall* is hardly fair in insinuating that the condition of the "Curragh wrens," or others of their class, is attributable to the neglect of the "authorities" immediately in charge of the camp, or of the higher military authorities. Let the public opinion of the country decide on the question we have been considering, and let Parliament give expression and force to that opinion by definite legislation—if such be desired—but do not blame the military authorities or the civil executive power for not exercising means of repression or relief which the law has not yet conferred on them.

SAILORS ON THE AFRICAN SHORES.

THOSE who know anything about the West African trade are aware that the sailors employed in it are compelled to do work which is certainly unsuited to their powers, and displays very little humanity on the part of our merchants. It is a fact that in the palm oil trade the lives of sailors are set at a very low value. In bringing down the nuts and oil from the interior to the ships, natives alone should be employed, since their labour is suited to the contingencies of the occasion. To expose Englishmen to the pestilential influence of the rivers of Africa is wanton and cruel; yet is this done to avoid a trifling expenditure in native labour. The consequence is that every year a large amount of human life is sacrificed to the mercenary schemes of speculators. We call attention to this matter because an example has just occurred which we should like to see investigated. There is now lying in St. Katherine's dock a vessel which lately took out to the West Coast a "double crew" of sixteen men. Of these sixteen she has brought back only four, the remaining twelve having fallen victims to the well-known Lagos fever. In common humanity, we ask, cannot something be done to prevent this reckless waste of human life?

CHOLERA ON BOARD THE "HIMALAYA."

WE have received some particulars as to the appearance of cholera on board the *Himalaya* during her recent voyage from Malta to Canada with the 1st Battalion of the 60th Rifles. She sailed from Malta on September 5, when cholera was prevalent in Malta, and diarrhœa frequent among the ship's company. On September 7 two rapidly fatal cases of cholera occurred, the patients being a soldier and a child. On September 20 another fatal case occurred, but this time the patient was one of the crew, among whom diarrhœa prevailed throughout the whole voyage, and, as is usually the case, the greatest amount of sickness occurred amongst the stokers. Diarrhœa was also prevalent among the troops. Two patients suffering from it embarked, and there were fourteen admissions into Hospital and two deaths from this cause during the first fortnight, but the disease rapidly subsided, and during the remainder of the voyage the general health of the troops was excellent. On the ship's arrival at Quebec, she was ordered back to Grosse Isle—where she had already been detained twenty-four hours—to undergo a further period of quarantine. The troops dis-

embarked on the island, and two days—the 1st and 2nd inst. —were occupied in doing so, owing to boisterous weather. The sick were placed in the Quarantine Hospital, under charge of the Medical superintendent, and the others in huts. The embarkation with the troops of two patients affected with diarrhœa, and coming from a place where cholera was known to be prevalent, suggests a very grave suspicion that the germs of the subsequent cases of cholera were so introduced on board ship. The propriety of permitting such patients to embark appears to us very questionable. We have no information as to any cases of cholera having previously occurred among the crew, although it is admitted that diarrhœa was frequent among them. It is just possible that had the diarrhœa patients from the shore not been put on board, the tendency to the disease already apparent among the crew might have disappeared on the ship's getting out to sea. We think it ought to be an established rule that, under similar circumstances, suspicious cases of diarrhœa be not permitted to embark with healthy troops.

YELLOW FEVER AT NEWCASTLE, JAMAICA.

We have intelligence from Newcastle up to the 23rd ult. Since the despatch of the preceding mail there had been no death from yellow fever at Newcastle. Only two cases had occurred in the 84th Regiment—one man and one woman; the former had quite recovered, and the latter was proceeding favourably. No further cases had been reported in Kingston, Up Park Camp, Spanish Town, or any other part of the island. H.M.S. *Jason*, on arrival at Port Royal from Port Antonio, where she had been for the purpose of giving leave to her crew, had landed several cases of fever at the Naval Hospital. Some were of yellow fever, and very severe. No deaths, however, had been reported. The ship went out to sea again, and no fresh cases had occurred at the station. H.M.S. *Constance* had been in Port Royal Harbour since June last. Neither officers nor men had been permitted to go ashore; but during September the restriction was removed, and two very mild cases of yellow fever shortly afterwards occurred among the crew.

THE MAURITIUS EPIDEMIC.

From Mauritius papers of the 6th ult. we learn with regret that it is not unlikely that the proposed inquiry into the origin, nature, and progress of the late epidemic of fever in the island will prove abortive, in consequence of want of union between the Medical men and the General Board of Health. There appears to be a good deal of irritation felt by the Profession and the public generally at the mode in which the proceedings of the Board of Health are carried on, particularly at the meetings being held with closed doors. It appears also that the members of the Profession generally feel aggrieved at the style in which a series of questions on the subject of the epidemic has been addressed to them by the Board of Health, and that the majority of them are likely to decline to give any replies to questions presented in a manner considered by them to be very objectionable. The general opinion is that no reliable information will be obtained in the way in which the Board of Health have set about the matter, and that an Imperial Commission of Inquiry will be the only means of collecting and recording evidence which will be withheld from the Board of Health. As is only too common in small communities, personal feeling and jealousy appear to run so high as to preclude all higher considerations of the public good. This is the more to be regretted under circumstances such as the present, when, by the sacrifice of selfish considerations and a cheerful co-operation in investigation and comparison of experiences while still fresh in the memory, much valuable information might be obtained. Surgeon-Major Reid occupies a prominent position in the Board of Health, and this it is which appears to be the chief cause of offence among the civil members of the Profession. The series of questions asked by the Board of Health is ironically called "Reid's Catechism!"

FROM ABROAD.—A PROPER REPLY—THE ALLEGED SALE OF AMERICAN DIPLOMAS—DECAY OF "AMERICANS" IN THE UNITED STATES.

The following letter, which we transcribe from the last number of the *Gazette Médicale de Lyon*, is well worthy of recognition as embodying a principle which our Medical brethren will do well to bear in mind under analogous circumstances, which are not of infrequent occurrence. It is addressed to the agent of the English mineral water company at Balaruc by M. Tavernier, President of the Medical Association of the Rhone:

"Sir,—In a letter of September 19 you address your thanks to Dr. X. for having sent his patient M. C. to Balaruc-les-Bains, enclosing a 50-franc note as a premium. Our honourable *confrère* being unwilling to accept this sum, and not even desiring to dispose of it of himself for a charitable object, has forwarded your letter and the note to the Medical Association of the Department of the Rhone, of which he is a member, leaving in the hands of the Council of that body the further disposal of the matter. The Council, at its meeting on October 9, decided that this 50-franc note should be immediately returned to your company. It is of opinion that a Medical Practitioner cannot, without derogation, receive a premium for sending a patient to this or that thermal station any more than he can participate in the profits of this or that pharmacy. To devote the sum to some charitable object would, to some extent, compensate for the error that has been committed, recalling, indeed, the origin of many pious foundations; but such an employment of the money could not be made without the avowal that this kind of premium might be revolting to susceptible consciences."

The editor of the *Boston Medical Journal*, while publishing a letter from the Dean of the Medical department of the University of Pennsylvania denying the correctness of Sir D. Corrigan's statements as to the sale of its diplomas, continues as follows:—

"We trust the University of Pennsylvania will stand fully acquitted in the eyes of our brethren across the sea of the gross charge of Sir J. D. Corrigan, so publicly made. We feel, however, that the charge was made with much too little consideration, and shows a want of true Professional courtesy to the Medical Profession in America. At the present day no man has a right, in our opinion, to make the sweeping assertion that 'it is notorious that in America there are Universities that sell their diplomas to all who can afford to pay for them,' without the most undoubted authority for the statement. In point of fact, it is just as untrue as it would be to say that the Royal College of Surgeons of England sells its diplomas openly in America. Impostors there are, the whole world over, who never tire in their inventions to draw money from the pockets of the simple-minded and credulous. A fictitious Medical diploma would seem to be a very transparent form of humbug, were it not that the facts, in the present case, show the reverse to be true. We have many Medical Schools in the United States—too many by half: but the poorest of them has too much self-respect to countenance the practice of which one of the oldest, and one of the first reputation, stands accused by Dr. Corrigan. Great ignorance, we are well aware, prevails with regard to our Medical Schools on the other side of the water. It would be a good work on the part of the American Medical Association to transmit to the General Medical Council of Great Britain some information on the subject, and supply them with a list of our Medical Schools, in order that their graduates, when visiting Europe, might be met with the courtesy which, so far as our experience goes, is uniformly extended to European Physicians when visiting America."

Dr. Butler brought recently before the Vermont Medical Society the subject which is exciting so much attention on the part of thinking persons—the prospect of the decay of the native American population as compared with that derived from immigrant foreigners. It has been shown that in Boston the excess of births over deaths takes place only among the foreign population. In the various other towns of Massachusetts, in Vermont, Rhode Island, etc., the same condition prevails more or less. The records of the oldest towns in Massachusetts show that in the first generation there was an average of eight to ten children per family; the next three averaged seven and eight; the fifth, five; and the sixth, less

than three to each family. This falling off in the number of children, Dr. Butler believes, is almost entirely due to the general practice of inducing abortion, which prevails in small localities as well as large towns. He thinks that the morbid desire women now have for figuring in public life, and engaging in occupations hitherto engrossed by men, and the excessive pursuit of the pleasures of the world, are frequent motives for getting rid of incumbrances. He observes also that criminal abortion is much seldomer perpetrated among members of the Catholic Church, owing to the sacredness of human life from the instant of conception being raised to the rank of a dogma. With the mass of careless mothers, there is a terrible laxity in the reverence for fœtal life prior to the period of quickening. Believing that the practice of inducing abortion is as widely prevalent as it has been represented to be, and that it has become a crying danger as well as a burning shame for the community, Dr. Butler is of opinion also that it can only be counteracted by moral means. To this end he calls for (1) the determined and decisive testimony of the Medical Profession against it; 2, the arousing and alarming the public conscience as to the enormity and danger of the practice; 3, the earnest co-operation of the press, an agency so omnipotent in the United States, which at present acts mischievously by allowing of the publication of shameless advertisements; and, 4, an improved moral and religious cultivation. Several ministers, indeed, have taken up the subject in a duly energetic manner.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

M. Flourens, the distinguished French physiologist, who, amongst his other offices, holds that of Professor of Comparative Physiology at the Museum of Natural History, being unable, in the year 1864 (in consequence of other pressing scientific engagements), to deliver his summer course of lectures, requested his friend and former pupil, M. Vulpian, to relieve him of this duty. The veteran Professor was doubtless influenced in the selection of his assistant by the circumstance that the subject for that year was "The Comparative Physiology of the Nervous System"—a department of physiology to which M. Vulpian has devoted much experimental inquiry, and to which he has communicated a large number of memoirs, scattered through the pages of the *Comptes Rendus et Mémoires de la Société de Biologie* and other scientific journals. The lectures excited such general attention that many of them were specially reported for, and published in, that useful summary of French scientific progress, the *Revue des Cours Scientifiques*; and M. Vulpian, at the pressing request of his audience, and of his readers in the pages of the *Revue*, decided on publishing the whole course with considerable additions. That he arrived at this conclusion must be a source of gratification to the scientific world generally, for we have rarely, if ever, met with a work more richly stored with important original investigations; and its publication will form an epoch in the history of this mysterious department of human knowledge. M. Vulpian has presented us with a bulky volume(a) (containing thirty-seven lectures, occupying more than 900 pages) which may be regarded as composed of two parts—one devoted to the study of the general physiology of the nervous system, and the other to the comparative anatomy of that system. We shall now proceed to consider in detail the most important of these lectures.

The first lecture gives a general sketch of the nature and extent of the course, and of the most important conclusions at which M. Vulpian has arrived. The second lecture is devoted to the solution of the question—Can the phenomena of the so-called animal relations, such as movement, sensation, etc., manifest themselves in organisms in which no nervous system exists? The author adduces numerous examples, drawn both from the animal and vegetable kingdoms, to prove that these phenomena may be exhibited where no nervous system is present. Independently of anatomical and microscopical evidence of the non-existence of a nervous system in the protozoa generally, he adduces the following striking physiological proof:—All our readers are probably acquainted with the fact established by Cl. Bernard, that curare suspends or destroys the action of the motor nerves on the muscles. A fresh-water hydra was placed in a watery solution of curare sufficiently powerful to poison a frog, and remained unaffected by the poison. The third lecture is chiefly occupied by the consideration of the structure of the nerves of animal and of organic life. He regards every nervous fibre(b) as composed of (1) the *perineuron* of Robin, a homogeneous finely granular membrane which surrounds and encloses several primary bundles of nerve-tubes in the same manner as the myolemma acts towards the striped muscular fibres, and seldom reaches to the end of the nerve; (2) Schwann's *cellular sheath*, which is extremely thin, presents nuclei on its wall, and must be regarded as the true special envelope of each nerve-tube; (3) the *medullary matter*; and (4) the *cylinder axis* of Remak (frequently termed the axile filament), which is a solid, flexible filament lying in the centre of the medullary matter, and presenting no indication of being tubular. This axile filament, as M. Vulpian frequently terms it, is regarded by him as the one essential constituent of a nervous filament. In support of this view he adduces the fact that it is this filament alone which extends through the whole course of the nervous tubes; for at the peripheral or distal extremity, the perineuron, the tunic of Schwann, and the medullary substance disappear, and nothing remains but the axile filament; similarly at the origin of a nerve the cylinder axis is the only part that can be traced, when we follow the nerves into the depths of the grey matter of the nervous centres. Comparative anatomy confirms this view, for in many of the lower animals the nervous fibres appear to consist of this filament alone; and in some even of the vertebrata, as in the lamprey, almost the same condition exists, the axile filament being denuded of Schwann's tunic.

The nervous fibres in the same organism differ very considerably in their diameter, the larger fibres belonging chiefly to motor nerves, and the smaller fibres to sensitive nerves. In examining the diameters of the nervous fibres in the vertebrata generally, we find that, as in the case of the other histological elements generally, they increase in size as we descend in the animal scale; or, in other words, their size stands in an inverse ratio to the perfection of the organism. They are smallest in man and mammals, the nerve-tubes not exceeding from $\frac{1}{4000}$th to $\frac{3}{5000}$th of an inch in diameter; they are larger in reptiles and batrachians, and attain their greatest diameter in fishes. In the lamprey, for example, they sometimes acquire a diameter of $\frac{3}{1000}$th of an inch, and the single primitive nervous fibre that supplies each lateral half of the electrical apparatus of *Malapterurus electricus* has a diameter of no less than $\frac{1}{70}$th of an inch. These measurements include the cellular coating; and the essential element of the nervous tube, the cylinder axis, is only one-third or one-fourth of that of the measured sizes. The author adds nothing to our knowledge of the chemistry of the nervous tissue, and, indeed, is scarcely up to the mark in this department. He adopts as correct Funke's view that while in the normal state the nervous tissue is devoid of any reaction; it becomes acid after great excitement.

The fourth lecture commences with a notice of the old and exploded view, held by Sir E. Home and others, that the nerves, like the muscles, are contractile. After disposing of this error, and showing that the nerves present simply the phenomena of electricity, he proceeds to the study of the physiological action of the nerves. The essential properties of the nerves are, as he maintains, reducible to three. "The nerves are *conductors*, *excitable*, and, lastly, *excitors* (*excitateurs*)." After illustrating their power as conductors, he adds, "But are the nerves simple conductors? No, they are eminently excitable. Artificial excitants applied to them at any point of their course produce phenomena of sensibility or of motricity (c) in either the centripetal or the centrifugal

(a) *Leçons sur la Physiologie Générale et Comparée du Système Nerveux.* Paris. 1866. Our copy has been supplied by Messrs. Williams and Norgate.

(b) The difficulty of this subject is much increased by the number of names that have been given to the same structure. Thus, the medullary matter is also known as nerve-pulp, myeline, white substance of Schwann, etc., while the cylinder axis, or axis cylinder, is also described as the primitive band, the central or axis-fibre, the axile filament, etc.

(c) This word (*motricité*) was invented by M. Flourens to designate the physiological property in virtue of which the nerves when excited produce muscular contraction, and is intended to signify the same as the *vis nervosa* of Haller and his school. Although Vulpian terms it a "mot excellent," he observes that it is not applicable when the excited nervous fibres act upon the nervous centres, and produce either pain or reflex actions. In the first of these cases, he suggests that the property should be termed *sensitivité*, and in the second *excito-motricité*. He further proposes the generic term *excitativité*, if the word is not considered "too barbarous," as one that would include all the other properties.

direction. If we divide the sciatic nerve of any mammal—as, for example, a rat—on one side, this nerve will present two cut extremities, one of which is connected with the spinal cord, while the other is in relation with the periphery. At the moment of the division of the nerve, a movement is produced in the limb in consequence of the exciting action of the scalpel on the nerve. As soon as this primary effect wears off, if we excite the central end of the cut nerve the animal becomes thrown into a state of violent agitation and utters cries of pain, but it exhibits no movements in the muscles to which the nerve is distributed. On the other hand, you see that movements are produced, unaccompanied, however, with any manifestation of sensibility, when we excite the extremity connected with the peripheral end of the nerve. Hence the nerves are not simple conducting cords, but are themselves *excitable*, and the phenomena which demonstrate their excitability at the same time show us that they also act as *excitors*." (P. 67.) The various excitants employed in experiments on the nervous system are fully discussed, at the head of which are naturally placed *electric and galvanic excitants*. These are considered under the two heads of *continuous currents* and *intermittent currents*, and he concludes with the remark that "the action of galvanic currents on the mixed nerves and on the motor nerves does not reveal any real difference between the motor nervous fibres and the sensitive nervous fibres."

Chemical excitants are then considered. Many important results have been obtained in this department of experimental physiology during the last few years. For example, Eckhard has shown that a concentrated solution of chloride of sodium (common salt) acts both on the muscles and nerves, while a weak solution has no action on the nerves, and affects the muscles alone. The bile has been shown by Budge to exert a well-marked excitant influence on the nerves, and the more recent investigations of Kühne prove that pure bile, or a concentrated solution of its essential salts (the taurocholates and glycocholates of soda and potash), excites both the nerves and muscles; but if the solution of the biliary salts be weakened to 2 to 100 parts of water, or the bile be correspondingly diluted, an action is still exerted on the muscles, but the nerves are no longer affected. Some very interesting observations by the last-named physiologist on the excitant action of glycerine and of lactic acid are also recorded, but which we have not space to discuss. As a last exciting cause, which must not be passed over in silence, our author mentions "l'ischémie(d) et l'anémie." The effect of loss of blood on the nervous system is well known. If an animal is on the verge of death, pains are sometimes induced, and sometimes convulsions, and sometimes both these phenomena. A somewhat parallel case may be often observed in man after a ligature has been placed round the principal artery of a limb, or when an artery has been closed by thrombosis; the limb becomes cold and loses the power of movement, while acute pain, which is evidently the result of an excitement of the sensitive nervous fibres, rapidly supervenes. "How," inquires the author, "can we explain the excited state of the nerves, and also those intolerable pains that are produced by the arrest of the circulation? At present we can merely fall back upon hypotheses. Brown-Séquard refers the pains to an accumulation of carbonic acid in the blood; but this view is by no means generally accepted. From a general review of the facts I feel assured that the excited condition is due rather to an insufficiency of duly oxygenised blood than to the influence of blood charged with carbonic acid. For the mechanism of the excitation (if we may be allowed to use the word) I have no satisfactory explanation."—P. 84.

Passing over three elaborate lectures "on the electric phenomena which occur in the nerves," and "on the roots of the nerves," we pause to notice our author's views "on the terminations of the nerves." This lecture, which is in reality a valuable and complete history of the subject, is well worthy of a much fuller notice than we can devote to it, and we can refer our readers with confidence to it as containing an excellent *résumé* of the subject.

Our author examines first the mode of termination of the sensory, and then of the motor nerves. Modern histologists may be regarded as forming two distinct parties, of whom one holds that the cutaneous nerves terminate in a network, while the other maintains that they have free extremities. With regard to the former view, after explaining the opinions of Jacubowitsch and Beale, he observes that "the termination of the sensitive fibres by peripheral networks of nervous fibres is far from being as yet demonstrated; nor does it appear to be admissible, considering that we know many instances in which we see these fibres terminating in distinct extremities in certain minute structures," such as the *corpuscula tactus* and the Pacinian corpuscles. How the nervous fibres in the former of these structures terminate is not positively known. It may be regarded as certain that they do not necessarily terminate in loops, for a considerable number of these corpuscles are only connected with a single nerve-tube. M. Vulpian inclines to the view that the nervous fibres finally lose their outer coating, and are reduced to the axile filament, as is unquestionably the case in the Pacinian corpuscles. Closely allied in structure to the corpuscles of touch are the mucous corpuscles, first described by Krause in 1860, and which are now usually designated by German anatomists as the *corpuscles of Krause*. They were originally found in the conjunctival mucous membrane of man, but have since been detected in the mucous membrane of the lips, of the tongue (at the base of the filiform and fungiform papillæ), of the arch of the palate, and of the *glans penis et clitoridis*. Their discoverer describes them as small spheroidal sacs, filled with a semi-fluid matter, and having a double wall, in which are a few nuclei. Each sac is usually penetrated by a single nervous fibre, whose external envelope merges into the wall of the sac, while the medullary layer terminates at the point of entrance, and the axile filament alone makes its way into the cavity. From these and other physiological facts, including the demonstrated mode of termination of the nerves in the organs of sense, our author finally concludes that all nerve-fibres which are brought into play in the ordinary exercise of tactile sensibility terminate in isolated extremities, and in certain parts assume special arrangements, by which impressions may be conveyed with greater vividness and power than elsewhere.

Before proceeding to the consideration of the mode of distribution of the motor nerves, we may parenthetically offer a few remarks on those remarkable bodies, the Pacinian corpuscles. They were originally discovered by Vater in the course of the nerves of the fingers. They were next detected by Lacauchie in the mesentery of the cat along the course of the sympathetic fibres; and they have subsequently been found in various parts, their usual seat being somewhere under the subcutaneous cellular tissue. "In man they have been found on the palmar surface of the hand, the sole of the foot, and the dorsal aspect of those parts, on the fore-arm, the neck, and in connexion with the fibres of the pudic nerves, the intercostal nerves, the nerves supplying the joints, the suborbital nerve, the nerves of the arm and of the breast, the sacral plexus, and the various sympathetic plexuses. Their existence has likewise been demonstrated in the muscles of certain mammals. Thus Herbst has discovered them in the muscles of the leg of the sheep, and in those of the tail of the cat; and Lüdden has observed them in the cutaneous muscles of the rat." These bodies have been found not only in a large number of mammals, but in the skin, the limbs, the beak, and the tongue of birds. As yet, they have not been found in the cold-blooded vertebrates; the bodies that were mistaken for them in the peritoneum of the frog by certain German anatomists have been found to be merely encysted hairs, while those which Dr. Leidy thought that he had discovered in a boa constrictor were parasitic organisms. As these structures are most abundant in those parts of the body in which tactile sensibility is chiefly developed—as, for example, the palmar aspect of the tips of the fingers—it is most probable that their function is to intensify tactile impressions. The fact of their abundance in the mesentery of the cat at first sight seems opposed to this view, but Krause has ingeniously suggested that they are connected with some special arrangement of the viscera required by the cat-like animals generally in the act of springing on their prey.

Most of our readers are doubtless more or less acquainted with the details of the controversy that has been going on for some years past between Kühne and our distinguished countryman, Dr. Beale, regarding the mode of termination of the nerves in muscles. According to Kühne, the motor nerves divide and subdivide, till the fibres run either alone or in bundles of not more than two or three on the outside of the muscular fibres. There they soon penetrate the sarcolemma, and, at the same time, lose their sheath and the white substance of Schwann; while the axis cylinder, after entering the interior of the muscular fibre, gives off branches, which terminate in a chain of nucleus-like vesicles or pale ganglionic cells, from which extremely delicate pencils of fibres

(d) *Ischæmia* is derived from the Greek ἴσχειν *to arrest*, and αἷμα *blood*, and signifies an arrest of the arterial circulation.

issue. Kölliker, very shortly after the publication of Kühne's views, showed that in several respects they were incorrect, and Beale, who has devoted much labour to this subject, denies the penetration of the sarcolemma by the ultimate branches of the nerves, but describes them as forming a plexus composed of pale fibres of extreme thinness ($\frac{1}{100000}$th of an inch in diameter), intermixed with many nuclei lying in and over the fibres. According to M. Vulpian, Professor Rouget, of Montpellier, has now definitively settled this much-disputed subject. His experiments, which were originally instituted on lizards, and which were confirmed by observations on other vertebrates, lead to the following conclusions:—He has traced the nervous fibre dividing a certain number of times before it reaches the muscular fibre, and each branch undergoes the following modification when it comes in contact with the sarcolemma; it becomes mixed with, and lost in, that structure, and the medullary matter disappears, while the axis cylinder alone penetrates into the interior of the sarcolemma, and expands over the surface of the muscular substance in the form of a granular mass, thus giving rise to more or less prominent patches, which the discoverer terms the *plaques terminales* of the motor nerves. At these points there is, moreover, an accumulation of the nuclei of the white substance of Schwann. Except in relation to one point—the nature of the granular matter—Rouget's views have gained general acceptance; and this important disputed point may now be regarded as definitively settled in his favour, by a careful repetition of his former experiments, not only by himself, but by Vulpian and others. It thus appears that, like the sensitive fibres, the motor fibres terminate in extremities which have no connexion with the neighbouring fibres.

Regarding the mode of termination of the fibres of the sympathetic system, our author observes that "we know very little," and contents himself with referring to the termination of some of the sympathetic fibres in Pacinian corpuscles, and of others (as in the heart, lungs, intestinal canal, bladder, etc.) in a peripheral network of nerve-cells.

(To be continued.)

ABSTRACT OF A PAPER
ON THE
CONSTRUCTION OF THE CEPHALOTRIBE.(a)

By GEORGE H. KIDD, M.D., F.R.C.S.I.,
Assistant-Physician to the Coombe Lying-in Hospital, Dublin.

After referring to papers published in the *Dublin Quarterly Journal of Medical Science* for February and May of the present year, in which he had recorded several cases of cephalotripsy successfully performed, and in one of which the antero-posterior diameter of the pelvis measured only one inch and three-quarters, Dr. Kidd stated that his subsequent experience confirmed him in the opinion he had expressed in those papers that the cephalotribe should be used in all cases of embryotomy, in preference to all crotchets, hooks, and craniotomy forceps, and that its use would reduce the dangers of craniotomy to a minimum, and allow of its performance in cases where delivery could not otherwise be accomplished, except by Cæsarean section, and that even though the child were known to be dead.

Dr. Kidd stated that he had found in the use of the instrument that certain modifications in its construction were desirable, and exhibited a cephalotribe made for him by Messrs. Fannin and Co., Dublin, and demonstrated the use of it on a model female figure and mannikin. The peculiarities of this instrument were, that the blades were straight—that is, had no pelvic curve—whereby it was claimed that their introduction was more easy and safe; that the head could be seized more securely; broken up more completely; and rotated in the smallest space so as to bring its most diminished diameter into the narrowest part of the pelvis, and have, in that way, its extraction facilitated. The blades were ten inches long, equal to Baudeloque's original instrument and to Scanzoni's, and longer than most others. This enabled the instrument to reach and insure the breaking up of the base of the skull—the most important step in the operation—and also kept the lock of the outside of the vulva, whereby the soft parts of the mother were saved from being nipped in closing the blades.

The cephalic curve of the blade was very gradual, that the instrument might be easily applied, and the lock was made the reverse of that in ordinary use, a modification that Dr. Kidd said he had dwelt on at some length in his papers in the *Dublin Quarterly Journal*, and one which he believed should be adopted in all forceps and midwifery instruments. So much did he consider this to facilitate the application of the instrument, that he said he felt convinced no operator who had once tried it would ever willingly use an instrument with the lock differently placed.

(a) Read at the meeting of the British Medical Association in Dublin on August 8, 1867.

REVIEWS.

Ophthalmiatrische Beobachtungen. Von Dr. Albert Mooren, dirigirendem Arzte der Augen-Klinik zu Düsseldorf.
Ophthalmiatric Observations. By Dr. Albert Mooren, Surgeon to the Municipal Eye Institution in Düsseldorf. Berlin: August Kirschwald. 1867.

These "Observations" of Dr. Mooren are, he tells us in his preface, merely an enlargement of a clinical report submitted by him to the Government of Düsseldorf in the year 1861. They embody the results of ten years' practice in the Eye Institution of that town, and are intended as a "short exposition of the therapeutical and operative landmarks" which he has gained during that time from the immense mass of material under his care. It is not a systematic treatise on each of the various chapters of ophthalmology, but in the statistical tables furnished in the beginning of the book we have a guarantee that any remarks of his carry with them the authority of a large experience.

After lamenting that no record of the cases occurring in his practice during the years 1855-6 had been kept, the author tells us that the individual patients since that time amounted to 32,425, his total of operations being 5932. A full table of the cases is added at this point, and from another table, comparing the Düsseldorf Eye Clinic with other European eye institutions, the fifth place in magnitude among these is claimed for it.

Dr. Mooren arranges his material according to the anatomical seat of the diseases, and sums up in a few words the results of the treatment of each, enlarging now and again on any subject of particular interest.

The second chapter is devoted to the first class in his table—Diseases of the Orbital Cavity—and the author dwells at some length on retro-ocular effusions of blood with inflammatory thickening of the capsule of Tenon. There is here a case narrated of a cure of exophthalmic goitre by means of iodide of potassium and a seton over the breast.

From the fifth chapter—on Diseases of the Lachrymal Organs—we learn that Dr. Mooren has abandoned, in organic adhesion of the walls of the lachrymal duct, all attempts to open a passage, and resorts instead to obliteration of the lachrymal sac.

Severe cases of pannus are always treated by the inoculation of blennorrhœal discharge, and with uniformly favourable result, even when diphtheritis, instead of blennorrhœa, is produced. The scarification around the cornea and the removal of portions of the conjunctiva in its vicinity, so much praised and relied on by many, have been, for the last few years, entirely abandoned. Corneal infiltrations were treated by atropine, bandage, and a blister behind the ears, unless when the infiltration showed vascularity, in which case atropine was found harmful, or at least useless. A considerable portion of this chapter is devoted to the practical consideration of these infiltrations, as well as of ulcers and abscesses of the cornea, and many valuable hints are to be obtained from it. Several cases of vesicle-formation on the cornea are related.

Under the head of "Diseases of the Vascular Portions" (Krankheiten der Gefasshaut), affections of the iris, ciliary body, and choroid are discussed. Cyclitis, or inflammation of the ciliary body, characterised by intense pain of an agonising character upon pressure over the ciliary processes, was remarked as a frequent and speedy consequence of contusions of the front of the eye. Sympathetic disease is treated of at great length. Dr. Mooren differs from Von Graefe in the treatment of this disease only in so far as he advises in all cases enucleation of the eye, classing it as a necessary condition to the possibility of saving the secondarily affected one, while Graefe inclines to spare the first eye if its power of useful vision is still remaining, and to perform iridectomy on the secondarily affected one. The results of Dr. Mooren's experience do not warrant much expectation of good from

iridectomy of the eye which has been secondarily affected, whether the primarily diseased eye has been removed or not; but he has not tried the plan which Graefe recommends of using the broad iridectomy, which forms part of his modified linear operation for the extraction of the lens.

In treating of diseases of the lens, Dr. Mooren points out the connexion between the formation of cataract and previous "inflammatory or atrophic alterations in the region of the uveal tract"—*i.e.*, in iris, ciliary body, or choroid. He disbelieves in spontaneous clearing up of cataractous opacities of the lens, ascribing the frequently observed improvement of vision in such cases to the absorption of the pathological formations in the vitreous humour so common as complications of cataract. In coming to this conclusion, he entirely overlooks the carefully observed cases reported by Jaeger in the Austrian *Zeitschrift für praktische Heilkunde*, 1861, Nos. 31 and 32. In Dr. Mooren's operations for cataract, the results are overwhelmingly in favour of Graefe's modified linear extraction, the losses in this being 3 per cent. (all from *prolapsus corporis vitrei*) as compared with 6 per cent. of losses in extraction with previous iridectomy, 9 per cent. in normal extraction, and the same in extraction with accompanying iridectomy. These figures, in conjunction with Graefe's own sixty-nine cases without a single loss, and the 2 per cent. of losses in 100 cases recently reported in the *Archiv für Ophthalmol gie* (thirteenth volume, first division), 1867, by Knapp, of Heidelberg, warrant us in believing that this operation will speedily supersede the old flap operation in hard forms of cataract. It may be well to mention that Dr. Mooren treated 102 cases by the modified linear extraction, and lost three of these. He confirms Von Graefe's statements as to the short duration of the treatment required after his operation.

In discussing diseases of the retina, Dr. Mooren devotes a considerable space to elucidating what he calls "infiltration processes" in the retina, with the consecutive atrophy of the optic nerve; and having seen only seven out of his 152 cases materially improved by treatment, he speaks despondingly of the hope of a lasting improvement even in *any* case. The application at intervals of Heurteloup's artificial leech is highly praised, and much relied on in the treatment of retinitis. Dr. Mooren has observed apoplexy of the retina as a consequence of extensive burns of the skin.

It is impossible to indicate all the points of interest in Dr. Mooren's admirable "Observations." The book cannot fail to add to the already well-established reputation of its author.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

October 23.

On this day (Wednesday), at noon, the first stone of a new southern Hospital for this town was laid by the Earl of Derby. In a previous communication we noticed the inefficient accommodation afforded by the present structure for the rapidly growing wants of the district in which it is situated, and the intention of a building committee, appointed to consider and act upon the matter, to proceed to the erection of another so soon as sufficient funds should have been procured, and a site positively determined on. Built in 1842 for the accommodation of 50 in-patients, and enlarged to receive 20 more beds in 1849, it is now found, even though such further additions have from time to time been made as to permit, on an emergency, of the reception of 106 cases, that the provision is utterly inadequate. And, indeed, such a number as that last mentioned can only be received by curtailing most injuriously the cubic space that should be allotted to each, which, instead of being 1800 cubic feet, is often not more than 773. To show how the calls on the institution have increased, it is only necessary to mention that the number of weekly applications, which, in 1853, averaged 30 per week, had, in 1864, risen to 100, and is now even greater. The out-patient department has had also a large and steady increase in its numbers, an increase for which it can at present provide no adequate accommodation, the two small waiting-rooms being sometimes crowded with nearly 100 persons. Many other defects and inconveniences, which no amount of alteration bestowed on the present building could entirely have obviated, such as the absence of suitable space for the exercise of convalescents, of a room for religious service, and of a suitable dead-house, influenced the committee to the determination of which to-day has seen the partial realisation. The new Hospital will occupy a very advantageous site, and will cost, when completed, £35,000. It is to be constructed on the pavilion principle, and to include all modern sanitary arrangements which the test of experience has proved to be valuable. Of the whole sum about £25,000 have already been subscribed, no less than twelve gentlemen having contributed £1000 each. The ordinary accommodation will be for 200 in-patients. The building will present to Hill-street a handsome façade 300 feet in length, consisting of a centre connected by spacious corridors, with a block at either end. The central portion will contain the administrative department, with the operating theatre, chapel, board-room, waiting- and examination-rooms; while each of the end blocks will contain a large and a small ward, nurses' rooms, baths, lifts to each floor for the accommodation of patients, as well as other necessary arrangements.

The site of the building was very tastefully and conveniently fitted up for the ceremony of laying the stone, which was witnessed by an unusually large assemblage. The M.P.'s for the county and borough, the bishop of the diocese and other ecclesiastical dignitaries, the Mayor, and several other gentlemen were immediately about the Earl, who was accompanied by his Countess, Lady Constance Stanley, the Hon. F. Stanley, M.P., and lady, and Colonel and Miss Wilbraham. By means of a very handsome trowel of silver and parcel gilt, the manufacture of Elkington and Co., the veteran statesman smoothed the cement over the block of white sandstone, on which the first stone, of a similar structure, was to be laid; and then, on the latter being lowered and levelled with a few blows from a polished mallet, completed the ceremony. He then addressed those present in a short but eloquent speech; after which, and on a vote of thanks having been moved by Mr. C. Turner, M.P., and seconded by Mr. Horsfall, M.P., the party left. They then proceeded to make an inspection of the present Hospital, and were subsequently entertained by the Mayor at the Town Hall.

NEWCASTLE-ON-TYNE AND SUNDERLAND.

October 22.

Since my last communication, Medical affairs in the North have been progressing in their usually quiet manner. In Newcastle, few events have occurred calling for any special remark.

The meetings of the North of England Obstetrical Society, which are held during the summer months, were very successful. At one of the meetings, Dr. Matthews Duncan, of Edinburgh, was present, and read a very interesting paper on the muscular power of the uterus as estimated in pounds, etc. There was a large attendance of members and friends, and a cordial vote of thanks was accorded to Dr. Duncan for his paper. The annual meeting of the Northumberland and Durham Medical Society was held last month, when Dr. Gibb was re-elected President. The report of the proceedings of the Society for the past year was not so satisfactory as those of former years; for notwithstanding that the number of members has kept gradually increasing, the character of the papers read has not been up to the usual standard. It is much to be deplored that so few Medical men in the North will devote a little time to the writing of papers on cases of interest occurring in their practice. It cannot be from want of material, as every Practitioner must occasionally meet with a case the mere history of which would excite the interest of his fellows, and give rise to lively discussion.

When I last wrote, the fair sex in Sunderland were hard at work, preparing for the grand bazaar announced to be held in aid of the building funds of the new Infirmary, and most satisfactory was the result of this their labour of love, the handsome sum of £2100 being realised after all expenses were paid. This result was very remarkable, considering the very depressed state the town had been in for some months, owing to the stagnation in the shipbuilding and iron trades. The new Infirmary is now nearly completed, and will be ready to be occupied in the course of a month or six weeks. It is to be hoped that as little time as possible will be lost in entering the new building, the old Hospital being quite inadequate to the requirements of the town, and at present scarcely in a fit state to put patients in. The Dispensary is to be placed in the centre of the town, but up to the present time no site has been selected. The Medical and Surgical staff will

remain the same, the officers attending the Dispensary in rotation. While speaking of the staff, I must not forget to mention the loss sustained by the Infirmary by the death of William Dixon, Esq., J.P., one of the honorary Surgeons, an office he had filled with great ability for upwards of thirty years. Probably there was no one in the town who took so deep an interest in the welfare of the institution as he did. He was also the originator of the new Hospital, and took a most active part a few years since in getting up the Polytechnic Exhibition, etc., in aid of the Building Fund; and although he has not been spared to see the new edifice completed, he had the satisfaction of knowing that his cherished hopes were about to be realised in the erection of an Hospital which would be a credit to Sunderland, a great boon to his poor fellow-townsmen, and a charity with which his own name would always be associated as its prime originator. The vacant Surgeoncy, caused by Mr. Dixon's death, has been filled up by the election of Mr. E. Allan Maling, the Senior Assistant-Surgeon, and Mr. Barron has been appointed to fill the vacancy caused by Mr. Maling's promotion. The duties of the House-Surgeon, who, besides having the general superintendence of the house, has to visit at their own homes those out-patients who are unable to attend personally at the Dispensary, have become so heavy within the last year or two, that it has been deemed necessary to appoint a qualified assistant to the House-Surgeon, and Mr. T. R. V. Woodifield has been appointed to that office; and it is anticipated that the Dispensary work will now be carried on in a very efficient and satisfactory manner.

The annual meeting of the Medico-Chirurgical Society was held on the 24th inst., and from the report read by the Secretary it appears that the Society is in a very healthy condition; and although only established about three years ago, it now numbers between forty and fifty members, including several of the leading Medical men in Newcastle and Shields. Mr. John Davis was elected President; Mr. Barron, Dr. Evans, Dr. Nattrass, and Dr. Yeld, Vice-Presidents; and Dr. W. H. Dixon was elected Honorary Secretary and Treasurer in the room of Dr. Yeld, who had held that office since the formation of the Society. It is intended to open the new session with a dinner and an inaugural address from the President; and, to encourage the writing of original essays by members of the Society, it is to be proposed at the next monthly meeting—"That a gold medal of the value of five guineas be awarded each session to the author of the best paper on a given subject to be selected by the Society." Should this resolution be adopted, it will doubtless induce many of the members to enter the literary ranks, and to strive by honest rivalry to win the golden prize; and all that can be said is *palmam qui meruit ferat*.

GENERAL CORRESPONDENCE.

TREATMENT OF A "BLOOD CYST IN THE THYROID BODY."

LETTER FROM MR. SPENCER WATSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your report of the opening meeting of the Pathological Society, Mr. Curling is represented as saying that my case of blood cyst of the thyroid body "would probably get well of its own accord."

Now, I certainly did not understand Mr. Curling to give such an opinion, which would, in fact, be saying that the treatment I had adopted was altogether unnecessary, if not mischievous. I understood Mr. Curling to say that *some* cysts of the thyroid would occasionally shrink after tapping simply, without the use of injections; but, at the same time, he mentioned a case in his own practice in which he had injected the cyst with solution of iodine. As, however, the supposed opinion stated by Mr. Curling in your report would give the impression that I had treated my patient by an unusually and unnecessarily severe method, I would ask your permission to be allowed to show that, from the facts of the case, I could not have expected the cyst to contract after a mere puncture. The first cyst was on the point of giving way, from the extreme tension of the walls, which had sloughed at one part, and a piece of skin and the cyst wall, of the size of a shilling, separated after the puncture, and it was from this aperture that the bleeding took place. So that even if I had been inclined to allow the puncture I had made to close, there would have been no possibility of getting the cyst to close without the use of some form of irritant, either in the shape of injections, or plugs, or setons. The astringent injections seemed to me best adapted to the peculiarity of the case, and I chose a rather weak injection (one part of tinct. ferri mur. to eight parts of water) in preference to stronger ones, in order that the blood clots formed by it might be washed away by the current, and so the walls of the cyst and its vascular lining might be more immediately affected by its action.

The result proved the advantage of this plan in the case of this large cyst with the large opening; but the case of the second cyst was somewhat different. Here simple tapping without injection was first tried several times, and the cyst filled each time and showed no sign of diminution, though the puncture was allowed to close and the case was allowed (for six weeks at least) every chance of "getting well of its own accord." In consequence, however, of the patient herself expressing dissatisfaction at the slow progress of her case, or, rather, at its progress in the wrong direction, I adopted the injection plan; but here, having no large opening to allow of the escape of clots, the aperture very soon became occluded, and I, therefore, after trying the injections for several weeks without getting any visible alteration in the discharge, passed the seton. I was aware that setons in this region are considered somewhat dangerous, but I imagine that the cases which have been unfortunate after the use of a seton have been cases of aneurism by anastomosis of the thyroid, in which one or two coils of a vessel have become much enlarged and separated from the rest of the growth by a newly formed and easily destroyed cicatricial septum. In such a case it is easy to see how broken-down blood clots and pus may find their way into the circulation and lead to pyæmia and death. But the appearance and previous history of this cyst was against the supposition that the growth was at all of the nævoid character, and in favour of its being merely a cystic enlargement of the gland-follicles of the thyroid body, and hence it seemed less hazardous to employ the seton than it would at first sight have appeared.

As therapeutics are considered somewhat out of order at the Pathological Society, I did not think it right to enter into these questions very carefully when relating the case on the evening of the meeting, but I trust you will consider these few remarks sufficiently important, under the circumstances, to warrant my trespassing on your valuable space.

I am, &c. W. SPENCER WATSON.

27, Montague-street, W.C., October 23.

CRIMINAL INSANITY.

LETTER FROM DR. W. WOOD.

[To the Editor of the Medical Times and Gazette.]

SIR,—The object of my former letter on this question, raised by the case of the convict Bordier, was specially to point out that there was a precedent for the view which had been advocated, and that it was not a new theory which maintained the connexion between fistula and an unsound state of mind. The fact that Mr. Mitchell Henry and Mr. Gowlland had independently recorded their observations of this fact seemed to me worthy of serious attention, because their Professional position and reputation was such as to discourage the idea that they looked on these cases from what is supposed to be peculiarly the "mad doctor's" point of view. I will not intrude on your space further to argue the question of Bordier's irresponsibility, which, by the way, I have not maintained, because I believe the great majority of insane persons are, in a certain sense, responsible. I would only suggest that it must surely be a matter of some doubt how far the mind of a person, whose character, manner, and conduct have, under the influence of a chronic painful and debilitating disease, become entirely changed, may have suffered, and whether we are justified in saying positively that if at all it has suffered so little as not in any degree to affect his responsibility. There are bodily conditions which we admit do so far affect the responsibility of individuals as to qualify their responsibility, even in the eye of the law—for instance, the puerperal state; and this seems to justify the conclusion, which has been arrived at by the positive observation of most able and unbiassed witnesses, that there are bodily conditions which seriously compromise the mental powers. The point, however, which is still more important is whether or not our present knowledge enables us to uphold the *dictum* that a

person must be held responsible, whatever the degree of mental disturbance under which he labours, if it can be made to appear that he understands the difference between right and wrong. I think every one who has had the charge of insane persons owes it to society to assist as far as he can to dispel this grievous error, because it argues positive ignorance of incontestable facts. This is no matter of opinion; it is the unanimous conviction of every Medical man who has had anything to do with the insane that the vast majority know the difference between right and wrong, and it is the possession of this knowledge, and the consequent responsibility which it involves, which enables us to treat them as rational beings, and to exercise necessary control without recourse to those repressive means which were believed to be essential when insane persons were looked upon as necessarily irrational and irresponsible.

I am, &c.

99, Harley-street, October 21. W. Wood.

HEAD IN THE SECOND POSITION.

Letter from Dr. Downie.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reading Dr. Barnes's excellent lectures now being published in the *Medical Times and Gazette*, certain parts have arrested my attention as I went along, and more particularly that paragraph in connexion with the head in the second position, which, from Dr. Barnes's great experience, I have no doubt he is able still further to elucidate if his attention were only called to it. I will not quote the paragraph *in extenso*, but will refer the reader to the *Medical Times and Gazette* for August 24, p. 196. Dr. Barnes, then, as well as myself, must have been called to cases where the head was in the second position—that is, where an ear could be felt behind the pubis, where the patient's strength had become worn out, and where the pains were either absent altogether or were so feeble as to afford us little or no assistance, and where even ergot had ceased to stimulate. Now, under these conditions, is it still not necessary to feel an ear before we apply the forceps? Have we merely to introduce the blades within each ilium and then to make extraction, or must we, in addition to extraction, rotate the head so as to cause it to make its screw-like turn? And if we require to do this, how do we know which way to rotate the head unless the position of the head has been previously accurately diagnosed? And how can we accurately diagnose that position unless we have first carefully felt an ear? I do not know what Dr. Barnes's experience is in these cases, but I feel convinced that, in one case in particular, I never could have delivered unless I had first accurately diagnosed the case by feeling the pubic ear, and even then I had great difficulty.

It will here be observed that I am not discussing the propriety of applying the forceps over the ears or over the brow when the head is in the second position. I have applied them both ways, and I do not think it matters much, so long as we go about our duty with due caution. Nor do I think it necessary to feel an ear before applying the forceps, so long as the pains are good and efficient, because by relieving the head a little by compression and leverage, and by watching the handles of the forceps closely, we shall soon see to which side or direction the face inclines to turn, and we have only to follow it, or at most to give it a slight impetus by turning the handles inwards or outwards, as the case may be. Permit me to compliment Dr. Barnes on the philosophic way he has met Dr. Beatty by assuring him that he will try his straight forceps again; I have no doubt but Dr. Beatty will meet Dr. Barnes in the same spirit. Dr. Beatty will also be pleased to hear that all Scotsmen do not approve of the double-curved forceps; for I was in the act of penning a few objections when his excellent article appeared, and, as mine may not now see the light of day, I may be permitted to state that I have used the straight forceps sixteen times—twice in primiparæ when the head was above the brim, twice in primiparæ during convulsions, and twelve times under other conditions. All the mothers and all the children were saved. Laceration of the perinæum occured in one case, a primipara, but not to any extent, not certainly down to the anus, as I have had in some cases without forceps. The forceps I use are 13¾ inches in length, handles 5½, blades 8½, greatest width between blades 2⅝—rather too little space; they therefore require to be used with caution. And they have also another defect—the points of the blades approach to within ¾ inch. Yet with these defects I have never injured either child or mother—barring the slight laceration of the perinæum. So much for the straight forceps.

I am, &c.

Blantyre, September 28. Thomas Downie, M.D.

P.S.—The primiparæ who had convulsions were sisters, and there was about two months between their labours. One of them, a strong young woman, had coma for upwards of eight hours, was bled twice, leeched, etc. The other rolled about most fearfully, yet this did not prevent me using the straight forceps.

WHAT IS INSANITY?

Letter from Mr. T. Stokes.

[To the Editor of the Medical Times and Gazette.]

Sir,—A difficult question to answer, since learned psychologists and eminent Doctors cannot agree, and are obliged in consequence to give way to the more impartial and probably correct views of the lawyers and the public. Can the public be ordinarily mistaken in judging of the question? In the social surroundings of us all, habits, character, talent, weakness of mind, eccentricity, and all degrees of departure from sanity are noticed. Bordier's case you have so well placed before us, and so accurately weighed in the scale of justice and sound judgment, that I can scarcely believe that any but a very small fraction of the Profession will demur to the verdict. Entrusted as we are with certification as passport to the asylum, we must rely much on the friends and neighbours of the insane for information, and there is a difficulty in this which I am not aware is yet legally provided for. You may visit a person at times and find nothing irrational to report; but the individual is well known occasionally to break out into paroxysms of violence dangerous to himself and others. The evidence of this on oath before a magistrate ought to be sufficient; as it is, the Medical certifiers must believe the parties and take the onus on themselves. While discussing this subject, it is not irrelevant to allude to the common drinking habits of the working classes as the great cause of immorality, quarrel, violence, and murder. The mind under this habit, by which the functions of the brain are disturbed, becomes irritable, irrational, perverse, and dreamy. The man who accuses his wife and family of all manner of things in drink will forget all about it when sober. To a certain extent there is insanity in this, but, if crime from it happen, it would be aiding and abetting drunkenness and villany to let the offender escape on such a plea. When a person knows what he does, taking care to secure himself from observation, and artfully arranges his plan to do injury or murder, is not that a test of sanity concerning the doing of the deed? and ought not that individual to be held a responsible agent? I beg leave to mention two cases in my remembrance, both trials terminating in acquittal. A gentleman homicidal pounces out upon an unoffending servant girl and cuts her throat, and then retreats to his ambuscade. Rational in other matters—but monomania is pleaded, and is successful. I contend he knew well what he did from the mauner of doing it. Had he contemplated being hanged or receiving a severe whipping, would he have done it? The other case was that of a foolhardy fellow, who took a fancy to a fellow-servant in a farmhouse, and, because she did not listen to his overtures of love-making, he most artfully decoyed her out into the fields and killed her. He is considered on the trial a lunatic. But did he not well know what he did, and was he not responsible? Let me now ask, What can he done as a preventive to the criminal acts arising from drink? The three professions have done very little, and nothing effectual can be done apparently but by compulsion. Why should not the habitual drunkard be provided for, like the lunatic and madman? Send him to a special establishment for a probationary term. Should he break out again, send him again as often as he does. Such a man frequently admits he cannot resist temptation, and would be glad if he could. Is he not, then, a subject for the paternal care of the law with the lunatic?

I am, &c.

Nailsworth, October 14. Thomas Stokes.

The Sydney Infirmary.—This institution has just been presented with the handsome sum of £1000 by Mr. Thomas Walker, of Concord.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 21.

Mr. V. DE MERIC in the Chair.

THIRTEEN new Fellows having been proposed,

The PRESIDENT then brought before the Society a specimen of the parts removed by amputation of the leg from a lady who had, about twelve months since, sustained a compound fracture of the ankle-joint, accompanied with most extensive laceration of the skin. In the course of treatment, bony anchylosis in a most awkward position had occurred, and a large portion of the skin had not been replaced. The leg was rendered quite useless, and he had amputated it below the knee.

Mr. HENRY SMITH, the President, read a paper

ON THE RESULTS OF EXCISION OF THE KNEE-JOINT AT KING'S COLLEGE HOSPITAL DURING THE LAST YEAR, COMMENCING OCTOBER 1, 1866.

He commenced his paper by referring to the history of the operation in this country, and to the effect which the visit of the late Mr. Jones to the Society fifteen years ago with two patients on whom he had operated had exercised upon many of those who were discussing the propriety of excision of the knee-joint at that time. It was not his intention to enter into any particular discussion as to whether the operation was a proper one or not, as that point had long ago been solved, but he was anxious to give the Society the experience of a number of cases which had occurred to the several Surgeons in King's College Hospital during a given period, and without any selection or discrimination. This would, he thought, be a fair way of coming to some sound conclusion as to the nature and value of the operation in particular instances. Before doing this, however, he could not help criticising severely the views of Dr. Kirkpatrick, of Dublin, who, in a paper recently published, opposed excision of the knee-joint, but recommended in the very early stage of joint disease a process of cutting and cauterising which seemed hardly to be warranted. During the last year, commencing from October 1, there had been fourteen operations of excision of the knee-joint by Mr. Smith and his colleagues at King's College Hospital, in various conditions of disease. The results had been, as regards mortality, only two fatal cases out of the fourteen. Mr. Smith gave brief details of each case. The two fatal cases were mentioned first; one was a young woman, the other a little girl, who died a few days after the operation from pyæmia, the most fertile source of death. The other cases detailed were instances of the operation for more or less extensive disease of the joint combined with deformity. In one case Mr. Smith had performed the operation twice on the same patient, a boy, with an excellent result. In another instance the patient had been strongly urged by the Surgeon of another Hospital to undergo amputation of the thigh, but by excision a good result was produced. Two instances also of most extensive deformity combined with disease were detailed, and casts of the limb both prior and subsequent to the operation were shown. Three of the patients on whom the operation had been done by the author were exhibited to the Society. The author concluded his paper by stating that he trusted he had shown that the operation of excision was not such a fatal operation as it had been represented; and he called attention to the absence of shock or other severe suffering after it; and he wished especially to call to mind that in not one single case was the operation done for deformity alone.

Mr. BRYANT, after thanking Mr. Henry Smith for his interesting paper, remarked that there was still some doubt as to the propriety of performing the operation at all; but the great question to decide was the selection of proper cases. The patients that had been exhibited showed very satisfactory results, and he was glad of the opportunity of seeing them. He would, however, like to see them a year hence. There were many cases on record of alleged cures after excision, and in many of these cases re-excision or amputation had subsequently been performed. Such results were not favourable to excision. It sometimes happens after amputation that we have to remove a conical stump, but this very rarely occurs. In excision the Surgeon does not take away the joint; he removes a mere disorganised tissue. Mr. Bryant had lost no opportunity of examining parts removed, and of the pathological specimens he had seen there were many in which he would have been very sorry to perform excision. He did not doubt Mr. Smith's practice in the cases brought before the Society, but he very much doubted the propriety of performing the operation in those cases which would get well if left to nature. Mr. Bryant asked Mr. Smith what were the statistics generally of mortality after excision.

Mr. WILLIAM ADAMS said that he had for some time opposed excision in children, but his views had become very much modified. He spoke of the simplicity of the operation, as not involving large vessels or nerves. He had had two cases, with very good results, but he had seen others in which the limb was four or five inches shorter after the operation.

Dr. ALTHAUS remarked that when he was in Jersey he ascertained that many of the cases occurring in Mr. Jones's practice turned out most unfavourably. Mr. Jones has often operated against the wish of his colleagues.

Mr. FRANCIS MASON said that Mr. Smith had not selected his cases, but had brought before the Society the results of fourteen consecutive cases. This was fair enough. Mr. Mason believed in the operation of excision in proper cases, and thought the patients exhibited were a sufficient evidence of its value.

Mr. ROGERS-HARRISON thought that one of the cases he had seen would some day require re-excision or amputation.

After a few observations from Mr. Trevor and Dr. Kemphorne in favour of excision,

The AUTHOR replied. He said he was much gratified with the discussion: he would bring as many patients as he could in a year's time to the Society, so that Mr. Bryant, Mr. Rogers-Harrison, and others might have the opportunity of judging for themselves. Had he picked the successful cases, then he might, indeed, have astonished many of the gentlemen present; but, as Mr. Mason had observed, he had simply given them the results of twelve months' experience, and had taken fourteen consecutive cases. In reply to Mr. Bryant, he said that the statistics of mortality were fully published in Mr. Price's work. Respecting Dr. Althaus's remarks, he said he knew for a fact that Mr. Jones, of Jersey, had had only one death out of fifteen. It was true that some of Mr. Jones's cases were not attended with the most satisfactory results, but in many the limbs were very useful.

The next meeting was then announced for Monday, November 4, when Mr. Spencer Watson will read a paper "On some Obscure Surgical Diseases of the Face."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 25, 1867.

Mr. SOLLY, President, in the Chair.

A paper, by Mr. T. SPENCER WELLS, was read, entitled

A THIRD AND FOURTH SERIES OF 50 CASES OF OVARIOTOMY; WITH REMARKS ON THE SITUATION AND LENGTH OF THE INCISION REQUIRED IN THIS OPERATION.

The first and second series of 50 cases of ovariotomy performed by the author having appeared in the 46th and 48th volumes of the *Transactions*, the third and fourth series of 50 cases are now brought before the Society in the same tabular form, and some general observations on the 200 cases are appended. Increasing experience has been followed by diminishing mortality. Of the first 100 cases 66 recovered and 34 died; of the second hundred 72 recovered and 28 died. The mortality in the 200 cases was 31 per cent. *Age:* Below the age of 20 and between 40 and 50, the mortality has been less than between 20 and 40 or above 50. *Conjugal Condition:* The mortality among married women and widows has been 35·23 per cent.; among unmarried women, 26·31 per cent. *Social Condition:* Of the 200 cases 89 were Hospital, and 111 private. The mortality has been nearly identical in the two classes—namely, 30·4 and 30·6. *Situation and Length of the Incision:* In 163 cases the incision did not exceed six inches in length. The mortality in these cases was 28·83 per cent. In 37 cases the incision was larger than six inches. Here the mortality was 40·54 per cent. Thus the mortality has been considerably greater in long than in short incisions, but it appears to have been of little consequence if the incision has been six, five, or four inches, or less. In all cases the *linea alba* has been selected as the site for the incision. The author quotes cases where other situations have been selected, and shows by diagrams the structures divided at each situation.

A paper, by Dr. H. Charlton Bastian, was read on

A CASE OF CONCUSSION: LESION OF THE SPINAL CORD WITH EXTENSIVE SECONDARY DEGENERATIONS, FOLLOWED BY GENERAL MUSCULAR ATROPHY.

This is a case of much interest, not only on account of the extensive primary lesions discovered in the spinal cord (which were produced without fracture or displacement of vertebræ, from a mere concussion, not more severe than might be experienced in a railway accident), but also from the fact that extensive degenerations throughout the spinal cord, occasioned by these lesions, entirely escaped observation at a carefully conducted post-mortem examination. It is also of much interest because "secondary degenerations" following undue pressure upon, or rupture of portions of, the spinal cord, though first carefully described in 1851 by Türck, of Vienna, have hitherto, notwithstanding their importance, attracted little or no attention in this country. They afford a most valuable means of tracing the distribution of nerve fibres in the spinal cord and higher nerve centres, whilst an attentive study of the histological changes by which they are brought about not only shows the close relationship existing between these degenerative processes and those which occur in the various kinds of cerebral and spinal *ramollissement*, but goes far to demonstrate the non-inflammatory nature of the latter changes, concerning which there has always been so much dispute. The man on whom these observations have been made was a labourer, 26 years of age, who, whilst asleep, rolled off the top of a hayrick, and fell through a distance of 25 feet to the ground. He was at once found to have lost all voluntary power in both lower extremities and in the right arm. After a week he was admitted into St. Mary's Hospital, when the same limbs were found to be almost completely paralysed, though sensation in these and other parts was unaffected. The respiration was for the most part diaphragmatic. After the second month the right forearm and hand gradually became more and more rigidly flexed, and although formerly moderately stout, he gradually lost flesh, in spite of a most nourishing diet. At the time of his death, nearly six months after the accident, he had wasted almost to a skeleton. The paralysis underwent but little variation. Although no changes could be detected by the naked eye in the spinal cord when it was in its fresh condition, these could be detected with the greatest ease after it had been immersed for a week or two in a dilute solution of chromic acid, owing to the fact that the areas of degeneration which appeared on a freshly cut surface of the cord retained their natural white colour, whilst the surrounding healthy nerve tissue had been stained in the usual manner, and exhibited a yellowish-brown tint. After making a number of sections through all parts of the cord, it was found that the original lesions produced by the violent concussion of the fall were situated in the upper part of the cervical enlargement, and consisted of three distinct ruptures through the grey matter of the right side in different directions. In one small part only of the cervical enlargement was there any loss of symmetry in the two halves of the cord, and this was produced from a shrinking and collapse of its right half at the level of the most extensive rupture. Below these original lesions areas of degeneration gradually diminishing in extent were traced throughout the dorsal region of the cord, and on as far as the commencement of the lower third of the lumbar enlargement. They occupied the inner part of each anterior column and the posterior part of each lateral column, though in this latter situation the degeneration was much more marked on the right than on the left side. Below the primary lesions the posterior columns were healthy, but above them certain ascending degenerations occupying definite areas could be traced with the greatest distinctness. These gradually diminished upwards through the medulla oblongata, and finally disappeared in the floor of the fourth ventricle and the corpora restiformia. The direction taken by the areas of degeneration affords a pathological confirmation of the views of anatomists concerning the distribution of important fasciculi of nerve-fibres in the spinal cord and medulla oblongata. The columns of degenerated tissue have been brought about by the following changes:—1. Nutritive death and subsequent degeneration of nerve-fibres throughout their whole extent beyond the seats of rupture, the degeneration passing through various stages until complete molecular disintegration of the myeline has been produced. 2. The presence of such a large quantity of nerve-matter in a state of retrograde metamorphosis leads to the so-called "atheromatous condition" of the smaller vessels, and also to the fatty degeneration and repletion of some of the connective-tissue cells between the nerve-fibres, so as to produce the well-known "granulation corpuscles;" whilst, lastly, coincidently with these changes, and even after they have ceased, there goes on a hypertrophy or overgrowth of the normal connective tissue lying between the wasted nerve-fibres. This hypertrophy may perhaps be explained in great part by the fact that much more nutritive matter is placed at the disposal of these elements, seeing that the nerve-fibres which form such a large proportion of the bulk of the part are dead, and no longer assimilate pabulum from the blood, whilst no appreciable alteration in the vascular supply has been brought about. The axis-cylinders of the nerves undergo comparatively little alteration even after long periods. The steps of this process are almost identical with those taking place in softening of the brain or spinal cord; only in the latter case the changes are brought about more quickly, and the initial stage is generally due to some defect in the vascular supply to the part. In connexion with the general muscular atrophy it is interesting to bear in mind that in addition to the disease of the spinal cord there was found in this case a decided atrophy of the great semilunar ganglia of the sympathetic system, and an indication also, by microscopical examination, of a fatty metamorphosis of these parts. These were the only portions of the sympathetic system examined. Many French and German pathologists now believe that progressive muscular atrophy is due to a primary disease of the sympathetic ganglia. The length of time that the patient survived is worthy of note, seeing that his respiration was said to be diaphragmatic from the first. There are anatomical reasons, however, for believing that it was not wholly so. Some observations are made concerning the symptoms presented during life—such as startings and pains in paralysed limbs, and the condition of *contracture* which supervened after the second month in the right upper extremity; whilst, lastly, as regards the prognosis even in severe cases of secondary degeneration of the spinal cord, five or six instances are cited in which cures have been brought about.

NEW BOOKS, WITH SHORT CRITIQUES.

The Social Gospel. By B. J. Michael. First English Edition. London: Trübner. Pp. 290.

*** The author proposes to extinguish moral and physical evil on the earth by a gigantic plan of operations, beginning with a universal mortgage of all property, real and personal, to the State, and employing the money so raised in commercial enterprise on the most vast scale, and in a scheme of universal conquest. We wonder whether the author ever conceived doubts of his own capacity for framing so gigantic a scheme. Certainly there is little new in the idea of paying debts by borrowing money.

Illustrations of some of the Principal Diseases of the Eye. By Henry Power, F.R.C.S., Surgeon to the Royal Westminster Ophthalmic Hospital, etc. London: John Churchill and Sons. Pp. 631.

*** A general treatise on diseases of the eye, with a dozen chromo-lithographs illustrative of some of the principal maladies incidental to the optical organs; but, as Mr. Power himself remarks, the process, except carried out in a most expensive manner, is not calculated to indicate the minute varieties in shade and colour requisite in such figures. We all the more regret this, as Mr. Power's accuracy and discrimination are so well known.

Rodent Cancer: its Nature and Treatment. By C. H. Moore, F.R.C.S., Surgeon to the Middlesex Hospital, etc. London: Longmans. Pp. 128.

*** Mr. Moore, whose researches into cancer are so well known, has devoted the present essay to the consideration of that spreading sore occasionally encountered in old people, which devours everything it encounters, and never presents a trace of healing. He draws distinctions between it and lupus, epithelioma, and syphilitic sores, and points out that its characters are such as to entitle it to be termed a cancer. In several instances Mr Moore has been successful in arresting the disease by the knife and caustics. The work is illustrated by photographs and woodcuts, and will well repay careful perusal.

A Practical Treatise on Eczema. By Dr. M'Call Anderson, Lecturer on Medicine, Anderson's University, Glasgow. Second Edition. London: John Churchill and Sons. Pp. 172.

*** The new edition of this valuable work is considerably enlarged, especially in its practical portions.

The Civil Service Geography. By the late L. M. D. Spence. London: Lockwood and Co. 1867.

*** This book tends to supply a want that has for some time been greatly felt by candidates for appointments in the Civil Service of this country. Mr. Dalrymple Spence had laboured in that service for many years, was well known as one of its most active members, and was particularly well acquainted with the kind of knowledge required for the preparation of a work such as that now before us. The plan of rough map-sketching is strongly recommended, and a series of outline maps are given as examples. This book has, since the author's death, been placed for revision and publication in the hands of Mr. Thomas Gray, one of the assistant-secretaries to the Board of Trade, and its completeness is greatly due to the energy and skill that he brought to bear on so important a subject.

NEW INVENTIONS.

A NEW CLASS AND DEMONSTRATING MICROSCOPE.

By HENRY LAWSON, M.D.,
Professor of Histology in St. Mary's Hospital.

THE accompanying woodcuts represent in its two positions a microscope which has been made for me by Mr. Collins, of Great Titchfield-street, and to which I desire to direct the attention of teachers in Medical schools. The instrument is especially designed to save expense by combining in one form two microscopes which have been hitherto distinct. In teaching microscopic anatomy to a class, say of forty men, if the microscopes employed be of the ordinary kind, it is necessary to bring the students down to the lecture table in order to show them the specimens. This is a most objectionable plan. The students hustle together and push each other, and practical jests often prevent a really earnest man from making careful observation of the tissue exhibited. Of course this difficulty may be obviated by using the excellent hand microscopes devised by Dr. Lionel Beale, which are passed from hand to hand and used like a telescope. But then Dr. Beale's microscopes can only be employed for the one purpose; they are essentially class microscopes. Hence teachers have been compelled to purchase two sets of microscopes—one for the histological laboratory, and the other for the class-room. My microscope obviates the double expenditure by combining the two forms in one instrument. In Fig. 1 it is seen as used in the laboratory. The leg is attached by a strong knuckle joint to a solid loaded foot of brass, and the body is provided with a nosepiece for the inch and quarter-inch objectives. Fig. 2 shows it as used in the lecture-room. The portion of the leg which bears the mirror and is attached to the foot in Fig. 1, is a firm tube in which slides a solid cylinder. From this tube the instrument as shown in Fig. 2 has been removed, the only addition being a small oil lamp, which has a sliding movement on the stem, and can thus be approximated to or made to recede from the stage. While the instrument was in process of construction I feared there would be difficulty in overcoming vibration of the stage, but in the microscopes which Mr. Collins has prepared for the histological laboratory at St. Mary's, this difficulty has been successfully overcome. It is intended that these microscopes shall be employed for demonstration during lectures, and that, the lecture over, they shall be used in the laboratory by the students who are engaged in the practical study of microscopical anatomy.

Fig. 1.

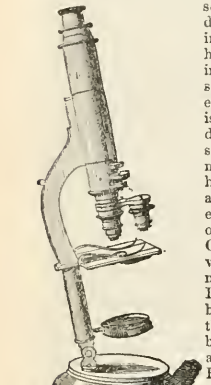
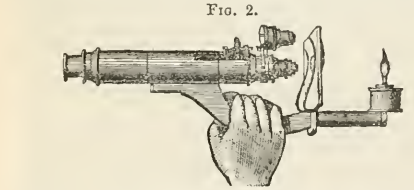


Fig. 2.



METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—The quarterly meeting of this Association will be held on Thursday, October 31, at 8 p.m., at the Ship Hotel, Charing-cross. Questions of great public interest will be brought before the meeting, more particularly in relation to the working of the Metropolitan Poor Act, 1867. All Poor-law Medical Officers, whether members or not, and honorary members, are earnestly invited to attend.

MEDICAL NEWS.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the recent sittings of the Examiners, the following gentlemen have obtained the double qualification granted conjointly with the Royal College of Physicians of Edinburgh:—

Joseph Callaghan, Newtown Limavady; James Chalmers, M.D., Glasgow; John Craig, Cramlington; James Irvine, Belfast; Alexander C. Moffat, Glasgow; Thomas Richmond, Glasgow; James Somerville, Glasgow.

The following have obtained the Diploma of the Faculty:—

John P. Bradley, Dudley; George Clapperton, L.S.A., Bolton; Joseph Fosters, Princes Risborough; Thomas Greenlees, Glasgow; John G Hurford, London; John Mackinlay, Burrhead; William H. Stock, Dublin; John F. W. Tatham, L.R.C.P. Edin., Murton, Durham; Arthur C. Walker, L.A.H., Irvinestown.

The following have passed the First Examination for the double qualification:—

Daniel F. Buckly, B.A., Cork; John E. Seowcroft, Bolton.

The following have passed the First Examination for the Diploma of the Faculty:—

Robert Buntine, Glasgow; John H. Coverly, Glasgow; Frederick A. Freer, Glasgow; George MacLean, London.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 17, 1867:—

Edward Cleaver Maxwell, 17, Cambridge-road, Hammersmith; Charles Nutt, Royal Hospital, Portsmouth; Robert Hullah, St. Thomas's Hospital

The following gentlemen also on the same day passed their First Examination:—

Alfred Stileman Bostock, St. Bartholomew's Hospital; James Ryall Roach, St. Bartholomew's Hospital; George William Smith, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARNISON, W. C., M.D., has been appointed to the Dispensary, Newcastle-on-Tyne.

RAWLINGS, J., M.R.C.S.E., has been appointed House-Surgeon to the Hartlepool Hospital and Dispensary.

REEVES, H. A., M.R.C.S.E, has been appointed Surgeon to the Westminster General Dispensary.

ROBINSON, CHARLES H., M.R.C.S.I., L.K.Q.C.P.I., L.M.C.P., has been appointed Demonstrator of Anatomy to the Ledwich School of Medicine.

TEVAN, R. L., L.K.Q.C.P.I., has been appointed Resident Surgeon to Steevens's Hospital, Dublin.

BIRTHS.

COLEMAN.—On October 20, at Holly Lodge, Streatham, the wife of A. Coleman, M.R.C.S., of a daughter.

DUDGEON.—On October 18, at 53, Montagu-square, the wife of R. E. Dudgeon, M.D., of a son.

TEALE.—On October 11, at 1, St. Nicholas-parade, Scarborough, the wife of J. W. Teale, F.R.C.S., of a daughter.

WARD.—On October 19, at the Poplars, Twickenham-common, the wife of M. C. Ward, M.D., of a son.

MARRIAGES.

CLARKE—COOKE.—On October 17, at St. James's, Piccadilly, A. Clarke, M.R.C.S.E., of Stock, Essex, to Harriette, youngest daughter of the late J. Cooke, Esq., of Livermere, Suffolk.

HUMBLE—WILLIAMS.—On August 19, at the English Church, Buenos Ayres, the Rev. Dr. G. A. Humble, M.D., M.R.C.P., Medical Missionary, Patagones, to Elizabeth Louisa, youngest daughter of the late Captain W. Williams, of Barmouth, North Wales. No cards.

MONTGOMERY—PARKINSON.—On October 17, at the British Legation, Brussels, E. C. Montgomery, L.R.C.S.I., of Maidenhead, Berks, to Dorothea Hester, third daughter of the late W. H. Parkinson, Esq., of Dublin, M.D., F.R.C.S.I. No cards.

PALATIANO—BEAUCLERK.—On October 19, at Christ Church, Virginia Water, G. Palatiano, M.D., to Isabella Julia, youngest daughter of the late Major Beauclerk, of St. Leonard's Lodge, Horsham, Sussex, and Ardglass Castle, Co. Down, Ireland.

PALMER—DAVIS.—On October 15, at St. James's Church, Hatcham, H. T. T. Palmer, M.R.C.S., of Woodstock, to Katherine Isabel, youngest daughter of the late A. Davis, Esq., of Deptford, and East Farleigh, Kent. No cards.

PLOMLEY—BUNTER.—On October 15, at Holy Trinity Church, Maidstone, Dr. J. F. Plomley, L.R.C.P., of Maidstone, to Clara Margaret, only daughter of G. B. Bunter, Esq., of Clarendon-place, Maidstone. No cards.

RHIND—BURNET.—On October 22, at the parish church, Hawkshead, J. Rhind, M.D., of Mirfield, to Sophia, youngest daughter of the Rev. Dr. Burnet, Vicar of Bradford, Yorks.

DEATHS.

BARTLETT, W., Surgeon, of Burbage, Wilts, on October 7, aged 86.
BAYER, C. F., M.D, at Adelaide, South Australia, on August 15, aged 52.
BIRKENHEAD, E. H., D Sc. Lond, Lecturer on Chemistry and Toxicology at the Liverpool Royal Infirmary School of Medicine, at Liverpool, on October 22.
FORD, B. B., M.R.C.S., Civil Surgeon, at Batasore, Bengal, on September 9, in his 20th year.
GRAY, T. S., Surgeon R N., at High-street, Gosport, on October 7, aged 75.
MILLER, J. S., Surgeon, at 20, Grange Lean, Edinburgh, on October 20.
WIGHTMAN, J., F.R.C.S.E., M.R.C.S.L., at York, on October 18.

VACANCIES.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—House-Surgeon and Apothecary.
DENTAL HOSPITAL OF LONDON.—Assistant Dental Surgeon.
DOVER HOSPITAL AND DISPENSARY.—Resident Medical Officer.
UNIVERSITY COLLEGE HOSPITAL.—Professor of Pathological Anatomy; Assistant-Physician.
WESTERN GENERAL DISPENSARY.—Physician in Ordinary.
YORK COUNTY HOSPITAL.—House-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Carnarvon Union.—Mr. Benjamin Jones has resigned the Llanidan District; area 14,168; population 3313; salary £35 per annum.
Llandilofawr Union.—Mr. R. P. Edwards has resigned the North District; salary £27 per annum.
Tiverton Union.—Mr. John H. Tuke has resigned the Thewerton District; area 7910; population 1810; salary £31 per annum.

APPOINTMENTS.

Barnsley Union.—William Stewart, M.R.C.S. Edin., L.R.C.P. Edin., to the Darton District.
Ludlow Union.—John R. Quick, L.F.P. and S. Glas., L.M., L.S.A., to the Leintwardine District.

ROYAL COLLEGE OF SURGEONS.—An important alteration in respect to the payment of fees by candidates for the diploma of Membership, both at the primary and pass examinations, is about to be promulgated. There is no doubt the Council of the College is fully justified in sanctioning the proposed alteration, for it is well known at all the Hospitals, and by every person engaged in teaching, that there is a certain class of students who will not go through their studies with any amount of steadiness, but when the time arrives for presenting themselves for the ordeal, and when urged to "go up," both by parents and teachers, "go in for a fluke," to use their own expressions, and are consequently "spun." It is notorious that there are students lounging about the Hospitals, who, had they paid ordinary attention to their studies, would have been Members of the College years ago, instead of which they have been so repeatedly rejected that, in self-defence, the Court of Examiners have adopted the following determination:—The fee of £5 5s. paid prior to the primary examination and allowed in the whole fee for the diploma, will be retained, and after any two consecutive failures at the primary examination the candidate will be required to pay an additional fee of five guineas prior to being again admitted to that examination, which further fee will also be retained. At the pass examination, heretofore, when a candidate has been rejected the whole amount—viz., £16 15s.—has been returned when requested by the candidate; but now five guineas will be retained, and after any two consecutive failures at the pass examination the candidate will be required to pay an additional fee of five guineas prior to being again admitted to the pass examination, and this fee will also be retained. A somewhat similar plan has long been adopted by other examining boards.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At a meeting of the College on the 16th instant, the following office-bearers were elected for the ensuing year:—*President:* James Spence. *Treasurer:* John Gairdner, M.D. *Librarian:* Archibald Inglis, M.D. *Secretary:* James Simson, M.D. *President's Council:* James S. Combe, M.D.; Andrew Wood, M.D.; James Dunsmure, M.D.; James D. Gillespie, M.D.; William Walker; Henry D. Littlejohn. *Ex-officio:* John Gairdner, M.D. *Examiners:* James Simson, M.D.; William Dumbreck, M.D.; Archibald Inglis, M.D.; Robert Omond, M.D.; James Dunsmure, M.D.; Peter D. Handyside, M.D.; James D. Gillespie, M.D.; H. D. Littlejohn, M.D.; Patrick H. Watson, M.D.; David Wilson, M.D.; John Smith, M.D.; D. M. C. L. Argyll Robertson, M.D. *Assessors to Examiners:* James S. Combe, M.D.; James Syme; William Brown; Adam Hunter, M.D. *Conservator of Museum:* William R. Sanders, M.D. *Officer:* John Di kie.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual meeting of the College, held on St. Luke's day (October 18), the following officers were elected for the ensuing year:—*President:* Dr. Churchill. *Vice-President:* Dr. Gordon. *Censors:* Dr. Gordon, Dr. Moore, Dr. Jennings, and Dr. Foot. *Treasurer:* Dr. Dwyer. *Registrar:* Dr. Atthill. *Representative on the Medical Council:* Dr. Aquilla Smith. *Examiners in Midwifery:* Dr. Johnston, and Dr. Ringland. *King's Professor in Midwifery:* Dr. E. B. Sinclair. *Professor of Medical Jurisprudence:* Dr. R. Travers.

ROYAL COLLEGE OF SURGEONS.—At the last meeting of the Council of this institution, it was resolved to purchase the admirable bust of the late Sir William Lawrence, Bart., executed by Mr. Henry Weekes, R.A., and exhibited by him at the Royal Academy last summer.

TRINITY COLLEGE, DUBLIN, AND THE BRITISH MEDICAL ASSOCIATION.—The visit of the British Medical Association was celebrated in Trinity College, Dublin, by the introduction of "Musical Graces" before and after the banquets at which the College entertained the Association. We have been favoured with a copy of the music and words used on the occasion. The former is by the Rev. J. P. Mahaffy, M.A., and R. P. Stewart, Mus. D. The words and music are creditable both to the orthodoxy and taste of the Fellows. We have no doubt that the compliment was duly appreciated by the Association.

THE Council of the St. Andrews Medical Graduates' Association met this week, for the purpose of making arrangements for the anniversary session to be held at Willis's Rooms on Monday and Tuesday, December 2 and 3. Reports and Papers will be read by Dr. Richardson, Dr. Day, Professor Lyon Playfair, C.B., Dr. Procter, Dr. Wynn Williams, Dr. Drysdale, Dr. Lloyd Roberts, Dr. Sedgwick, and others. The members and their friends dine together at Willis's Rooms in the evening of the 3rd. The franchise question is necessarily quiet at present, but the Council are preparing for an active campaign in anticipation of the meeting of Parliament. The Association numbers now 385 members.

THE LATE STAFF ASSISTANT-SURGEON HOGAN.—We regret to hear that Staff Assistant-Surgeon R. E. Hogan has been killed while travelling by railway in Canada. He had put his head out of the window of the carriage, and had come in collision with another carriage, which appears to have been stationary on another line of rails. The coroner's jury expressed the opinion that sufficient supervision had not been exercised "to see that the car was at a safe distance from the track." Mr. Hogan was the second son of the sculptor of that name, and entered the service so lately as March 31, 1865. He was much beloved by his brother officers and a large circle of friends. He was buried with military honours in St. Mary's Cathedral, Halifax. The Roman Catholic Archbishop of the diocese officiated.

THE number of eggs consumed at the London Hospital from October, 1864, to September, 1867, is 245,898.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** Dr. Richardson's lecture on the new anæsthetic, the bichloride of methylene, will be concluded in our next number.

Anti-Humbug.—We observe an invariable rule not to insert communications unauthenticated with the writer's name.

Cuique Suum.—The conduct of the editor of the journal in the question alluded to may fairly be criticised, but we cannot publish the letter unless the writer appends his name.

E. P.—"Birds of a feather" supply one proverb applicable to the case: and "if the devil wants to roast a nigger, he can always get another nigger to turn the spit."

O., Taunton.—Consult Mr. Cordy Jeaffreson's book about Doctors. Dr. Bond was a Wykehamite, and only began Physic after the middle of life.

Smoke.—This is now made a general nuisance by the *Sanitary Act*, 1866; heretofore the police only could deal with it. Apply to the Medical Officer of Health of your parish.

S. P.—Pritchard is most to be relied upon, and modern researches may modify, but do not set aside, his conclusions. To prove the modern English peasantry to be of Celtic origin requires further evidence than has yet been brought forward.

Tyro.—Mere relaxation will produce the symptoms complained of. A cold hip-bath with Tidman's sea-salt or alum will be an effectual remedy. Easy salivation generally denotes anæmia; possibly, but by no means of necessity, it may indicate disease of the kidneys.

Sanitas.—Dr. Barnes has resigned the appointment of Medical Officer of Health for Shoreditch, and Dr. Sanderson for Paddington. Write to the Registrar-General, Somerset-house, W.C.

Shop.—Messrs. Savory and Moore, 143, New Bond-street, will give you a little card of the comparative strength of some of the preparations of the British Pharmacopœia, 1867, and of the London Pharmacopœia.

Constant Reader.—Chavasse's "Advice to a Mother on the Management of her Children."

A Naval Surgeon.—The book is neither rare nor valuable, and there is a thorough tone of flunkeyism and quackery in the preface. Of the author, John Theobald, M.D., we have no certain information. It speaks volumes for the state of Physic in the reign of George II., so far as its scientific element is concerned. As for the practical or empirical side, the prescriptions are good enough, and many of them identical with those in use at the present day. The treatment of gonorrhœa (except in the recommendation of bleeding) is just what is carried on at the present day among the out-patients of Hospitals and Dispensaries—no salivation is prescribed in this disease, and this is more than might have been expected. Altogether, any one who meets with the *Medulla Medicinæ Universalis* may amuse himself for half an hour, and pick up some useful hints, but need not fancy that he has a bibliographical treasure.

Coventry.—A Dr. Bate lived at Coventry in the 17th century. His daughter married Mr. Keeling, Surgeon-Apothecary, of that town. Soon after her marriage she was affected with bronchocele, and applied to her father, who gave her a prescription which afforded a perfect cure. After this Mr. Keeling "quacked" the remedy, kept its composition secret, and sold so much as to make him a rich man. Thence the secret passed through Mr. Keeling's apprentice, named Lucas, to Mr. Brockhurst, and to Dr. Jones, who died about 1763. Burnt sponge was the essence of the remedy, but this was preceded by a vomit and purge the day after the full moon. The case of Mrs. Cluer, whose death has been ascribed to spontaneous combustion, is contained in the "Surgical Cases and Remarks of Mr. Wilmer, Surgeon, of Coventry" (London, Longman, 1779). The wonder is, how her flesh and viscera could be consumed without the fire doing more damage to the bedclothes.

A Metropolitan Teacher.—The returns from the provincial schools will not be ready for a week or two. The Hall License will exempt from another Medical examination.

A Pupil.—Early in the ensuing month. The regulation will not come into operation until October, 1868. It will be compulsory.

A Naval Surgeon.—No award of the Blane Medal has been made lately. The Admiralty and Colleges of Physicians and Surgeons, London.

Associate King's College.—The late Mr. M. G. Jones, of Jersey, excised the scapula in 1858. The patient was a girl of 15 or 16. The preparation is in the Museum of the College of Surgeons.

COMMUNICATIONS have been received from—

Mr. J. Robertson; Mr. R. V. Ash; Mr. Alfred Roberts; Mr. Plant; Mr. Stokes; Mr. Gant; An Old Subscriber; Mr. Haviland; In Vino Veritas; Dr. Rogers; Dr. Lyons; Dr. Yeld; Dr. Wood; Constant Reader; Mr. Harrison; Dr. Corfe; Dr. Jencken; Dr. Carter; Manchester Health Report; Mr. Martin Coates; Dr. Hughlings Jackson; Mr. Chatto; Mr. Iliffe; Mr. James Fowler; E. P.; A Naval Surgeon; O. Taunton; "Smoke"; S. P.; Tyro; Mr. A. Bruce; Dr. Moore; Mr. W. S. Watson; Coventry; Dr. Hewitt; Mr. Milner; Mr. Constable.

BOOKS RECEIVED—

Tanner's Pregnancy, Second Edition—Miller's Introductory Lecture—Michael's Social Gospel—Villemiu's Etudes sur la Tuberculose—Papillaud's Etudes sur les Médications Arsenicales—Fraser on the Calabar Bean—Sermon on the occasion of the Decease of John Propert—Smith on Ringworm—Reeve's Softening of the Stomach in Children—Dr. Chapman on Medical Patents—Harris's Dictionary.

NEWSPAPERS RECEIVED—

Printers' Journal—Carlisle Journal—The Age—Birmingham Daily Gazette—Medical Press and Circular—Scotsman—Birmingham Daily Post.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 19, 1867.

BIRTHS.

Births of Boys, 1082; Girls, 1089; Total, 2171.
Average of 10 corresponding weeks, 1857-66, 1839·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	710	622	1332
Average of the ten years 1857-66	596·2	568·0	1164·2
Average corrected to increased population ..	..	..	1280
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,888	1	6	5	..	9	6	6	..
North ..	618,210	5	6	17	4	1	11	10	..
Central	378,058	1	5	5	..	5	4	2	..
East ..	571,158	3	1	3	2	10	8	10	..
South ..	773,175	5	5	9	2	11	11	9	2
Total ..	2,803,989	15	23	39	8	36	40	37	2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·599 in.
Mean temperature	52·5
Highest point of thermometer	64·8
Lowest point of thermometer	39·6
Mean dew-point temperature	49·2
General direction of wind	S.W., S.S.W., & S.E.
Whole amount of rain in the week	0·72

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 19, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Oct. 19.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Oct. 19.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2171	1421	1332	64·8	39·6	52·5	0·72	73
Bristol (City) . .	165572	35·3	108	74	182	61·2	44·3	51·6	1·56	152
Birmingham (Boro')	343948	43·9	254	167	160	62·5	41·2	51·3	0·46	46
Liverpool (Borough)	492429	96·4	338	285	291	59·0	45·1	51·0	0·91	92
Manchester (City) .	362823	80·9	259	205	‡214	62·2	42·5	50·3	0·80	81
Salford (Borough) .	115013	22·2	68	58	66	62·6	39·3	50·5	0·77	78
Sheffield (Borough).	225199	9·9	164	119	116	58·7	41·0	49·2	0·40	40
Leeds (Borough) .	232428	10·8	243	118	123	62·5	33·5	48·7	0·28	28
Hull (Borough) .	100740	30·0	84	49	56	..	..	..	..	..
Newcastle-on-Tyne, do.	124966	23·4	74	66	70	59·0	42·0	50·8	0·56	57
Edinburgh (City) .	176081	39·8	131	85	72	53·7	42·0	50·4	0·60	61
Glasgow (City) .	449079	87·1	345	257	240	58·1	42·9	50·5	1·62	164
Dublin (City and suburbs) .	319210	32·8	148	§157	119	63·7	35·0	51·1	0·47	47
Total of 13 large Towns . . .	6187764	34·3	4387	3061	2941	64·8	33·5	50·7	0·76	77
	(1863)				Week ending Oct. 12.	Week ending Oct. 12.				
Vienna (City) .	560000	..	..	..	239	..	..	43·8	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·599 in. The barometrical reading increased from 29·43 in. on Sunday, October 13, to 29·77 in. on Wednesday, October 16. The general direction of the wind was S.W., S.S.W., and S.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 43·7°.

APPOINTMENTS FOR THE WEEK.

October 26. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

28. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

29. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

30. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

31. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

November 1. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 7½ p.m. Meeting of Council.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON BICHLORIDE OF METHYLENE AS A GENERAL ANÆSTHETIC.(a)

(Continued from page 424.)

Amongst the various substances which have come before us in what has preceded, there are several other besides the Bichloride of Methylene which might fairly engage our attention; but as we have the Bichloride for special consideration, I shall diverge only, and that but for a moment, to refer to the Chloride of Methyl. The chloride of methyl exists in all ordinary temperatures as a permanent gas. As I have already said, it acts as an anæsthetic when given by inhalation. It is very soluble in ether, and when ether is saturated with it the compound fluid is one of the most perfect of anæsthetics. Unfortunately, this compound is not very stable, and therefore it is not so promising a fluid as could be wished. But I believe it to have no equal in the way of evenness of action. The sleep produced by it is rapid, gentle, profound, prolonged, and I found in an experiment, where I may say I forced the animal to die by increasing the quantity of the vapour, that the muscular irritability was perfect one hour and five minutes after death. I notice this fact because, if the more manageable and stable Bichloride of Methylene should prove unfaithful to experience and to our hopes, we have still this compound remaining for our practice.

One other fact is of interest in reference to the chloride of methyl: it is soluble in water, and water charged with it will take up four volumes. Chlor-methyl water properly prepared is here for your inspection, and I pass it round with a little sugar to render it palatable. You will find it rather agreeable to drink, and I may add that as a drink it is a potent intoxicator. I took half an ounce with a very decided effect, but the influence it exerts is of course very transitory. The fluid might be used with great advantage in medicine as a soothing agent, and as a cooler or refrigerator. At a push, this fluid could, I doubt not, be administered to the extent of producing general anæsthesia, and an operation might thus be painlessly performed after a libation instead of an inhalation. Altogether I predict for chloride of methyl a most useful and important place in our remedial treasury; but we will, if you please, now return to the bichloride of methylene, and its physical properties.

PHYSICAL PROPERTIES OF THE BICHLORIDE OF METHYLENE.

In studying the effects of any substance about to be employed as a general anæsthetic, it is of primary importance to become well conversant with all its physical properties. Then the research is not merely exact, but pleasant, satisfactory, and by comparison easy. It is true that the mere process of taking up a chemical body and subjecting animals to its action has often proved of great value to science and the world; but the plan is empirical, and in that sense too often fretful, wearisome, and delusive. This is the reason why therapeutical inquiry has been so slowly rewarded. Happily we are passing into a more direct and positive line of inquiry, even in therapeutics, and in time, as great principles are evolved, we shall, I cannot doubt, make this scientific branch as perfect as the more advanced and fixed of the sciences. Let us, then, before we move to an experiment with the bichloride of methylene, look at it in respect to its physical characteristics.

The Bichloride of Methylene is a colourless fluid, having an odour much like the odour of chloroform. It is pleasant to inhale as vapour, and it produces very little irritation of the fauces and air-passages. It boils at 88° Fahr. Its sp. gr. is 1·344. The sp. gr. of its vapour is 2·937; it is, therefore, nearly three times heavier than air.

That we may have before us all these facts, and that we may be able to compare and contrast the properties of bichloride of methylene with those of other anæsthetics, I have written a table which will explain itself:—

	Boiling point. Fahr.	Sp. Gr. Water 1(0).	Density of Vapour. Air 1.
Chloride of methyl . .	6°	—	1·745
Bichloride of methylene	88°	1·344	2·937
Terchloride of formyle—			
chloroform . . .	142°	1·495	4·122
Tetrachloride of carbon .	172°	1·599	5·321
Ether C_4H_5O . . .	92°	0·720	1·547
Amylene C_5H_{10} . .	95°	0·659	2·419

A glance at this table gives at once the physical positions, absolute and relative, of the bichloride. It boils at a lower point than any of the other anæsthetics—lower even than ether, and fifty-four degrees lower than chloroform. Its specific gravity, both as a liquid and a vapour, is lower than chloroform, but much higher than ether or amylene. From its position physically it combines many of the properties of chloroform with those of ether, and these peculiarities must be remembered in its administration. From its easier evaporation it requires more free administration than chloroform, and from its greater density of vapour it requires less in quantity than ether.

There is another physical difference between the Bichloride and chloroform to which I would particularly invite your observation. If I take chloroform and diffuse the vapour of it through air in a bell jar thus, I find, when a taper alight is plunged into the jar, that the light is extinguished—in other words, the combustion is stopped. On further inquiry, I also find that the chloroform itself, though it has stopped the combustion, has itself undergone no obvious chemical change. We say, therefore, that the chloroform has acted by a catalytic process: it has stopped oxidation by its mere presence without undergoing decomposition. I take next the bichloride of methylene, diffuse that in vapour through the jar, and plunge in the lighted taper. And now see the difference: the vapour burns in a brilliant flame, filling the jar. Here I have decomposed the substance; the carbon has been turned, by union with oxygen, into carbonic acid, and the hydrogen and the chlorine have been turned, by their new union, into hydrochloric acid. The proof of this latter fact concludes a singularly pretty experiment; I pour a few drops of strong ammonia into the jar in which the bichloride of methylene has been burned, and I produce a dense cloud of chloride of ammonium in white vapour which pours out of the jar like water. I have been careful in showing these experiments with chloroform and bichloride of methylene, and the different behaviours of the latter in the presence of flame, because the experiments bear on one of the most able and ingenious theories ever put forward to explain the action of anæsthetics on living organisms. Some of you will know that I refer to the theory of Dr. Snow. Snow, observing that the vapour of chloroform extinguished flame, as we have just seen, reasoned that, as it thus stopped the combustion of a taper, so by its catalytic action it stopped the combustion of blood, from which arrest all the after phenomena of anæsthesia took their origin. "I could demonstrate all the phenomena of anæsthesia on a farthing candle," was one of his striking epigrams. But here we have a true anæsthetic, which will burn readily, giving brisk combustion. This fact, in so far as it goes, is not in accordance with the theory of my late distinguished friend, and in pointing out the fact I do no more in correction than I should for a favoured theory of my own or than he would were he here to speak for himself.

The bichloride of methyl mixes readily and well with absolute ether, and as the two fluids have nearly the same boiling point—four degrees of temperature being the extreme of difference—when they are combined they form a compound which vaporises evenly and equally. The difference in the specific gravities of the two vapours is the only objection to the combination. The bichloride further combines with chloroform in all proportions.

One more physical matter in respect to the bichloride of methylene, and this part of the subject may be concluded. The fluid should have at all times a neutral reaction to test-paper. If it show any acidity, there is present a trace of hydrochloric acid, and the vapour, which under such circumstances would also contain the acid, would be irritating to the throat, and perhaps dangerous to life. The presence of acid in the fluid is not a very probable accident—not more probable than the presence of chlorine in chloroform—but it might occur, and it ought therefore to be known. To prevent

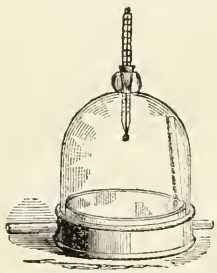
(a) Delivered on Tuesday, October 8, 1867.

decomposition, the bichloride of methylene should be kept, like chloroform, well guarded from the action of sunlight.

ON THE BICHLORIDE OF METHYLENE AS AN ANÆSTHETIC.

To learn the action of bichloride of methylene, let us proceed at once to experiment. For subjects I prefer to have pigeons in all researches with anæsthetics. Pigeons are readily managed; they express little preliminary excitement; their respiratory movements are very readily observed; they are quickly sensitive to pain when touched on the foot or leg; the condition of their eyes can be steadily observed; and they are as susceptible as the human subject, or even more susceptible, to agents which produce vomiting. Lastly, and this point is most important, pigeons, more readily than any animals with which I am acquainted, die under the influence of anæsthetics; so that if a pigeon made insensible by any such agent will recover, the inference is the fairest of fair that the same safety would be extended by the same agent to any of the other lower animals, or to the higher animal man.

To carry out inquiries with vapours and gases by their inhalation, I have constructed a special apparatus. Here is a



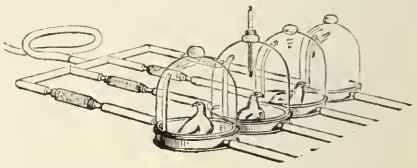
chamber of glass holding three hundred cubic inches, armed with a thermometer, and so placed on its stand that it can be at once sealed up from the air, except from such air as the experimenter may please to admit into it. Here, again, is a small glass cylinder charged lightly with cotton wool, and

completed at its free extremities with india-rubber tubes armed with metallic clips. The wool is intended to receive the fluid the vapour of which is to be tested.

When we are about to use this apparatus, with great exactitude, we proceed to fit it up thus:—The chloroform, ether, bichloride of methylene, or other fluid to be used, is poured into the small glass cylinder on the cotton wool; the india-rubber tubes are readjusted, the clips are put on to prevent escape of vapour, and the whole is laid on the balance and weighed, the weight being recorded. One end of the tube is now affixed to the tube from the chamber which makes the connexion coming from the upper and inner part of the chamber. The other end of the tube is attached to a small gasmeter, and that in turn is connected with a pair of hand bellows. Lastly, the lower tube of the glass chamber—the exit tube—is connected with a potassa bulb tube charged with pure potassa solution, and also weighed. The apparatus is now quite ready for use; the animal is put into the chamber, the chamber is sealed up, and the time is noted.

When the small bellows are brought into gentle action, a current of air is driven by them, through the gas measurer, into the glass cylinder holding the wool. The air carries over with it the vapour to be tried, and the air and vapour together pass into the chamber, through the ascending tube, at the upper part; circulating through the chamber, the air charged with the vapour escapes by the lower tube, and in its further transit runs through the potassa solution. The temperature to which the animal has been exposed while inhaling the vapour is read off from the thermometer which enters the chamber.

By these arrangements we are permitted to carry out careful observations of the symptoms presented by the animal during inhalation, without being embarrassed, at the time, with extraneous although useful details. The quantity of air employed is registered; the quantity of fluid turned into vapour is easily calculated by an after-weighing of the containing tube; the temperature is recorded by the thermometer, and the product of combustion of the animal, the carbonic acid, is fixed in the potassa, and can be weighed. All these points, therefore, give no concern during the experiment; they are safely kept for after inquiry. In some experiments it is desirable to observe the effects of several vapours at the same time. In such cases three or four chambers may be linked together with their separate tubes, and may be worked from one bellows, as in the compound apparatus on the table before us.



In our present inquiry we will take the compound apparatus, putting together three of the chambers. We will charge one of the glass cylinders with a fluid drachm of chloroform, another with a fluid drachm of bichloride of methylene, and a third with a fluid drachm of tetrachloride of carbon. We will next take three pigeons and put one in each chamber, and from the bellows, which governs all the chambers, we will charge them equally with their respective vapours. You see that the pigeon in chloroform first shows signs of being affected; it is much excited, its head is drawn back, it seeks to escape, and suddenly collapses into the third degree of narcotism.

You see that the pigeon in the bichloride of methylene shows no excitement whatever, and, indeed, appears not to be influenced. The appearance is deceptive, for, observe, there is a slow subsidence of power, the head droops towards the wing, there is a gentle inclination to the side, and when we remove the animal there is profound anæsthesia which will last seven minutes at least, and will end in a sudden awakening.

You see that the pigeon in the vapour of the tetrachloride of carbon is by this time not free from excitement, although the others are asleep, and is not yet insensible. From one to two minutes more will be required before the animal comes fully under the influence; it will remain not longer insensible to pain than the others, but will be drowsy and dull much longer.

The results thus obtained are strictly characteristic, the modifications of symptoms observed in the different animals depending on the physical differences of the narcotising fluids. The peculiarity of the action of the bichloride of methylene is the absence, in the sleep it produces, of the second degree of narcotism, as defined by Snow. The subject lapses, or glides as it were, from the first degree into the third degree, or degree of absolute insensibility, without any marked intervening stage. In this respect the vapour closely resembles ether and, to a certain extent, amylene in action; but it differs from both these last-named substances in the narcotism induced being much more prolonged. When we are administering ether or amylene, we are dealing with vapours which are almost negative in action. Hence it seems as if we could not pour in their

vapours too freely, because, so soon as they are withdrawn, their action ceases; they are thrown out of the lungs in one or two respirations, and the animal lives again naturally. The bichloride, on the other hand, is in no sense a negative substance. It enters the circulation freely, and sustains the insensibility so well that intervals of many minutes may be allowed to pass without readministration. At the same time, it leaves the body quicker than its heavier comrades, chloroform and tetrachloride of carbon; for, being transformed altogether into vapour at a temperature lower than the temperature of the body, it can the more easily be eliminated from the body when its administration is withheld. On these grounds I should hope that, as an agent for general anæsthesia, the bichloride of methylene will be more practicable and readier than ether, and, at the same time, safer than chloroform or the tetrachloride of carbon.

There is one effect connected with the bichloride which I regret to have to record: the bichloride of carbon in some instances produces vomiting; whether in the human subject that very unpleasant symptom will be less frequent than after chloroform, experience only can decide. Owing to the readiness with which the bichloride finds its way out of the organism, it is probable that the act of vomiting, when excited by it, will be less severe and less prolonged, but beyond this it would be unsafe to speak. The fact that vomiting is produced is all that is positive, and it is a misfortune that must not be concealed.

On animals the bichloride of methylene acts more evenly on the respiration and the circulation than any other anæsthetic with which I am acquainted. When the breathing is quickened the pulse also is quickened in proportion, and when the breathing is slow and tranquil the pulse is the same. This is a good point, because there is no condition more perilous than disturbed balance of the circulating and respirating systems. The equality of action depends on equality of diffusion of the agent through the nervous centres, an equality evidenced also in the general ease of the transition of the subject from the first to the third degree of narcotism, and in the suddenness and completeness of the recovery when that once commences.

ON ADMINISTERING THE BICHLORIDE OF METHYLENE TO THE HUMAN SUBJECT.

When I had learned by repeated experiments that the bichloride of methylene could be safely administered to inferior animals, I inhaled it myself until it produced insensibility. I found the vapour very pleasant to breathe, and little irritating, while drowsiness came on and unconsciousness without any noise in the head or oppression. I recovered also as the animals seemed to recover—at once and completely. I felt, in fact, as though I had merely shut my eyes and had opened them again. In the meantime, however, I had performed certain acts of a motor kind unconsciously; for I inhaled the vapour in the laboratory, and there went into sleep, but I awoke in the yard adjoining. This was on September 28th last. I inhaled on the occasion from a cup-shaped sponge. Since then, I have inhaled the vapour in smaller quantities from several instruments with the effect of proving that there is little difference required for administration between the bichloride and chloroform. The bichloride may be inhaled from a moist sponge, from a balloon or Clover's bag, or from a funnel such as this, made by stretching a few layers of thin cloth over a small wicker work such as is used for surrounding a flower pot, and which opens or closes to any size that may be required. A metallic inhaler such as Snow's chloroform inhaler presents too small a surface for evaporation. In the course of administration, a little more bichloride of methylene is required in the earlier stages than would be required if chloroform were being used, the fluid being more easily vaporisable, and the loss greater. One drachm of bichloride to forty grains (or, in common phrase, minims) of chloroform is a fair statement of the difference required; but when the narcotism is well set up, less of the bichloride is needed, in animals, to sustain the effect, the repetition of the administration not being so frequently demanded.

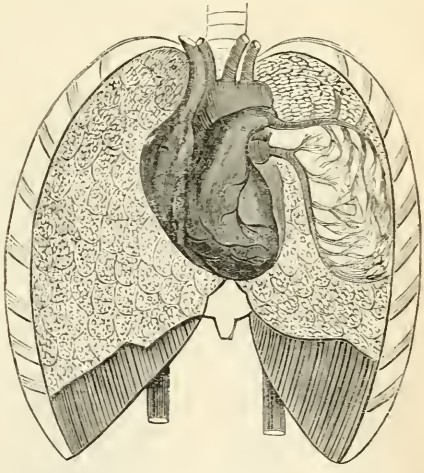
THE DESTRUCTIVE POWER OF BICHLORIDE OF METHYLENE.

Like all anæsthetics given by inhalation, the bichloride of methylene has the power to destroy life. Its safety as a general anæsthetic must, therefore, be accepted as relative rather than absolute. I have tried to ascertain its relative value with as much care and candour as I could summon, and the result of my work leads me to hope that the balance of safety is on the side of the bichloride. Three observations bring me to this reasoning. First, I find that if two animals of the same age and kind, say pigeons, be placed in chambers of the same size, and exposed at the same temperatures, and under other conditions the same, to equal values of chloroform, tetrachloride of carbon, and bichloride of methylene, the resistance to death will be as fourteen to five in favour of the bichloride of methylene against the tetrachloride of carbon, and as fourteen to nine against the chloroform.

In the second place, when animals are exposed until they are killed by these vapours, there is a marked difference in the maintenance of muscular irritability. The tetrachloride of carbon destroys the muscular irritability first, the chloroform next, and the bichloride of methylene last, and this difference I have found so striking as to represent in one experiment a period of seven minutes for extinction of irritability by the tetrachloride, twenty-three minutes for the chloroform, and fifty-eight minutes for the bichloride of methylene. This distinction rests, I think, on differences in the amount of chlorine in the three substances, and I point out the fact not merely as showing the lower destructive power of the bichloride, but as affording a hope that in a case of accident from it the means resorted to for restoring animation would be more likely to succeed, the muscular power remaining more directly under the influence of excitants to renewed action and for a long interval.

Thirdly, the condition in which the lungs and heart are left after death from the bichloride is favourable. On this subject I may point out that after death by narcotic vapours there are three distinct conditions produced, depending on the nature of the gas or vapour that has been inhaled. Thus, in sixty-eight deaths from chloroform in the lower animals, I found the condition of lung as defined in the accompanying diagram.

Diagram A.



Here, as you will see, the lungs are left bloodless, the right cavities of the heart intensely engorged, and the left cavities empty.

In death from carbonic acid, and sometimes, but not always, and never in so marked a degree, from ether and from tetrachloride of carbon, the condition is as depicted in the next diagram (see Diagram B on the following page). Here the lungs are left congested with blood, and both sides of the heart contain blood.

In death from bichloride of methylene the condition is midway betwixt the two preceding, as shown in Diagram C. Here the lungs contain blood, and both cavities of the heart contain blood. In fact, the column of blood from the right to the left side of the heart remains unbroken, while the pulmonary vessels and the cardiac cavities are under no undue distension. This condition is very favourable for efforts at resuscitation.

While these descriptions have been offered, Dr. Sedgwick has been good enough to dissect two animals—one killed

with chloroform, the other with bichloride of methylene. Turning to them and comparing the condition of the lungs and heart, you see that the varying states drawn in the diagrams correspond to the letter with those presented by nature.

DIAGRAM B.

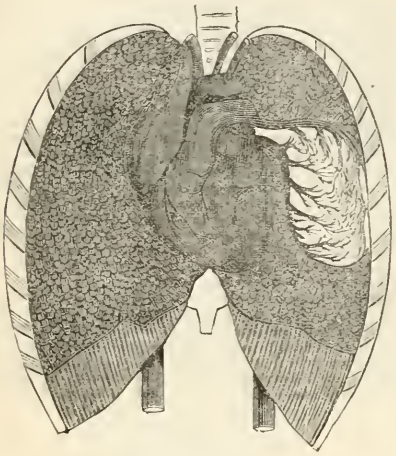
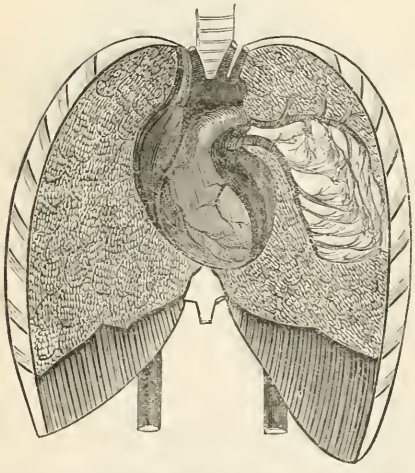


DIAGRAM C.



To sum up these researches, I would give to the Bichloride of Methylene the following characters :—

1. It is an effective general anæsthetic, producing as deep insensibility as chloroform.
2. In action it is rather more rapid than chloroform, but to develope effects more of it is required, in the proportion of six parts to four.
3. It produces a less prolonged second degree of narcotism than other anæsthetics.
4. When its effects are fully developed, the narcotism is very prolonged, and is reproduced with great ease.
5. Its influence on the nervous centres is uniform, and it creates little, if any, disturbance or break of action between the respirating and circulating functions.
6. Its final escape from the organism is rapid, so that the symptoms of recovery are sudden.
7. In some cases it produces vomiting.
8. When it kills it destroys by equally paralysing the respirating and circulating mechanisms.
9. It interferes less with the muscular irritability than perhaps any other anæsthetic.
10. It combines with ether and with chloroform in all proportions.

APPENDIX TO ABOVE LECTURE.

Since the lecture above written was delivered I have been enabled to test the action of the bichloride of methylene on the human adult subject in five long and severe operaations. Four of these were cases of ovariotomy performed by Mr. Spencer Wells, and the period of narcotism in each case averaged from thirty-five to forty-five minutes. In all the cases, except one where Weiss's inhaler was used, the anæsthetic was administered from a simple mouthpiece made of a layer of parchment paper stretched over a light frame of wood, and lined on the inner surface with lint. The quantity of bichloride of methylene used in each case averaged a little more than a fluid drachm each five minutes, two drachms being first used. In all the cases the administration has been safe, and the recovery from the effects of the narcotic good. I noticed specially that in each case the transition from the first to the third degree of narcotism was very brief; that when the anæsthesia, which was complete in an average of five minutes, was well established, it was easily prolonged for six, and even seven, minutes without readministering the vapour, and when recovery began to show itself, very brief readministration quickly reproduced the insensibility. In one case after the operation, the patient continued twenty-seven minutes in unbroken sleep, and then awoke with entire consciousness.

It happened that one of the ladies to whom I gave the anæsthetic had once been under chloroform, Dr. Snow having been the administrator. This lady was therefore able to compare the effects of the two agents, and she gave her verdict strongly in favour of the bichloride. She said it caused no sense of suffocation, no ringing sounds in the head, no nausea, and no after depressing effect whatever, as chloroform in her case did; but it allowed her to drop into sleep precisely as in naturalsleep, and to wake with all her senses aroused as after natural sleep.

On the whole, the results of practice, in so far as they go, have fully realised my expectations. Only two adverse points, and those minor, occur to me. In one case —after operation for vesico-vaginal fistula—the patient, who recovered from the anæsthesia without any nausea, had, I learn, ten hours afterwards, a bilious vomit. It would be unfair to put this against the anæsthetic, but the fact should be stated. In another case, the anæsthesia having been carried very deeply, the tongue of the patient was retracted into the throat, and, after pulling it forward, there was a free secretion of saliva, followed by an eructation and about a dessertspoonful of fluid from the stomach. This might have been excited by the irritation communicated to the throat in pulling up the ongue, or it might have been from the anæsthetic. In all the cases the recovery from the anæsthetic was in every sense satisfactory.

It is already stated in the lecture that Bichloride of Methylene mixes with ether. I have tried this mixture in experiment as an anæsthetic, using equal parts of ether and bichloride. The compound anæsthetises quickly, and the action is characteristically modified. The ether materially shortens the duration of the insensibility, there is less freedom of respiration, and more excitement. On the whole, I do not at this moment see any advantage in the mixture over the simple Bichloride. I leave the point open, however, for future study.

I leave the Bichloride of Methylene with the Profession for its observation and experience. I have proved the agent, by experiment on the lower animals, to be a good general anæsthetic. I have inhaled it myself with safety, and I have administered it to the human subject with success in the extremest operations for which general anæsthesia is demanded. Here, as an individual inquirer, I come back into the ranks and rejoin the rest of my brethren as an observer. Having no other ambition than that of being a Physician in the widest sense; having even a painful aversion to specialty, and having no desire to press any subject unduly, I have produced this lecture as a contribution to pure science and nothing more;

holding myself as free as any one else to condemn, improve, or approve, as future knowledge, framed and squared and fitted by wisdom, shall determine. When twenty thousand persons shall have slept away pain under the influence of "Chloromethyl," as Mr. Spencer Wells has tersely named the Bichloride of Methylene, and those of them who have slept too deeply shall be counted as fewer than ten, an advance over chloroform will have been proved, but not sooner, nor with less of that tribulation through which we must ever attain to the good that is great and persistently beneficent.

ORIGINAL COMMUNICATIONS.

AMPUTATION OF THE THIGH AND RE-AMPUTATION AT THE HIP-JOINT FOR OSTEO-MYELITIS.

DEATH FROM TOXÆMIA AND THE FORMATION OF FIBRINOUS COAGULA IN THE RIGHT SIDE OF THE HEART.

By J. FAYRER, M.D., F.R.S.E.,

Professor of Surgery Medical College, and Senior Surgeon Medical College Hospital, Calcutta.

On July 2 I amputated by the modified circular operation, at its lower third, the right thigh of a Hindoo lad, aged 21 years. He was admitted into the Medical College Hospital on June 24, twelve days after receiving the injury that rendered amputation necessary.

The following is an abstract of his case from the date of the accident up to July 4 :—

P., aged 21 years, was admitted on June 24, 1867. Twelve days ago, when cutting grass, he injured his right knee with the instrument—a sort of trowel with which the grass is partly cut and partly scraped from the earth. He either opened the joint at the time, or the wound ulcerated and exposed the cavity shortly afterwards. He can give no very clear account of his condition, excepting that he had great pain, rigors, and fever. On admission it was ascertained that he had an ulcerating wound about an inch in length, just at the upper and inner edge of the patella, which had exuberant granulations and produced a sanious discharge. The knee-joint was somewhat swollen, and very painful when moved. On examining the wound carefully with a probe, it was found to communicate freely with the joint. The cartilages, especially that of the under surface of the patella, felt rough. He was feverish and restless, skin hot, and pulse quickened. Put him in bed with the limb at rest on a splint.

June 25.—7.30 a.m. : Pulse 128 ; temperature 106° ; had a rigor ; pain in the knee diminished ; had an opiate last night. 5 p.m. : Pulse 128 ; temperature 106° ; had a rigor during the day, at 3 p.m. ; urine examined, sp. gr. 1017, alkaline, no sugar, no albumen.

26th.—7.30 a.m. : Pulse 120 ; temperature 104·5° ; no rigor last night ; very little discharge from the wound ; pain slight. 7 p.m. : Pulse 120 ; temperature 106° ; no rigors.

27th.—Condition, pulse, and temperature the same as yesterday.

28th.—7.30 a.m. : Feels better ; temperature 101° ; pulse 100 ; less pain ; bulb of thermometer passed gently into the joint, temperature 102°. 4 p.m. : No rigors ; pulse 108 ; temperature 104°.

29th.—Same condition as yesterday.

30th.—7.30 a.m. : Discharge from wound increased ; no rigors. 4 p.m. : Pulse 108 ; temperature 104°.

July 1st.—7.30 a.m. : Much discharge ; temperature 104° ; pulse 128. 5 p.m. : Pulse 130 ; temperature 106° ; no rigors ; has a slight cough. During all this period he has taken a light diet moderately well, and the bowels have been kept open.

2nd.—Pulse 132 ; temperature 103° ; much discharge of a puriform character and fœtid odour. 10 a.m. : Amputation, by the modified form of circular operation, was performed at the lower third of the thigh. Fourteen ligatures were applied ; about six ounces of blood was lost. As the bone, where divided, was found to be stripped of its periosteum by the slightest manipulation, it was divided again about two inches higher up. The knee-joint was found to be filled with pus, the cartilages rapidly disintegrating ; the ligaments softened, and the leg infiltrated with pus. Before the operation, pulse 130. There was a harsh respiratory murmur on the upper and right side of the thorax, with some dulness on percussion, and with crepitant rhonchus, for which turpentine stupes had been applied. 2 p.m. : He has vomited several times, probably the result of chloroform. Pulse 120. 6 p.m. : Pulse 120 ; temperature 105°. No bleeding from the stump. Had a slight rigor since last report, which lasted for a quarter of an hour.

3rd.—4 a.m. : Bowels loose, moved four times since last report. Has not slept well, though he had an opiate. 7 a.m. : Pulse 124 ; temperature 101°. Slight oozing from the stump on pressure.

4th.—This morning I find that he is not doing well. Pulse quick ; skin hot. Had rigors during the day yesterday. Breathing hurried ; dulness in upper right side of chest, with moist râles. The stump is somewhat distended with blood, and the dressings are blood-stained. He appears to have had considerable venous oozing during the night. Opened the flaps, and removed blood clots ; found the bone protruding and stripped of its periosteum, the adhesion of that membrane being so feeble that the retraction of muscular fibre had stripped it from the bone ; the medulla protruding, and, no doubt, suppuration commencing in the medullary cavity. The symptoms of toxæmia are already well marked and rapidly increasing—so much so that removal of the entire bone by amputation at the hip-joint seems to offer the only, though but a small, chance of saving life.

In consultation with my colleagues, the operation was at once decided on, and performed at 9 a.m. of July 4. He was brought under the influence of chloroform, and the limb removed by the antero-posterior flaps. He was very low during the operation, though he lost but little blood, the artery being commanded by Professor Partridge, whilst the limb was managed by Professor Colles.

Just after the operation, his pulse was 140, and very feeble ; temperature 98°. He remained in a depressed state until about noon, when imperfect reaction set in. When I saw him in the afternoon, his pulse was 140 ; temperature 104°.

5th.—7 a.m. : He is not doing well ; passed a restless night, although he had an opiate ; has taken some nourishment and stimulants ; is rather delirious, and tries to take off his bandages. Pulse still 140, and at times it rises even higher ; temperature 103° ; breathing rapid, and the lung sounds much as they were yesterday ; no hæmorrhage from the stump ; general tenderness over the abdomen ; his tongue is moist and blanched ; he is restless, and has a tendency to delirium. Stimulants and nourishment ordered to be given frequently. 3 p.m. : He is much in the same condition, perhaps weaker ; pulse very rapid, over 140 ; temperature 103° ; has had no rigors since the operation. Shortly after, his breathing became very hurried, and he sank at 11 p.m.

Post-mortem Examination at 9 a.m., July 6.—Decomposition, owing to the great heat and dampness of the weather, proceeding rapidly. Thorax : Pleuræ contained some fluid, but there were no evidences of inflammation. Pericardium also contained more than the natural quantity of fluid. Heart healthy in structure ; left ventricle contracted, and contained neither blood nor fibrinous clot ; right ventricle contained a firm, flattened, and adherent decolorised clot extending far into the ramifications of the pulmonary arteries. The right auricle was stuffed with a firm white clot, supplemented by a more recent clot. The obstruction evidently lay here. The lungs were blanched, some portions of them quite exsanguine ; others contained a little blood. They were both emphysematous and œdematous. No change of structure anywhere in either the lungs or liver. Abdomen : No sign of peritonitis ; no extension of inflammation or suppuration into the abdominal cavity along the crural canal. Pelvic fascia raised ; no suppuration found anywhere in the pelvis ; liver and abdominal viscera pallid, but healthy. Nothing remarkable in the stump. Bone examined after amputation ; medulla infiltrated with pus. Reaction after the hip amputation never was thoroughly re-established, and in this condition embolism, rapidly occurring in the right side of the heart, terminated life.

Remarks.—The immediate cause of death in this case appears to me to have been the formation of coagula in the right side of the heart, a pathological condition likely enough to supervene in the state of exhaustion—due to blood-poisoning in the first instance, and the shock of the amputation in the second—in which the patient was placed. The

firm adherent decolorised clots in the right cavities of the heart, the plugged pulmonary arteries, together with the blanched emphysematous and œdematous lungs, clearly indicate this to have been the case. The earlier pathological condition of toxæmia was due, no doubt, to osteo-myelitis in the femur, setting in after the amputation of the lower third of the thigh. The absence of any structural change in the viscera leads me to suppose it possible that, had embolism of the right side of the heart not occurred, and had reaction been more fully established, he might have recovered, as happened in the case of a young man whose thigh I removed at the hip-joint for osteo-myelitis some years ago, when the symptoms of pyæmia had well set in, but who recovered after the re-amputation, and is now alive and well. The occurrence of these clots is not unfrequent in pyæmic cases, and is the immediate cause of death in many; and it may be regarded as one of the dangers to be apprehended in cases where blood changes have taken place after Surgical operations on wounds, and it is probably a frequent cause of death in those rapidly fatal cases of pyæmia in which no structural changes are found in the lungs, liver, spleen, or kidneys after death. No doubt death may occur from the intensity of the poison alone, without the presence of these fibrinous clots, or of gangrenous patches and puriform collections we generally see in the lungs and other viscera; but I think that if such fatal cases were carefully examined it would be found that the fatal event might be traced to obstruction of the pulmonary circulation in the right side of the heart, more frequently than to the direct toxic effect on the blood and nerve centres. With reference to the modified form of circular amputation, I may remark that my method of performing it is as follows:—I cut through the integument an anterior and a posterior flap, exactly similar in form to those which would result from the double flap operation. The integument having retracted freely, aided by a few touches of adherent bands of arcolar tissue with the scalpel, I lay down that instrument, and with an amputating knife cut from without inwards, obliquely upwards, until very near the bone; I here, with one or two circular sweeps of the knife, divide the remaining muscular fibre and the periosteum, and next divide the bone. This makes an excellent stump, without any redundance of muscle in the flaps; and it may be performed, in the absence of an amputating knife, with an ordinary scalpel. In making the posterior flap, it is necessary to raise the limb up in a vertical position in order to enable the operator to cut freely at the posterior part of the limb. I apply this principle in most amputations, and find that it answers admirably.

Calcutta.

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
Surgeon and Pathological Anatomist to the Royal Free Hospital.

No. V.

REPARATION SUBCUTANEOUSLY, AND BY SUPPURATIVE GRANULATION; IN THE TREATMENT OF CONTUSION, CONTUSED, LACERATED, AND PUNCTURED WOUNDS.

NEXT in significance to the *laws* which pathological investigation supplies for the guidance of Surgical treatment, and in virtue of which the study of *typical* forms of injury and disease becomes both possible and profitable, there is no more characteristic feature of Pathological Surgery than the natural *continuity* in its order of nosological arrangement. The links of empirical experience are ever disarranged and disconnected; those of pathology may be wrought into a far more uniform and complete chain.

Contusion, for example, is essentially a laceration of the soft textures, but subcutaneously, the skin remaining unbroken. This lesion, therefore, is the connecting link, in nature, between other subcutaneous lesions by laceration—*e.g.*, simple fracture and dislocation, and openly lacerated or contused wounds, compound fracture and similar dislocation; the turning point, pathologically and practically, being exclusion from, or exposure to, the action of the air

The *natural course* and *tendency* of this lesion is, in like manner, twofold; inclining, on the one hand, to reparation subcutaneously; on the other, to sloughing, the formation of an open wound, and reparation subsequently by the process of suppurative granulation. Thus, no perceptible alteration may take place in a contused part, the bruised appearance remaining for a variable period; but absorption supervening, the originally purple or livid discoloration of a bruise fades away into a greenish or yellowish hue. Any general resemblance to gangrene, in the first instance, is distinguished by the temperature and sensibility of the part not declining. Blood extravasated in considerable quantity may also remain stationary, as a bag of fluid, and fluctuating to the touch, as if an abscess. Puncture with a grooved needle will show the difference; but the imprisoned blood generally undergoes changes of consistence, becoming thin and serous, and enclosed in a fibrous cyst, or thick and dark like treacle, constituting a sanguineous tumour—hæmatonia; or with coagulation, organisation of the clot may ensue by the development of new blood-vessels. In either of these subcutaneously reparative alterations, the blood corpuscles undergo disintegration to some extent; and hence, apparently, the changes of colour, followed by absorption; and it can scarcely be doubted that the damaged structural condition of the textures is more or less reinstated. But the intimate nature of all these reparative alterations, after contusion, requires further investigation. Lastly, the most obvious change may be destruction, prevailing over any reparative effort; the blood, acting as a foreign body, induces inflammation, the products of which, commingling, form a bloody purulent fluid, extravasated amid the disintegrated textures. Gangrene is imminent, an event the more apt to ensue according to the severity and extent of contusion; gangrenous disintegration of the textures then appearing as sloughing or traumatic gangrene, and converting the subcutaneous lesion into an open lacerated wound. Hæmorrhage, superadded to the blood originally extravasated, is another adverse issue, but less common, unless in internal organs.

Reparation by the process of suppurative granulation will be described more appropriately in tracing the course of a contused or lacerated wound.

The vital history of contusion—its pathology—supplies, as usual, the three characteristic indications of treatment.

The *earliest occasion* for interference is determined, not by the presence of contusion, which is naturally disposed to undergo reparation subcutaneously; but it depends on the degree of contusion and the quantity of blood extravasated. A slight ecchymosis disappears spontaneously; a more severe bruise may need help.

The *kind* and *least amount* of assistance are, in the first instance, to promote *absorption*, without any breach of the integument. Various topical applications have reputed efficacy. Arnica, I think, possesses some virtue. The tincture diluted, in the proportion of an ounce to half a pint of water, is perhaps more efficacious than spirit lotion, or any other cold evaporating fluid. Leeches are not merely useless to withdraw the blood, congealed and infiltrated; but by admitting air, and thus inducing decomposition, they are positively noxious. Moreover, they are apt to excite sloughing of the skin. Should gangrene threaten, whether from the blood acting as a foreign body, from the severity and extent of the contusion, or from both these conditions co-operating; then, indeed, *incisions*, early and free, are imperative, to give vent to blood and pus which would otherwise rapidly putrefy, and to prevent sloughing, or its progress. In short, any attempt to aid restoration is now too late or inappropriate, and the rule of treatment should be to anticipate if possible, or at least accompany, the work of destruction, and forthwith remove its results. Accordingly, in the event of traumatic gangrene, amputation may become justifiable, as an extreme and rare resource.

Contused wound presents the same vital history as contusion, after any breach of the integument has identified these lesions. *Lacerated* wound in all cases, and *punctured* wound in many instances, including *gunshot* wounds, are also associated by a similar vital history; the chief peculiarities of the two latter lesions being the great depth to which they may extend, thus injuring important blood-vessels, nerves, or viscera, and producing corresponding functional disturbances. But contused wound, *per se*, may be taken as the *type*.

The textures, disintegrated by any such violence, inevitably die to a greater or less extent. This, which is, strictly speaking, *traumatic* gangrene, on however small a scale, is effected in one of two ways, or both may be combined. Severe contusion kills the *textures outright*, or indirectly, by damaging

the *blood-vessels*, perchance some distance off, in which case death of the part is occasioned by an intervening internal causative condition—deficient supply of blood. In both cases, however, gangrene is *immediate*, or immediately commences; it evinces *no* tendency to *spread* beyond the confines of the injury, and, in due time, is *defined* by sloughing or by "a line of demarcation" between the living and dead parts.

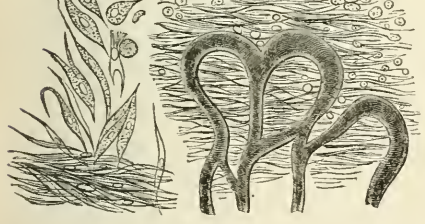
Or, gangrenous *inflammation* supervenes, and thus a part, which was not killed traumatically, dies subsequently. Yet such gangrene, also, is restricted to the seat of injury and defined by sloughing.

Spreading traumatic gangrene is distinguished by the opposite characters, but its pathology I shall have occasion to notice in connexion with compound fracture.

The phenomena, or symptoms of traumatic gangrene, need not be particularly described. Such gangrene is humid or moist, unlike the dry form, of which senile gangrene is the representative.

In favourable contrast with any tendency to death, the wound may evince a disposition to heal by primary adhesion, or, any irrecoverable part having sloughed and separated, the exposed surface heals by suppurative granulation. The process is, then, briefly this:—The local circulation is temporarily suspended. A thin coagulable lymph oozes from the surface, and forms a fibrinous film, in which *white corpuscles* of the blood abound. Thus the whole surface becomes glazed over, excepting perhaps any portion of fat or bone, which textures yield scarcely any, if any, such lymph. A period of *inactivity* follows, lasting from one day to ten or more, but varying with each particular texture in the wound. Some further oozing of lymph and thickening of the film may, however, continue during this period. At length, a distinct afflux of blood more than restores the circulation around the seat of injury. *Reparative* lymph begins to flow, which mingles with or displaces that which has hitherto glazed the wound. This lymph undergoes the same process of organisation as in healing by adhesion—namely, self-development into fibro-cellular tissue. The deepest cells are most advanced; they are elongated nearly into fibres (Fig. 1). The *superficial* ones remain in a

Fig. 1.



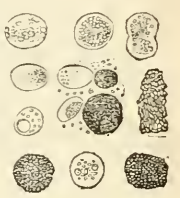
rudimental state, and at length acquire the character of epithelial cells. Capillary blood-vessels spring from below, forming loops, as also seen in the figure. Each new vessel is constructed by the outgrowth of two pouches from a parent vessel. The pouches, crammed with blood corpuscles, shoot upwards, and, curving inwards, never fail to meet exactly in apposition, neither segment overshooting. They coalesce by absorption of the partition at the junction of their closed ends, thus completing a vascular loop, through which the blood, diverging from the main current, and rejoining it, is continuously propelled. If, in the construction of any such vascular arch, the pouches burst, the process is then completed by the propulsion of the blood-corpuscles, the current of blood from the parent vessel being directed so skilfully as to channel a curved passage through the fibro-cellular tissue. Nerves and lymphatics do not apparently enter the substance of granulations.

The process of development having finished, healthy granulations are seen in the shape of small conical papillæ, of a glistening red colour when free from pus. The *cells* of pus in suppurative granulations are either degenerate or immature granulation cells. If the former, pus represents the *superficial* portion of organised granulation material, which, having lived its time, passes off, just as epithelial cells are detached. If immature granulation cells, pus represents the *superfluous* portion of organisable material, which never reaches maturity. *This* is the more probable interpretation. Compare pus-cells (Fig. 2) with the *uppermost* granulation-cells, to the left, in the previous figure, and their great similarity or identity will be obvious. The five transparent cells, showing a granular nucleus, are as seen after the action of acetic acid, whereby their resemblance is lost. As *immature* granulation-cells, pus ceases to be secreted when the granulations come to the level of the skin, for then, the wound or chasm being filled up, no more organisable material is needed.

Fig. 2.

It is here desirable to notice, on the other hand, the *degenerative* relation of pus-cells to exudation corpuscles. The latter consist of aggregated granules, apparently fatty, with or without an enclosing cell membrane (Fig. 3). They are liable to undergo a partial liquefaction, and thence their conversion into the many-nucleated corpuscles of pus. Several such transformative conditions are also represented in the figure. The relation of both pus and exudation cells to the white corpuscles of the blood is part of the general history of "structural retrogression" in respect to healthy textural elements—a pathological law which is fully considered in my "Principles of Surgery" (p. 93, *et seq.*).

Fig. 3.



Sometimes, during the granulating process, granulations from opposed surfaces meet together. They may then unite—a conjunction designated "secondary" adhesion, to nominally distinguish it from adhesion primarily, as between the surfaces of an incised wound. But it takes place in the same way, by the development of fibres out of nucleated cells and the interchange of capillary blood-vessels through this medium of communication.

The contractile force of granulations is supplemental to reparation in bringing down the marginal skin to their own level and diminishing the area of the wound. Thus, then, by their actual growth and possible coalescence, aided by their contraction, granulations and skin at length become even.

Cicatrisation commences, its purpose being to cover the granulations with skin. The marginal skin advances as a white line, preceded by a translucent bluish-white line of cuticle around the circumference of the sore. Converging, the surface gets covered; sometimes little islands of new skin form here and there, which coalesce, and shorten the process of marginal cicatrisation.

Newly formed and healthy cicatrix-tissue is thin and red, with a stretched, shining aspect, and not so supple and elastic as true skin; somewhat depressed, sometimes elevated, and always moveable. It contracts for a long while, and with considerable force, especially after burns, and acquires a pearly-white colour. It gradually becomes more supple, elastic, and moveable as part of the integument. Nature has healed, and almost effaced, the wound.

The *treatment* of a contused wound, obediently to its natural course and tendency, is, in the *first instance*, the same as that for an incised wound. Foreign bodies—as grit, portions of clothing—having been removed, the coaptation of the textures, and their retention in position by the usual Surgical appliances, are the immediate rules of treatment. Thus the lesion is converted, as far as possible, into simple contusion; and, moreover, the chance of primary adhesion *partially* taking place, is turned to account. In all superficial wounds and of vascular parts, as the scalp, this mode of healing may be solicited with good prospect of success.

The disintegrated textures inevitably die, to a greater or less extent. Hence the *kind* and *least* amount of assistance required. In the event of primary adhesion having failed entirely, and in all deep and extensively contused wounds, it becomes necessary to actually encourage and aid the process of sloughing, in order to bring into operation that of healing by granulation. The separation of sloughs is favoured by warmth and moisture, in the shape of a light poultice or spongio-piline epithem. The reparative process needs little assistance; position, rest, and protection from the action of the air by water-dressing, will suffice for the granulating of any healthy wound. But the unknown power and resources

of this or that mode of reparation, in different parts of the body and in different individuals, will ever restrain the pathological Surgeon from hastily foregoing the probability or possibility of the more advantageous mode in *any* case. It is to impress this consideration that I relate the particulars of the following case:—

A man was brought to the Royal Free Hospital, having fallen from the box-seat of a van, and pitched on the right side of his head. He was faint, but without any symptoms of concussion of the brain. The whole of the integument covering the right half of the skull was torn off, and hung as a flap over the face. The peduncle of this flap was limited to a piece of skin, extending from the external angular process of the frontal bone to the nasal eminence, or about the length of the eyebrow. The temporal muscle was detached entirely down to the zygoma, and lay in the flap, full of grit. The corresponding portion of skull was so entirely bare of periosteum that I could plainly see the numerous foramina in the temporal bone, from which the small fibrous processes of this membrane had been torn when it was peeled off. Below the zygoma, the upper half of the masseter muscle was exposed.

Happening to be in the ward when the man was brought in, I had the earliest opportunity of testing the vitality of this nearly detached portion of *contused* integument—half the scalp, and of the bone *denuded*, to the same extent. I removed the grit-ingrained temporal muscle, and at once replaced the flap. It united with the bone by primary adhesion, and throughout its whole extent, excepting over the zygoma and masseter muscle. There healthy granulations sprang up, and, by their growth, apparently incorporated the portion of temporal muscle beneath the zygoma. Not one unfavourable symptom occurred in the course of reparation, excepting a heavy aching pain, now and then, over the temporal and parietal bones. The irregular margin of the flap having united with the sound scalp, the granulations below the zygoma cicatrised soundly. The only obvious disfigurement, ultimately, was the remarkably flattened appearance of the right side of the head, occasioned by the absence of the temporal muscle, a bulky one.

Four manifestations of strong reparative power were evinced by the progress of this interesting case—namely, union by *primary adhesion* of the whole flap of integument, although contused and ill-supplied with blood through its narrow peduncle; union of such integument with the bone, without any previous exfoliation, although the osseous surface was *deprived* of its *periosteum*; and similar union of the *cartilaginous* portions of the ear; lastly, the *pro ess* of granulation and cicatrisation over the masseter muscle, although frequently disturbed by movements of the jaw.

Deep and extensively contused or lacerated wounds of either *limb* are conditions which, in relation to profuse suppuration or gangrene, must be considered both with regard to the preservation of the limb and the life. The *propriety of amputation* turning on both these issues will be more advantageously determined in connexion with *compound* fracture and dislocation, which will form the subject of my next communication.

ON A CASE OF WOUNDED PALM, IN WHICH TWO BRACHIAL ARTERIES WERE TIED.

By JAMES FOWLER, Esq., F.S.A., etc.,
Honorary Surgeon to Clayton's Hospital, Wakefield.

Considering that the difference of teaching respecting the right treatment of wounds of the palmar arch is quite equalled by the difference in the practice of different Surgeons, the following case may not be uninteresting, illustrating as it does some of the complications which tend to throw difficulties in the way of successful treatment.

James F., aged 30, on April 13 last, while intoxicated, fell upon some broken glass and cut his right hand severely. It bled profusely, and, though the man was taken up at once, he fainted before he could be got a few yards off to a Surgeon, who bound up the wound tightly with a compress. The next day the man kept quiet, but on the one after went to the Sessions House, where, on coughing, violent bleeding broke out again, and brought him to the verge of syncope. He was then taken to the Clayton Hospital, where the dressings were removed. There was a wound extending about two inches obliquely across the centre of the palm, parallel with, and about a quarter of an inch from, the crease at the base of the thumb. Arterial blood was issuing freely, but it was not thought safe to risk the loss of more by attempting to secure the vessels at this time; a compress was accordingly applied, and the man put to bed. On the evening of the next day strong reaction set in, and there was a little oozing from under the edge of the compress, but this ceased on tightening the bandage. On the 17th, as there had been a fresh outburst during the night, and it was therefore evident that the present arrangement did not answer, the whole was removed and the wound completely exposed, the radial and ulnar arteries being commanded by the House-Surgeon. But it was now too late to hope either to find or, as Miller suggests, to strangulate the bleeding arteries, the sides of the cut, which went down to the bone, being inflamed, and lined with adherent flocculent fibrin. Our efforts merely increased the mischief without in any respect alleviating it. Not being inclined to try again the compress, which had already turned out useless, my colleague, Mr. Walker, contrived an ingenious and, as the result showed, a most effective instrument. This was a wide arch of elastic cork spanning the wound and resting by its piers, which were well padded with cotton wool and lint, upon the site of the palmar arches. A short lath upon the palmar side of the hand, with a broader one well padded on the dorsal, kept it in position, the projecting ends being secured by strips of adhesive plaster, which were tightened from time to time as seemed necessary.

20th.—Thin, fœtid, effervescent pus was exuding from the wound, and the skin surrounding it looked inclined to slough. The apparatus was therefore removed, and there was no bleeding.

23rd.—Thinking himself out of danger, contrary to instructions he got out of bed to go to the water-closet, and the hæmorrhage broke out again as badly as ever. The apparatus was re-adjusted.

24th.—The bleeding kept breaking out at intervals, the compress not being sufficiently tightened, as the palm was now a good deal swollen. A fresh cork was cut, so as to command the radial and ulnar vessels at the wrist, and applied as before.

29th.—During the first twenty-four hours the pressure in the new position restrained the bleeding completely. Afterwards, blood began to well up again freely, but a third compress upon the front of the wrist stopped it for a time. Then the vessels began to allow blood to pass, no matter how carefully the compress was adjusted, unless a much greater degree of pressure was used, and pressure of any kind was fast becoming unbearable. The skin at the back of the hand, moreover, had begun to slough, and that at the front of the hand to be discoloured; two large bulke also had made their appearance to-day, and the areolar tissue was much infiltrated, though every endeavour had been used to interfere with the venous circulation as little as was compatible with restraining the arterial. On making pressure on the brachial, the result was most perplexing. At first the bleeding at the wound stopped and there was no pulsation at the wrist, but in a few seconds the blood came welling up, and there was a slight but perfectly distinct pulsation on the ulnar side; and yet two separate pulsating vessels in the upper arm could not be made out distinctly. With respect to the future, it was obvious that further pressure would be worse than useless; a tourniquet on the brachial could not be expected to answer better than pressure with the finger, which was not sufficient to restrain the hæmorrhage; as even extreme pressure on the radial and ulnar vessels was at last only of temporary service, and, together with the stimulus of the inflaming hand, had no doubt served already to enlarge the anastomosing branches, little could be hoped from deligation at the wrist; and flexion, even when carried to an extreme, and combined with the raised position of the hand, which had been maintained throughout, was of no avail. Accordingly, it was determined to make an exploratory operation in the middle of the brachial region, and tie whatever artery or arteries might be found there. Chloroform was not administered, as it was thought desirable to avoid the risk of struggling, sickness, or increased cardiac action. An incision through the skin and fascia readily exposed the edge of the biceps and the median nerve, and immediately behind and external to the latter was the brachial artery, surrounded by a plexus of veins, from which it required a little time, patience, and cautious dissection to separate it sufficiently to allow the passage of the needle bearing the ligature. The vessel was observed to be smaller than usual, but on tightening the thread all pulsation at the wrist and bleeding in the hand instantly ceased; nor could any

other pulsating vessel be discovered in the wound, though a careful search was made for it. Scarcely, however, had we washed our hands, and prepared to fasten up the wound, when there was a pretty smart outburst of bleeding from the palm, and the ulnar artery could now be felt feebly pulsating. On very careful examination, too, a deep pulsation was felt about two inches above the inner condyle, between the latter and the biceps. The first incision was therefore extended, and eventually a second artery, about the size of a crowquill, discovered immediately internal to the upper head of the pronator teres and in the sheath of the median nerve, out of which it was isolated only with some difficulty. On tightening the ligature which was at once applied, the pulsation in the ulnar ceased, and the hæmorrhage in the palm was once more completely arrested. The edges of the brachial incision were now brought together by strips of adhesive plaster, and measures taken for securing perfect physical rest during the ensuing period. 10 p.m.: He had some comfortable and refreshing sleep after the operation—the first for many days. The hand felt warm, but a thermometer could not be conveniently used so as to give the temperature accurately of this as compared with its fellow. There was no pulsation in either vessel at the wrist.

30th.—9 p.m.: Much easier both in body and mind. The right hand and arm were paler than the left, and somewhat numb, but otherwise perfectly comfortable.

May 3.—The radial artery commenced beating at the wrist feebly, but distinctly.

14th.—Both ligatures came away to-day, and the brachial wound had all but healed. The palmar wound and a small one on the back of the wrist, caused by the formation of a slough resulting from pressure, on the contrary, were singularly inactive. For the first ten days after the operation, gradual disintegration, but not visible separation of dead tissue, took place, accompanied by a discharge of thin, dirty, offensive serum; and afterwards, though the wounds became cleaner, there were neither distinct granulations, nor visible repair, nor true formation of pus, the scanty fluid which took the place of the latter exhibiting none of the characteristic corpuscles under the microscope.

26th.—The man went out, looking rather pale, and feeling weaker than before his accident, but with all his wounds soundly healed, and with the natural amount of sensibility in the hand. Indeed, had it not been for some stiffness and contraction of the fingers, he might have gone to his work as usual.

June 26.—At his work; the elasticity of the palm, together with the power of freely flexing and extending the fingers, completely recovered.

Wakefield.

ON THE

TREATMENT OF ENLARGED GLANDS, ETC.,

BY INJECTIONS OF SOLUTIONS OF IODINE AND IODIDE OF POTASSIUM THROUGH A PERFORATED NEEDLE.

By WILLIAM MARTIN COATES, M.R.C.S.,
Surgeon to the Salisbury Infirmary.

In the number of the *Medical Times and Gazette* of July 27, 1867, there appeared a short well-written communication by Dr. Marston, of Devizes, entitled "An Hypertrophied Cervical Gland treated by Injections of Iodine," and in the latter part of the paper is a suggestion that other tumours and enlarged glands, in cases in which the skin has remained unbroken might be treated successfully in the same manner.

This idea has been familiar to me for upwards of two years, and during 1866 and the present year I have tested it largely, with results of a most important nature and extent. Not only so, but I have succeeded in curing strumous and cold or chronic abscesses without leaving scars, psoas abscess, bronchoceles (cystic and solid), ganglia, enlarged bursæ (including housemaid's knee), thick nævi, strumous disease of joints, an encysted tumour; and in one remarkable case of strumous abscesses, strumous disease of, and suppuration in, the middle joint of the forefinger, great thickening of the first metatarsal bone, and of the fifth metacarpal bone, every vestige of disease disappeared under this treatment, aided by iodide of potassium, cod-liver oil, and iron, administered internally. The injections were thrown into the midst of each locally affected part in June, 1866. The child is perfectly well, and what is very interesting in this case is, that there is perfect motion of the once diseased and suppurating joint of the forefinger.

In July, 1866, I injected into masses of enlarged glands of the neck undiluted compound tincture of iodine in the Salisbury Infirmary in two patients, with the effect of dissipating the enlargement in one case and of diminishing it in the other. In neither of these cases was there ulceration. I also injected, in August, 1866, the same preparation into an enlarged post-cervical gland of a gentleman who applied to me for strumous abscesses under both jaws. The gland was of the size of a walnut. It disappeared without suppuration.

In February, 1867, I had the following case under my care in the Salisbury Infirmary:—

A dark strumous-looking boy applied with a mass of diseased glands under the base of the lower jaw, on the left side, with an unhealthy ulcer of the size of a crown-piece. I directed a drachm of the compound tincture of iodine to be injected into the midst of the mass by means of Wood's syringe. This was done by the House-Surgeon. The boy was brought to me two days afterwards, as the swelling and pain of the diseased part were great. A week's poulticing relieved the tension; the glands gradually diminished in size, the ulcer took on healthy action, and in eight weeks it had cicatrised, and now the boy is quite well.

As I am preparing to publish at length the results of this treatment, and have abstained thus long with the view that any paper or treatise I may write may be as complete as possible, I will merely add that I anticipate success in some other diseases in which I have had no opportunity of testing the treatment. I will mention two—ovarian dropsy, and such fibroid tumours of the uterus as can be easily reached by a perforated needle.

It will be seen by reference to the *Lancet* of March 3, 1866, p. 225, that I have already published the success of this treatment in "spina bifida, ranula and glandular tumour of the mamma with cysts." Several of my Medical friends are trying this my mode of treatment, and I am sanguine of having at my disposal, at no distant period, a large mass of evidence on this important subject.

Salisbury.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE ROYAL INFIRMARY, BRISTOL.

One of the most important of our provincial cities, and the seat of a Medical school, Bristol is in a better position than most towns of its size with regard to Medical charities, possessing two capital Hospitals—the Royal Infirmary and the General Hospital. The latter we shall have again to refer to; in the meantime we confine our observations to the former. Bristol is partly built on the flats by the side of the River Avon, partly on the hill rising above these, which is crowned by Clifton. The Infirmary is situated close at the foot of the principal hill, but, being built on one of its own, is considerably elevated above the level of the lower part of the town. It is unfortunately surrounded by buildings on three sides, and being built towards the end of last century, its ventilation, although good, is not so complete as could be desired. Like most of the Hospitals built about that time, it resembles in shape the letter H, and is three stories high in front. A passage extends from one end of the building to the other, and from this the wards open on either side; they are thus lighted (at least, those in the central building are) from one side only, but ventilators open into the passage on the other. Outside the Hospital is the museum, containing a variety of interesting specimens, particularly a fine collection of urinary calculi. Behind the Hospital, and on a lower level, are the out-patients' rooms, extremely close, badly ventilated, and ill-arranged, whilst between the male and female out-patient rooms lies the dispensary, which we found in a very disorderly and dirty condition, there being in one corner a number of little stacks of papers containing ointments ready for dispensing, and, it being warm weather, presenting a most disagreeable appearance. These matters could easily be improved.

Turning, however, to the wards, we found a very different state of things, for many of the modes of practice we saw

there were most ingenious. We noticed several cases of eye disease under the care of Mr. Prichard, but none presented any point of unusual interest. Being situated within easy sail of the Welsh coast, many cases of interest come over from the mining districts to Bristol, which has on this account a much greater variety of accidental injuries than would be likely to occur in the manufacturing processes which go on within itself. One thing struck us in connexion with this—viz., the great number of cases of necrosis, particularly of the lower extremities, we encountered—not, as a rule, extensive or giving rise to very much distubance, yet so common as to be rather remarkable. It was suggested that it might depend on the injuries inflicted in the mining districts, combined with a strumous constitution. We are not aware whether similar injuries are equally common in the midland and northern counties. Under the care of Mr. Prichard, we observed a case of compound fracture of the radius, where a considerable portion of bone had been removed. Chloride of zinc had been applied to the wound, and the case was doing remarkably well. In many other cases in this Hospital we observed that the chloride of zinc had been sometimes used to the surfaces of wounds after the removal of some portion of the body, more frequently probably to wounds of other descriptions, and in all instances the Surgeons spoke well of its effects. Another practical hint we got from Mr. Prichard's practice was the use of caustic potash in enlargement of the tonsils. Medical men well know that patients will go on with diseased tonsils, having perpetually recurring sore-throat, yet obstinately refusing to have them removed from mere dread of the knife. As a rule, therefore, Mr. Prichard prefers potassa fusa to the knife in all cases of enlargement whether of the tonsils or the uvula. Only a slight application is required; the pain is inconsiderable, and the results all that could be desired. Again, in the treatment of carbuncle—not always an easy task—Mr. Prichard also employs potassa fusa, not to destroy the whole bulky mass, but only touching the apex of the tumour, so as to cause a slough. The remainder of the swelling is painted over with iodine, and the whole rapidly disappears. As a rule, he prescribes iron and chlorate of potass to be taken internally at the same time.

For the remedy of ununited fractures, Mr. Prichard's plan is ingenious. He cuts down upon the ends of the bones, removes their extremities, approximates the raw ends, and fastens them together by twisted horsehairs passing through holes drilled in the bone; the horsehair ligatures are fastened by a slip-knot, and allowed to remain until the wound heals. They give rise to remarkably little irritation. Mr. Hore introduced the practice here of using horsehair sutures, whose use is said to be attended with considerable advantage. A good stout horsehair is passed through the eye of a needle, and used after the manner of an ordinary suture; it is certainly much cheaper than silver wire, and is said to promote the healing of the wounds quite as much. Another method of bringing together the edges of a large wound struck us as still more valuable, especially if combined with acupressure for the arrest of hæmorrhage. It was introduced by Mr. Leonard, and consists of a large pin, such as that used for acupressure. This is passed through a piece of cork, and then through the edges of the flaps; another piece of cork is then thrust upon the pin, and the flaps thus approximated. The advantage consists in having the pressure of the suture removed from a line, which sometimes causes ulceration, to a broad flat surface, which is not likely to have the same effect. Some of the Surgeons use a thread twisted round the pin outside the corks, as in harelip suture, but this is unnecessary if the cork be tolerably thick. After the edges have been brought together, the projecting portion of the pin may be cut off by pliers.

Carbolic acid has recently been introduced into practice here, both by itself and along with other substances. A lotion consisting of one part of carbolic acid to seven of glycerine has been found a useful application to stumps. That carbolic acid should not be employed in its pure and concentrated form, the experience of the Surgeons here demonstrates, for in two cases of lacerated wound, one of the arm, the other of the hand, to which carbolic acid was applied, there was much sloughing at the part, and extensive inflammation higher up the arm. Talking of fractures leads us to mention that Mr. Leonard usually treats them by the American plan of elastic extension by bands of india-rubber or by pulleys. The only thing objectionable in this plan, as employed here, is the fastening on of the side straps by which extension is effected—say of the lower extremity—by a bandage instead of by strappings of adhesive plaister. The latter plan is far neater and more enduring, for the side straps do not then slacken or give way. Mr. Bernard, again, is in favour of more rigid appliances, and uaually employs a starch bandage. Ordinary cases of fracture he frequently sends out of Hospital within a week of their admission.

Many men who live in rough neighbourhoods may have been troubled with obstinate cases of broken head to which no application could be conveniently made, and which persisted in bleeding: sutures they may have dreaded, and straps they could not apply—what then to do? The plan they adopt at the Infirmary at Bristol is simple enough; they gather the hair on either side of the wound into two tufts, which they tie together by a simple knot, thus thoroughly approximating the edges of the wound. Over this simple knot, and parallel with the wound, a little bit of stick is laid down, and a second knot tied on it, which is held firm by means of a thread fastening it to the stick, as in harelip suture. Water dressing, or nothing whatever, may subsequently be applied.

Of curious cases two very striking ones came under our observation. In one, a man under Mr. Clark's care had fallen from a hayrick so that his knee fell on the blade of a knife, which completely divided the patella and laid open the knee-joint. He was brought into Hospital with the cavity of the joint completely exposed; but the two portions of the patella were brought together and fastened by silver sutures passing through the bone, the edges of the wound itself were approximated by horsehair sutures, and the limb laid on a straight splint. Irrigation was constantly kept up, and the patient went out perfectly well, and with a perfectly mobile joint.

Under Mr. Bernard we noticed a man who had been working at the bottom of the shaft of a coal-pit when the cage was let down, which compelled him to assume a bending posture, but which, still resting on his back, prevented his escaping from beneath it, notwithstanding all his endeavours. Trying to wrench himself free, he felt something give way in his back, and his legs became paralysed. Three months after this injury he was brought to Bristol Infirmary, still weak, but not paralysed. On examination it was found that the last dorsal vertebra was turned round on its axis to the right, so that its left transverse process was nearly in a line with the spines of the other vertebræ. The man was well, but was rather shaky on his legs, and suffered a good deal from tingling in the right one.

There was at the time of our visit a case of considerable interest under the care of Mr. Prichard. The patient came to Hospital with a large *fibroid* polypus of the nose. Evulsion was twice tried, but was followed by such intense hæmorrhage that it had to be abandoned. Subsequently, insufflation of tannin was tried, and with marked success, for the tumour rapidly subsided in size, and was, at the time of our visit, nearly well.

In the Medical wards we saw many cases of interest. Some that appeared to us to be rather unusual were certain cases of typhoid, not an uncommon complaint in Bristol. Those to which we refer, and which had been rather common for some time, were cases in which constipation, instead of diarrhœa, had been the rule. Nevertheless, when examined after death, the usual marks of intestinal implication, and even of ulceration, were noticed. Milk was mostly used as diet. Stimulants were rarely given, and the bowels were moved with small doses of castor-oil. Recently, under the care of Dr. Brittan, there came a case of much interest. The patient was a woman of drunken habits, who came in complaining of pain in the left side of the chest. The exact nature of the case could not be well made out until her death, which soon occurred, when, on investigation, a needle was found projecting through the pericardium to a considerable depth, and corresponding with it a deep groove in the walls of the heart worn in it by its to-and-fro motion.

The thermometer is extensively used in this Hospital, more especially by Dr. Long Fox, and we append some observations by him on the subject:—

"The thermometer is useful in diagnosis, especially in typhoid fever. The comparatively low pulse at first, with a gradually increasing temperature, separates this disease from typhus, and, indeed, from all other diseases that may simulate it. In obscure cases of acute tubercle, the temperature, though often very high, may fall five or six degrees in the course of a day, and again recur to a high point; and there is no regularity in these remissions. The thermometer is of the highest importance in diagnosing phthisis at a period before the

stethoscope is of much use, and probably before the formation of tubercle in any organ.

"A return to a normal temperature in phthisis will tell us more surely of the quiescence of the disease than will the stethoscope, or, indeed, the study of all other general symptoms together. A temperature of 104° in acute rheumatism indicates great danger, and may exist when all pain has left the joints, and when there is no cardiac complication.

"In acute pneumonia, a temperature of 101° indicates severity, but not necessarily danger. The thermometer may show the normal temperature of the body at the time at which hepatisation is at its height.

"There seems to be no relation between temperature and loss of weight. Thus, in tuberculosis loss of weight will be accompanied by a high temperature, whilst in uncomplicated diabetes a similar loss of weight may occur with a normal temperature. Nor can any definite relation be made out between temperature and the amount of urea excreted. Indeed, so little does a high temperature correspond with a large amount of urea excreted (even when regard is paid to the food taken) that the thermometer affords us an additional reason for believing that the excretion of urea is very far from being an accurate measurement of the chemical change in the nitrogenous portions of the body."

Dr. Beddoe had under his care many valuable and interesting cases. He tells us that in cases of acute rheumatism he adheres to the alkaline plan, giving usually gr. x. of the nitrate and gr. xx. of the citrate of potash, in two ounces of water, every two, three, or four hours, during the first few days. With this dose he sometimes finds it desirable to combine a carminative. He has only twice observed a cardiac complication to arise after a patient has been brought distinctly under the influence of the alkali, though his number of cases has been very considerable, having sometimes as many as twelve under treatment at once. Peri- and endocarditis do, however, frequently make their first appearance during the twenty-four hours following admission, owing probably to the exposure of the patients during their transference from home to the Infirmary.

Dr. Beddoe states that, as a rule, he has not much trouble with pericarditis—blistering and a continuance of alkaline diuretics, followed by iodine and quinine, suffice for the present treatment; but, of course, such cases frequently turn up afterwards in the out-patients' room.

Beer is the usual drink of the Bristol population, and accordingly, while gout is not uncommon, and gravel likewise, albuminuria and delirium tremens are probably much less frequent than in London and Edinburgh. In the treatment of dropsy, from whatever cause, Dr. Beddoe finds the hot-air bath, administered by means of the lamp, extremely convenient and useful. In delirium tremens he is in the habit of using cannabis indica in considerable doses, but not at too short intervals. On this plan he has never lost a case. He always withholds alcoholic stimulants, unless they seem very strongly indicated by the quality of the pulse. In enteric fever his treatment generally consists in giving hydrochloric acid, well diluted, according to Dr. Chambers's plan; he adds quinine to it when the patient begins to improve. He does not interfere with moderate diarrhœa, but checks it, usually with chalk, catechu, and opium, if it becomes urgent. In the rarer cases in which constipation endures two or three days, he generally gives very small doses of castor oil, thinking the formation of scybala harmful. Milk and ice are given abundantly, beef-tea less so, and wine never in the early stages, but in the later ones, when called for, he gives it in moderate quantity. A few months ago he had a case of repeated relapse in enteric fever. A policeman was admitted with a distinct history of two successive attacks of enteric fever. Mr. Bernard, Surgeon to the police force, mentions that both attacks were well marked. He had not yet returned to his duty when the attack commenced for which he was admitted. His pulse was very quick, but full; he perspired copiously, and had a hectic flush and hacking cough; and the respiration was slightly rough towards both apices. Dr. Beddoe said they had to do either with a relapse of fever, or with a breaking up of typhoid deposit in the lungs, with the symptoms of acute phthisis, but that the latter was more probable, and ordered five-grain doses of quinine. The pulse came down from 130–140 to 70–80, and continued at about that rate, but the sweating was checked. In other respects, the patient ran through the ordinary course of enteric fever, with spots, moderate diarrhœa, etc. The man did well; but when during his convalescence it was tried to lower the doses of quinine, the sweats immediately returned. He was accordingly kept on the five-grain doses until he was perfectly well.

Having formerly seen cases of acute phthisis arrested, under the hands of Parkes, by the exhibition of large doses of quinine, Dr. Beddoe has followed the plan whenever he has had the opportunity, and not unfrequently with at least temporary success. At the time of our visit, there was under the care of Dr. Beddoe an interesting case of epilepsy, in which the fits were followed by temporary aphasia and right hemiplegia. There is a history of blows on the head previous to the first fit; but unfortunately the blows were on the right side of the head.

Dr. Beddoe employs the hypophosphite of soda in certain cases in which some degeneration of the nervous tissues may be suspected, and in several such cases the medicine has appeared to be very serviceable; but clinical proof of this would be difficult. In scabies the styrax liniment (equal parts of storax and olive oil) or baths of sulphuret of potassium or calcium are employed in this Infirmary; and instead of chloroform, a mixture of two parts of it with one of ether is employed as an anæsthetic.

Many men may have found it difficult to get cod-liver oil taken, owing to the disagreeable eructations which follow its exhibition and its tendency to cause vomiting. Dr. Long Fox tells us that these objections are perfectly obviated by the use of a small quantity of ether along with the oil.

Before taking our leave of this institution, we beg to return our thanks for the kindness and attention of all the officials, particularly to Mr. Board and Mr. Bernard, senior and junior House-Surgeons.

THE LONDON HOSPITAL.

COMA FROM MENINGITIS SIMULATING APOPLEXY.

(Under the care of DR. HUGHLINGS JACKSON.)

When a patient dies in an "apoplectic" condition, we may find nothing in any part of his body which will account for his illness, or we may discover a large clot of blood in his brain. Besides, we sometimes meet with striking post-mortem appearances, the possibility of which could scarcely be expected to occur to us during the patient's life. We relate the following case from Dr. Hughlings Jackson's notes:—

A man, 41 years of age, was brought by two policemen to the London Hospital at 4 p.m., March 13, 1867. The policemen had picked him up in the street, and "could make nothing of him." With their help he half walked, half dragged his legs into the Receiving-Room. Mr. George Mackenzie, who supplied me with most of the following particulars, says the man could not be made to to speak, and did not appear to understand anything. There was no local paralysis; the pupils were normal. He was very busy with his hands, and at first tried to prevent a stethoscopic examination, but afterwards kept tolerably quiet. His urine contained albumen. Six hours afterwards he was completely comatose. His breathing was stertorous, his face pale and covered with a cold sweat, and his pulse was rapid and feeble. Twelve hours later I, for the first time, saw the patient. He was in the same general condition (pulse 140, resp. 54). His belly sank in inspiration, the lower part of his chest being everted in sudden jerks. The eyes were observed to be turned to the right side, except that now and then, when his respiration ceased altogether, the eyes came to the middle line. The pupils were presumably unaltered. An ophthalmoscopical examination showed no abnormal appearances whatever. He died March 14, at 6 p.m.

I agreed in the opinion Mr. George Mackenzie had formed, that the most likely thing to have happened to a man under such circumstances was cerebral hæmorrhage. But at the autopsy we found, to our surprise, the whole of the subarachnoid pia-mater the subject of inflammation. I say the whole advisedly, as, though there was more purulent lymph on some parts than others, the whole surface was of a yellow colour from purulent infiltration. It did not extend into the ventricles.

I showed the brain to Mr. Hutchinson. He said that such general subarachnoid inflammation was usually the result of injury to the skull, but this had been most carefully looked for, and yet no fracture nor crack was found. Since, however, Mr. Hutchinson added that the injury had been in some cases a slight fissure, easily overlooked, the whole base of the skull was, at his suggestion, removed, macerated, and cleaned, but still no flaw was detected. The kidneys and lungs, except for congestion, appeared healthy.

*

There was, we found at the inquest, a history of an injury, but the account his wife gave, had it been received before death, would have countenanced the diagnosis made, for his wife had left him two hours before his admission into the Hospital, as well as usual. Still there was a history of an accident. In a railway collision, December, 1865, he had his front teeth knocked out, and his lower jaw broken, and from that time had been "a different man," and had been given to drink. Except for severe pain in the head for a few days before his death, he was as well as usual, eating and sleeping well. He had for a week complained that his wife's face looked black, and this he ascribed to failing sight.

There is no note of the temperature in the above record; but a high temperature would not have enabled us to say the case was one of meningitis, nor even to say it was not one of cerebral hæmorrhage. It might have misled to the diagnosis of uræmia. I have known a temperature of 103° in a young man who died, with healthy kidneys, of "simple apoplexy;" and Dr. Bäumler has given me notes of a similar case in which the temperature was as high as 109°. In a case of meningeal hæmorrhage, a temperature taken for me before the patient's death by Mr. Frederick Mackenzie was as high as 107°.

The error in diagnosis in this case was the making one at all on such slender evidence. Yet it was scarcely a mistake, for I still think *the most likely thing* to have happened to such a patient was cerebral hæmorrhage; and I remarked at the bedside that when a man is found in the streets in such a condition as this patient was found, or one already deeply comatose, universally powerless, and presenting no signs of paralysis, we cannot predict from what he is suffering, except by relying on blind generalities. Even if we doubt the accuracy of the wife's statement as to her husband's previous condition of health, it is still somewhat remarkable that he should have been well enough to go out the day before he died. I say *somewhat*, as a colleague, whose opinion on all Medical matters I highly esteem, observed that "people often go out in delirium, and die when out."

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Medical Times and Gazette.

SATURDAY, NOVEMBER 2, 1867.

SIR JAMES Y. SIMPSON AND HOSPITAL MORTALITY.

It may be very safely laid down as a rule that any speech or paper from Sir James Y. Simpson is sure to be worthy of particular and careful attention. No matter what the subject may be, whether his own special province of the science and art of Medicine, some point in Surgical treatment, anæsthesia, hygiene, antiquarian research, or what not, it is certain to be treated with eloquence and skill, and to be illustrated by no common knowledge and learning. And the address recently delivered by him as President of the Public Health Section of the Social Science Association assuredly forms no exception to the rule; it is a very able and eloquent paper, and well deserves to be, as it undoubtedly will be, widely and attentively read. Yet we do venture to take exception to a part of Sir James Simpson's address, not, however, as being without practical aim, nor because it is strongly coloured, but because, while very strongly coloured—more so than can be quite justified by proofs, perhaps—its practical teaching is not enforced with sufficient clearness. Part of the address is devoted to the question whether the sick are more successfully treated in Hospitals or in their own homes; "In which are the chances of recovery the greatest? Are Hospitals banes or blessings?" In answering these questions, Sir James Simpson compares the mortality in Obstetric, in Surgical, and in Medical Hospitals with that attendant on similar affections treated outside Hospitals, and he proves, or seems to prove, that the rate of mortality is fearfully increased by treatment within Hospital walls. He first states the case as affecting the Obstetric Hospitals, and illustrates it by copious statistics; but when he comes to speak of the dangers and evils of Surgical and Medical Hospitals, he has, as he himself confesses, no data to go on, and he is obliged to rely on general impressions and beliefs. The hasty or careless reader, however, and we fear that it must be acknowledged that the majority of readers—at any rate, of non-professional readers—are hasty or at least not critical, impressed by the powerful array of facts against the Obstetric Hospitals, assume that the case is equally proved against Medical and Surgical Hospitals, although as yet nothing has been actually proved against them. We need not labour to show that such Hospitals are an absolute necessity. It would be simply impossible to treat at home the cases of injury, disease, and illness that crowd our city Hospitals. The only real question is—Are these made as healthy as possible? Now, no one will deny, we think, that the most badly arranged and managed Hospital that can be found now-a-days is infinitely superior, in space, quiet, cleanliness, and ventilation, to the dwellings of our labouring poor, where one finds not only every floor, but every room on every floor, from the basement to the attics, occupied by a separate family. Mr. Savory, in a very valuable essay on Pyæmia, remarks that, as to cleanliness and ventilation, "our Hospitals, in comparison with even the better class of private dwellings, are not, to say the least, under any disadvantage;"(a) and Dr. Guy considers that in most of our Hospitals sanitary arrangements are as near perfection as possible.(b)

And while these advantages, with all the vast gain in diet, nursing, and Professional skill, are indisputable, we have not yet any clear proofs of any total increase of mortality from Hospital air. Even with regard to such a disease as pyæmia, so commonly set down as a disease of Hospitals, the indictment is not proved. In the article above alluded to, Mr. Savory states that he is inclined, as also is Dr. Wilks, to question the correctness of the notion which has prevailed that this is a disease of Hospitals; and he shows that patients are often admitted into Hospitals already the victims of this disease. Again, with reference to Medical cases, it would not be at all difficult to adduce reasons for believing that, in the case of even the most infectious diseases, Hospital treatment may be more successful than treatment in the homes of the poor. One very recent proof of this may be quoted:—During the late epidemic of small-pox in Marylebone, among cases treated in their own homes the mortality was very nearly 15 per cent., while in the cases treated in a well-ventilated iron Hospital erected in the district it was only slightly over 7 per cent.

Sir James Simpson's argument was intended, no doubt, to prove that Hospitals should be small and scattered; that "our Hospital abodes should be rooms, not wards; and our Hospitals themselves villages, not palaces." And no doubt much can be said in favour of small Hospitals and small wards; these are, as the patients say, more home-like, and the patients are less often and less greatly disturbed and agitated by scenes of distress, suffering, and death. But proof is still wanting that in the Cottage Hospital system the mortality is reduced. In the report we published not long ago on Cottage Hospitals,(c) it was shown that in 818 Surgical cases treated in these, "over

(a) *St. Bartholomew's Hospital Reports*, vol. iii. p. 74.
(b) *Medical Times and Gazette*, April 29, 1867.
(c) *Ibid*, August 3, 1867.

a period of eight years, the death-rate was almost identical with that of the metropolitan Hospitals." It may be doubted also whether it would be possible to introduce the Cottage Hospital system into our large cities.

When we say there is no clear proof of *increase* of mortality from Hospital air, we do not say that there is *no* mortality from Hospital air. Patients do die of pyæmia, which they contract in Hospital wards, and from scarlatina and other infectious diseases admitted into general wards; and the out-patient rooms at most Hospitals and Dispensaries are regular "exchanges" for exanthemata. Yet the conclusion to which we have been forced to come is, that the *total* mortality of Medical and Surgical patients treated in Hospitals does not display an increase over that of the same rank of life treated in their own crowded dwellings.

We have said enough to show that the doctrines of the learned Edinburgh Professor require some qualification, and it is very desirable, we think, that Medical men should make themselves well acquainted with the whole question, for his address may be put to a use which he probably never contemplated, certainly never intended. Laymen have remarked to us, "So Sir James Simpson has shown that your fine Hospitals only increase the mortality!" and we have already heard of one instance in which objection to a grant in aid of a London Hospital was founded on the "fact" that "it has been proved by Sir J. Y. Simpson that Hospitals are a mistake, and only increase the dangers and fatality of sickness."

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

The Return of Births and Deaths for the quarter ending September 30 shows that children were born in the three months at the rate of 35, and persons died at the rate of 20, per annum, for every 1000 of our present estimated population. The average annual birth-rate of the season is 33⅓ per 1000, so that there has been an advanced fecundity equivalent to an excess of about 10,000 births in the quarter last ended. This augmentation is no doubt the natural result of the high marriage-rate which prevailed for some time previously. The increased birth-rate is apparent in each of the eleven groups of counties into which England is divided for registration purposes, the only counties showing a decrease being Northampton, Cambridge, Cornwall, Northumberland, and Monmouth. In the quarter ending June 30, the marriage-rate was below the average of the season, a result which confirms previous experience of the depressive influence of a high price of the staple article of food on the tendency to marriage. The counties of Hants, Bucks, Northampton, Bedford, Cambridge, Norfolk, Dorset, Rutland, Lincoln, and Chester, are exceptions to the otherwise universal rule of diminished marriages.

The increase of pauperism is another indication of the dearness of bread; the average weekly numbers receiving relief have increased from 836,761 to 838,508, and 873,815 in the last three September quarters, coincidently with an advance in the price of wheat from an average of 43s. 3d. to 51s. and 65s. 4d. per quarter. The price, also, of that valuable antiscorbutic, the potato, has risen from 85s. to 97s. 6d. and 127s. 6d. per ton—a fact which should be borne in mind in connexion with an increased mortality from scorbutic disease, which is apparent in the later returns of the causes of death.

Notwithstanding the ungenial and changeable weather which prevailed during July and the first week in August, the public health has been above the standard average of the season. So low a death-rate as 20 per 1000 has not been reached in any quarter since the remarkably healthy period of 1862. Dividing the population into two groups, the eleven millions of people inhabiting the chief towns experienced a death-rate of a little over 22 per 1000, while among the remaining nine million inhabitants of the smaller towns and rural parishes the rate was 17 per 1000. In the September quarter of 1862 the town mortality was at the rate of 19·8, that of the rural districts 15·7 per 1000; in the corresponding seasen of the succeeding four years (1863 to 1866) the average rates for the two groups were 24 and 18 per 1000; so that by comparison with this average the quarter just ended shows an improved condition of the public health equivalent to a saving of 18 deaths in the urban and 12 in the country districts on every 10,000 of their respective populations. A result such as this is one of the best possible tests of the great value of sanitary works in diminishing the abnormally high death-rate which for so long a time was acquiesced in as inseparable from the agglomeration of large masses of people in towns and cities. That much more remains to be done; that, in short, the possibility of reducing the contingency of death to a ratio of 17 per 1000 (or what is technically known as the "healthy districts' rate") is becoming more and more apparent, may be demonstrated by reference to the death-rates of the cities of London and Bristol during the last quarter. In neither of these do the sanitary conditions approach perfection; yet their death-rates were only 21 and 19 per 1000. In Manchester, on the other hand, a mortality of 32; in Leeds, of 29; in Newcastle-on-Tyne, of 30; and in Birmingham and Hull, of 26 per 1000, sufficiently indicates the presence of evils which are remediable by proper attention to cleanliness and the laws of health. That it should be in the power of obstructive members of town councils to condemn a proportion of their fellow-citizens to untimely death by procrastinating the appointment of health officers and the execution of necessary hygienic improvements, is an anomaly which must soon be swept away. The provisions of the Sanitary Act, by their permissive character, put all local authorities on their trial; should these fail, compulsory legislation will inevitably be brought into play for the protection of the community at large.

We have said that the saving of life has been rateably larger in the towns than in the rural districts; and here, again, there can be no hesitation in connecting this fact with the greater attention to sanitary matters in the one than in the other. Nuisances which would speedily decimate the population of a town are suffered to exist in country villages and hamlets because there is nobody willing to incur, or specially authorised to incur, the trouble, annoyance, and possible risk of proceeding against the offenders. Yet how necessary some such steps are, may be gleaned from the notes appended by the local registrars to their quarterly returns.

In the little western fishing town of Brixham, out of a total of 38 deaths, 14 were caused by typhus and typhoid fevers. In Fazeley, a subdistrict of Tamworth, the same diseases caused 10 out of 49 deaths. Other places show also an undue mortality from causes which Dr. Buchanan has found almost universally to exist in connexion with organic impurities that are removable by simple hygienic measures. To the agency of diseases coming within the easiest reach of prevention, it is alone (in all human probability) due that the average death-rate of the rural districts in the healthiest quarter of the year exceeds by 7 per 1000 that of the city of Salisbury, where the mortality was formerly high, but, by efficient works of drainage and water supply, has been reduced to the remarkably low annual rate of 10 per 1000 in the last quarter.

The conclusion, indeed, which follows from an attentive study of the facts relating to the different parts of the country, as given in the Registrar-General's return, is in the highest degree calculated to encourage the prosecution of those measures which recent legislation authorises for the suppression of conditions inimical to health. "Public health is public wealth," said Sir James Simpson the other day at Belfast, and it only needs that this axiom be thoroughly and widely appre-

ciated to bring about a gradual but certain return to a state in which the natural limits of human life will not in the future, as in the past, be diminished in England to little more than half.

OUR STUDY FIRES.

"Ex fumo dare lucem;"—to define a comfortable degree of heat in a room is not to be done by any reference to a thermometrical scale; otherwise, a stove would answer our purpose, and a thermometer might be our guide. Stoves, or other warming apparatus, if properly managed, are adapted for large public buildings, open corridors, and such places as grate fires can only inadequately warm; but grate fires we must have in our homes, and especially in our *sancta sanctorum*.

Why we prefer the open, cheerful, blazing fire to all other means of warming our rooms is simply from our instinctive love for everything that resembles, however humbly, any natural object with which we have all our lives associated pleasurable feelings; even the flower patterns of our carpets and our hearthrugs charm us. Imitations of nature, however, in general only appeal to one of our senses at a time; but our fires appeal to two—those of touch and vision; for, like their great prototype, the sun, their flames radiate their genial light on all around, giving to the sight an idea of glowing warmth, which is realised by the actual impression conveyed to us by our cutaneous nerves.

In a late number of this journal, when we advocated the consumption of the smoke arising from the fires in our private houses, we did so because the waste of fuel consequent on defective combustion is not only a private loss, but a gigantic public nuisance. But as all reform should begin at home, let us look at our own firesides, and see if we cannot get both light and heat from what now goes up our chimneys and annoys our neighbours. Ordinarily a fire is lighted from below, and when the coals are once ignited, smoke ascends voluminously until the very top layer is at a red heat, shortly after which the fire requires replenishing, fresh coal is thrown on, and more smoke is the result. Now, it may be laid down as an axiom that wherever there is smoke there is waste. Manufacturers, however, have not been happy in their endeavours to provide for the public smokeless grates; and certainly we do not wonder at it when we consider the small amount of encouragement that is given to inventors both by the Government and the public generally.

A firegrate, in order to fulfil our requirements, ought to be so contrived as to admit of the fuel being lighted on the top, and supplied continuously from below. The draught through the live coals ought to be capable of regulation so as to enable us to leave the fire for a considerable time without fear of its going out, and on our return to revive it with facility. Nothing can be more discomforting than to return home to our study, fagged and weary, and find just one or two burning embers in our grate, incapable of revival without the assistance of servants, who, in nine cases out of ten, in their endeavours to make up the fire, most effectually make away with it altogether.

There are very few days in the year when we are unable to bear a subdued fire in our study, which is not unfrequently a miniature laboratory, for we are often called upon to perform experiments which would be out of the question had we not a grate wherein fuel could be easily pressed into our service. One grate that seems to us calculated to fulfil the requirements we have mentioned is manufactured by Messrs. Edwards, of Great Marlborough-street. This grate is provided with a chamber below the bars, having a bottom supported by a rack capable of being lifted by a lever, which is inserted, when required, into a small hole just above the hearthstone. This chamber is filled in the morning with a supply of coal sufficient for the day's consumption, so that no coal-scuttle is required, and a servant has no chance of smothering the fire out. The lighting takes place at the top, the fire gradually burning downwards, and all that is required when fresh fuel is needed is gently to lift the bottom by means of the lever, so that a layer of fresh coals may be brought within the range of the draught through the lowest bars, by which arrangement the smoke consequent on ignition is carried directly up through the red-hot fuel above, and immediately consumed without loss of heat and with a cheerful smokeless flame. So little smoke, indeed, condenses in the chimneys leading from these grates that they do not (or ought not to) require sweeping for years. This in itself is a grand recommendation, and is very significant how much might be done if the principle of economising our fuel by consuming it entirely were only universally adopted. Then, indeed, might we indulge in the hope that our public buildings would no longer be defaced, that smoke fogs would pass away from us like a cloud on a summer's day, never to return, leaving the air to

> Nimbly and sweetly recommend itself
> Unto our gentle senses.

An average house, occupied by a family of a dozen persons, consumes about a ton of coals a fortnight in the winter and about half that quantity in the summer, our kitchen range engrossing nearly half of the entire quantity of fuel expended during the year. It is, therefore, most desirable that economy should extend to our cooking fires; but we must leave this branch of the subject for the present. Let us, however, begin the reformation in our studies, and, after testing its efficacy there, extend the comforts of a smokeless grate to every other chamber in our houses. There is also another great advantage attending Edwards' grate—the rapidity with which, by means of the sliding blower, a fire that has been nearly extinguished through want of attention can be made to burn up. This blower also facilitates the first lighting of the fire, so that what is often a tedious process is rendered a quick and easy one by its use. To be able to regulate a fire without the interference of servants is a great desideratum not only in our studies but in our waiting-room. What can be more miserable than for a nervous delicate patient to be shown into a room cold and cheerless from a mismanaged fire, or, even worse, no fire? As a rule, servants know nothing about fires, for they either make them as if they intended to roast those who use them, or else they utterly neglect them, and then put them out by loading on coal just as we want them. Fortunately, however, these smokeless grates dispense with servants altogether, for when once lighted we can manage them ourselves. Constructed, therefore, as these grates are on the principle introduced by Mr. Cutler, with the lifting plan of Dr. Neil Arnott, we hope that the first step towards a great improvement has been made. A bad fire is a miserable piece of economy, and is always the source of discomfort, especially when two or three persons, as in the case of families, occupy the same room.

There is another grate manufactured by Mr. Young, of Queen-street, Cheapside, which supplies the fuel from below, and it has the advantage of admitting an unlimited amount of coal, so that the fire need never be allowed to go out. With the actual working of this grate we are not so well acquainted as with the one mentioned above; but our friends speak highly of it, and we doubt not it would prove most valuable in the sick room, where the renewing a fire is often the source of annoyance to the patient and those in attendance.

We hope our Professional brethren will see the necessity of joining us in our raid against smoke, and commence in their own homes to adopt means of consuming it, for we can assure them that by so doing they will add materially to their own comfort, besides setting a good example to the public, which is always to be preferred to precept, however excellent it may be.

Dr. John Murray has been appointed Chloroformist to the Middlesex Hospital.

THE WEEK.

TOPICS OF THE DAY.

In another column we publish a second letter from Professor Laycock on the question of the sanity of the murderer Bordier. We are always sorry to differ from the distinguished Edinburgh Professor, but on this occasion we are compelled to do so, although we cannot confess ourselves "laymen wholly inexperienced in mental diseases." If Dr. Laycock, and persons who reason as he does, place in one and the same category the case of the atheistic dastardly Frenchman, who cut the throat of a woman with whom he criminally cohabited because he happened to be ill and poor and she had threatened to leave him, and that of an innocent person who, under an insane delusion, accuses himself of having committed a crime with which he had not the remotest connexion, we are content most courteously to acknowledge that we are "not of their school," neither have we any wish to commence "learning the first rudiments of their method."

The present indignant outcry against the retailers who are keeping up a high price of provisions will, we fear, have but little effect in mitigating the social disadvantages under which the professional classes more than any other are just now labouring. The saving of a few pence on a dinner is a very important matter for the artisan or the lawyer's clerk, but at the year's end it would not add much to what was formerly a fair professional income. A writer in the *Saturday Review* last week asserted the undeniable fact, that the head of a family who is in the receipt of a fixed professional income of a thousand a year has become within the last few years a really poor man. There is no doubt that the discovery of gold in so many parts of the world, and the extraordinary prosperity enjoyed by the mercantile and trading classes, have had a tangibly injurious effect on the material prosperity and relative position of the professional order, especially of that part of them who are in receipt of moderate incomes, which they have no power to increase. The guinea which a patient places on your consulting-room table does not represent more than one-half the quantity of necessaries and comforts of life that it did in the days of Radcliffe and Mead. If it be replied that the people who pay guineas have increased tenfold, it is met by the fact that the Physicians and Surgeons who take them have multiplied twentyfold. Whilst every business and trade has become more lucrative, the incomes of Medical men have either remained stationary, or have, in consequence of the discontinuance of the practice of pharmacy, decreased. Confronting this state of things we have not only the fact that every requisite of civilised life is gradually increasing in price, but also that, with the spread of wealth and facilities for foreign travel, a style of living unknown to former generations has been introduced, which it is incumbent on every person who does not wish to lose his position in society to maintain.

The general subject of Professional incomes is gloomy enough, but it is eclipsed by that of the payment of Poor-law Medical officers. In a recent number of the *Evening Star*, there appeared a letter bearing the well-known signature of the "amateur casual," which descanted in well-sustained irony on the extravagant liberality of the guardians of Lambeth, who advertise for a Medical man to attend and provide medicine for the poor of a thickly populated district, extending "from the Vitriol Works, Kennington, to Coldharbour-lane"—a short two miles—and offer him the munificent salary of £75 per annum. But the fact is that this salary is liberal compared with that paid in some of the London districts. From a table constructed on returns made in 1865, we find that in no single metropolitan district—excluding the Workhouses—does the Poor-law Medical Officer receive a fixed salary of more than £200 per annum. In very few instances is it £150; in the vast majority it is under £100; whilst in many cases £50, and in some £30, and even £20, are paid to the members of a learned Profession for the care of the health of the poor. In the southern district of St. George-in-the-East, with a population of 8387, and extending over an area of 86 acres, the salary of the Medical officer is £35. In the eight districts into which the great Islington parish is divided, covering 3050 acres, and numbering 155,341 people, each Medical man receives the munificent sum of £50 per annum. In the western district of Poplar, with a population of 26,168, £75 is paid; and the guardians of Balham and Upper Tooting, in Wandsworth and Clapham parish, have found a Doctor who accepts £20 per annum. Now, making all allowances for differences in the rank, wealth, and concentration of population in different districts, are, we ask, these sums such as ought to be paid to a specially educated class of men intrusted by the Government of the country with responsibilities of the gravest kind?

An inquiry into the condition of the Farnham Union Workhouse, which was originated by a Medical contemporary, is to be repeated by the guardians and the inspector of the district, specially empowered by the Poor-law Board. As it is clear that, if the charges brought against the management and arrangement of the Workhouse are true, the efficiency of the inspector of the district may come under review, we must confess to sharing the general opinion that some other person should have been selected to conduct the inquiry. It would have been better also for all parties that the inquiry should not have been a secret one. *Omne ignotum*, etc.

The Royal Medical and Chirurgical Society commences its session next week. Dr. Fuller promises a paper for the first meeting, on the excretion of urea in certain forms of dyspepsia.

In our last number, when speaking of Dr. Richardson's theory of the condensing property of the pulmonary surface, we referred to Professor Graham's observations on the condensation of gases by platinum and colloidal bodies. In a lecture delivered last session by Dr. Odling at the Royal Institution on the occlusion of gases by metals, he has promulgated several new observations on this very interesting subject. It turns out that platinum and iron are not the only metals which have the property at a high temperature of being permeable to hydrogen gas. Mr. Graham has shown that the power is possessed in a still greater degree by palladium. Ignited copper in the state of wire will absorb hydrogen to the amount of 30 per cent., and in the state of sponge to 60 per cent. Gold, in the form of assay comettes, is capable of absorbing 48 per cent of hydrogen, 29 per cent. of carbonic oxide, 16 per cent. of carbonic anhydride, and 20 per cent. of air, chiefly, however, nitrogen. Silver is characterised by its preferential absorption of oxygen. It hence appears that a special relationship exists between particular gases and metals. The transmission of the gas through the metal is preceded by the absorption or occlusion of the gas in the substance of the metal so permeated. One of the most interesting of Professor Graham's experiments was made on sidereal iron—the iron of a meteorite. "Some 45 grammes, or 6 cubic centimetres, of meteoric iron from the Lenarto fall were heated in vacuo for two hours and a half, and found by Mr. Graham to give off 16·5 cubic centimetres of gas, which consisted substantially, not of carbonic oxide, but of hydrogen, to the extent at least of 85·5 per cent. of the entire yield of gas, the remainder being chiefly nitrogen and carbonic oxide. The inference that the meteorite, at some time or other, had been ignited in an atmosphere of which the prevailing constituent was hydrogen, is obvious; and, judging from the volume of gas yielded, the hydrogen atmosphere must have been a highly condensed one. For, even under ordinary atmospheric pressure, telluric iron is found to absorb but somewhat less than half its volume; whereas this sidereal iron furnished fully two and a half times its volume of hydrogen." Dr. Odling mentions the fact that Father Secchi has distinguished one class of stars, typified by α Lyræ, as having a spectrum which is essentially that of hydrogen.

The inquest on the woman who died from aortic constriction at the Bishop's-road station terminated in a verdict of "death from natural causes." Besides Mr. Rodgers's report, another report was presented to the jury signed by Drs. Bachoffner, Letheby, and Whitmore. These gentlemen give even a more favourable account of the air of the Underground Railway than Mr. Rodgers, inasmuch as they state there was no deficiency of oxygen in it, whilst Mr. Rodgers says that at the Gower-street station he found it reduced to 18 7 per cent., being about 2 per cent. less than the normal quantity of 20·81 oxygen to 79·19 of nitrogen. Drs. Bachoffner, Letheby, and Whitmore also assert that no sulphurous acid could be detected by the iodic acid and starch test, which was sufficiently delicate to show the presence of one part in 100,000 parts of air, but they frankly acknowledge that it might be present in such quantities as to be smelt, tasted, and to make people cough, without its being detected by chemical means. For our own part we would rather trust to the sensations than to the test, and we know that persons with impaired respiratory organs have experienced real inconvenience when they have braved the air of the Underground Railway. The reports also state that neither carbonic acid nor carbonic oxide is present in noxuous quantities. The air obtained for analysis by Drs. Letheby, Bachoffner, and Whitmore was taken on the 3rd, 6th, and 7th September. These analyses suggest to us an important question, which we think ought to be distinctly answered—Was the air analysed collected before or after the Company had thrown open the gratings above the stations? Before the rumours of the injurious nature of the air in the tunnels went afloat, these gratings were securely glazed, and admitted little or no air; but immediately the question of ventilation was raised, the Company threw open the gratings by removing the glass which had formerly prevented admission of the air. The result of this step was remarkably good, since it really involved more or less efficient ventilation. Hence, if the air analysed were collected subsequently to the opening of these gratings, it would, of course, be tolerably pure, and would not represent the condition of the atmosphere at the time of the death of the woman on whom the inquest was held. Now the air examined was, we have reason to think, collected after the gratings had been thrown open. If this be so, the fact demands some explanation, and we hope that public interest in this important matter will be satisfied.

The prospect held out by the Corporation of the City of the erection of a series of abattoirs for the metropolis in the neighbourhood of the New Cattle Market, to communicate by rail with the railway stations and the new Smithfield Dead-meat Market, is, both from a sanitary and a pedestrian point of view, a pleasant one. The abolition of private and district slaughter-houses, many of which are doomed under the Building Act, and the banishment of cattle and sheep from the London streets, will be a great deliverance.

The inquiry by the Board of Trade into the East London water supply must be productive of good. Captain Tyler, who conducted it, found that the allegations with regard to insufficient quantity and the want of a Sunday supply were proved. The evidence of the prevalence of cholera in the district supplied by the Company, although not amounting to absolute proof, justifies "grave suspicion." The directors, although "conscientiously satisfied" that their water had nothing to do with the epidemic, promise to guard against any such danger for the future, and have bound themselves under their recent Act to prevent sewage soaking into their reservoirs.

We conclude this week Dr. Richardson's valuable lecture on bichloride of methylene. Up to this time the results of the administration of the bichloride of methylene continue as favourable as ever. Mr. P. Marshall, of Bedford-square, one of the earliest administrators of anæsthetics, and a co-worker with Snow, has administered the fluid this week in a case of ovariotomy, operated upon by Mr. Hird, with most satisfactory results; there was again no vomiting. Mr. Marshall has also used it successfully in some smaller operations, and Mr. Gamgee, of Birmingham, administered it twice on Wednesday last with equally good results, one of his patients being an infant ten weeks old.

THE ABYSSINIAN CAMPAIGN.

We believe that the first half of the advance party of the expeditionary force for Abyssinia was to sail from Bombay early in October, and that the remainder will sail early during the present month from Kurrachee. Dr. Currie, C.B., Deputy Inspector-General of Hospitals, will be the principal Medical officer of the British troops, and Surgeon-Major T. Moorhead, M.D., formerly Assistant-Professor of Military Surgery at Netley, will probably be the sanitary officer. The Medical and other officers going from this country will be put on the strength of the Indian establishment on arrival at Aden. Whatever may be the result of the expedition, the Government will deserve credit for the liberality of their arrangements for preserving the health and efficiency of our troops. All the appliances of modern science have been put in requisition for this purpose. We have already described the admirable nature of the equipment and arrangement of the Hospital ships. We have since learned that, for the purpose of procuring plentiful supplies of pure water, so essential to the health of the troops in their passage through the country, an officer and party of men of the Royal Engineers who have been instructed in the mode of sinking Norton's American tube wells will accompany the force, and that a large number of sets of the necessary apparatus has been despatched. The opportunity of pursuing scientific investigations in this hitherto little known region has not been lost sight of. We hear that, on the recommendation of Sir Roderick Murchison, Mr. Markham, F.R.G.S., will accompany the expedition as scientific investigator on behalf of the Royal Geographical Society, and we believe that no better selection could have been made. We have been also given to understand that the Bombay authorities will appoint officers of their own selection for the purpose of making researches in all the other branches of natural science. A party of photographers from the Royal Engineers will also contribute their share in recording the natural appearances of the country. Telegraphic communication from the base of operations to the front will of course be established, and it is not unlikely that even a railroad or tramway may be constructed through the lowlands from the landing-place. All this will no doubt cost money, and what shall we get in exchange? Mr. Dufton, in his recent most readable and instructive book on Abyssinia, gives a glowing description of the beauties of the scenery, the richness of the soil, and the salubrity of the climate of the hill regions. He throws out hints of the "intelligent British soldier," on his progress through the country, picking up pieces of coal and of iron ore; and when to these we add the probability of the slopes of the Abyssinian highlands being found suitable for the cultivation of tea, coffee, and (more important than either) cinchona, we think a very fair indication of the reply to the question presents itself, and that we shall find our reward for present expenditure in having opened out before us an extensive and lucrative field for colonisation, as also a sanatorium for our Indian troops.

YELLOW FEVER IN THE "ATRATO."

We regret to state that the Royal mail steamer *Atrato* has arrived at the Motherbank, from St. Thomas, with a great number of cases of yellow fever among both passengers and crew—forty cases altogether, and six deaths during the voyage. Several serious cases are still on board; one death took place on the evening of the 29th, with black vomit; two more patients are in a very precarious condition (October 30), and not expected to live many hours. This ship, it appears,

remained at St. Thomas nearly a fortnight, and was for seven days alongside the coal-wharf, and during that time the weather was wet and sultry, and the ports were all obliged to be closed. There were twenty-four or thirty cases of yellow fever during her stay in the harbour, with several deaths—in fact, when she received her passengers on board she was thoroughly infected, and our astonishment is that the passengers have escaped so well as they have. We cannot but express our surprise that, with the experience of last year, the Company persist in sending their ships to such a pest-spot, when there are so many other places quite as suitable, and free from the malarious influences attached to St. Thomas. Every arrangement for the comfort of the sick and convalescents, and also for the healthy passengers, has been made by the Lords of the Council. Dr. Wiblin, Medical Superintendent of Quarantine, visits the ship daily in H.M. ship *Pigmy;* and we have no doubt but that, by the precautions taken, we shall prevent the introduction of this disease into this country. We understand that, so far from the cold weather having had an effect in arresting the spread of the disease, it rather aggravated it, deaths having occurred within two or three days of her arrival, and one on her passage from Plymouth to the Motherbank, and another since her arrival there.

CHOLERA IN INDIA.

We regret to observe that latest advices from India give very gloomy accounts as to the persistence and spread of the epidemic of cholera which has been for so long committing its ravages in that country. From all accounts that have come before us it would appear that the anticipations of great benefit to be derived from the system of moving troops out into camp on the appearance of cholera, and of frequently changing ground in case of the continuance of the disease, have in many cases not been realised. The difficulties of carrying out the system in a satisfactory manner are very great, and in some instances, from mismanagement on the part of the military authorities, it appears to have broken down altogether, and to have been attended by the greatest hardships to the troops engaged in the attempt. Our readers will remember that the epidemic first appeared in Peshawur in April or May, and there caused a very serious amount of mortality, but no cases have occurred in that station since the latter end of July. Meean Meer also suffered very severely about the same time, but is now also free from the disease. Almost all the stations in the Punjaub and north-west provinces, including three or four of the hill stations, have been visited with more or less severity, and the disease is steadily passing down country, having apparently gained greater virulence in its progress. At Meerut it has produced an almost unprecedented mortality in the 3rd Buffs, 157 casea and 135 deaths among all ranks—being at the rate of 859 deaths in every 1000 casea—having occurred in one month between the middle of August and middle of September; in one week alone 63 cases and 54 deaths occurred. At Jullundur, in the 82nd Regiment, there were 19 cases and 15 deaths in a few days. So far as we can gather from the various accounts we have received, there have occurred in Bengal, during the present epidemic, about 850 cases and 570 deaths in all ranks from cholera and choleraic diarrhœa, being at the rate of 670 deaths in every 1000 cases. At Nusseerabad, in the Bombay Presidency, the epidemic appeared in a very virulent form, on September 6, in the 2nd Battalion of the 1st Royals. The regiment was immediately ordered out into camp, the first move, as reported by one of our contemporaries, having been attended by a series of blunders on the part of the military authorities, by which the most harassing discomforts were inflicted on the troops. Within a few days the camp changed ground five times, but the disease continued virulent until September 24, when it became milder, and is now said to have almost disappeared. During those nineteen days there occurred in the 1st Royals 90 cases and 62 deaths among all ranks. In the Artillery at the same station 7 cases and 4 deaths occurred, and among the native camp-followers a few cases occurred. The disease appears to have originated, and to have acquired its greatest intensity, in the 1st Royals, as among the native troops and the inhabitants of the bazaars it had not been known to prevail.

We understand that Dr. M. W. Murphy, Deputy Inspector-General of Hospitals, has been despatched from Mhow to make full inquiry into the circumstances of the outbreak of cholera in Nusseerabad.

FROM ABROAD.—DEATHS FROM CHLOROFORM—THE ALLEGED SALE OF AMERICAN DIPLOMAS—TROUSSEAU'S STATUE—EXTIRPATION OF THE SPLEEN.

Although Richardson's new discovery may some day give chloroform the go-by, we may continue in the meantime to record the authentic accounts of cases of death which have taken place after the employment of this agent. M. Desprès recently related one of these to the Paris Society of Surgery. A dressmaker, aged 19, having been put, on July 24, under chloroform for the removal of vegetations of the vulva without any ill consequence, was on August 14 placed in the horizontal position for the same purpose. Some chloroform was dropped on a compress so as to moisten it to the extent of a five-franc piece, when it was held at a distance of three centimetres from the patient's mouth and nostrils. In less than half a minute she began to struggle, and the inhalation was suspended, although the pulse and respiration still continued good. Quite suddenly, however, she passed her urine, her face became highly congested, and the respiration was arrested. Artificial respiration and the other usual means were tried, and although a few respiratory movements were excited at intervals, death nevertheless occurred. The chloroform employed was quite pure. At the autopsy considerable pulmonary and cerebral congestion was found, and the heart was flaccid and large, its fibres, examined by the microscope, exhibiting a pretty advanced degree of fatty degeneration. The blood was found to contain too large a proportion of white globules, and at the bronchial bifurcation there were three glands very much hypertrophied, the largest reaching the size of a sheep's kidney and the other two that of a walnut. To the first of these the pneumogastric nerve adhered.

M. Broca related to the Society another case which had occurred in his practice at the St. Antoine. Joseph B., aged 17, entered the Hospital to have a tumour of the neck removed, which was supposed to be a deep-seated sebacean cyst adhering to the thyroidean membrane. On October 31, 1866, after the anterior surface of the tumour had been dissected, and the deep-seated part was about to be attacked, the patient, under the action of chloroform, struggled and vociferated so violently that the operation had to be suspended awhile. When he had become calmer, M. Broca requested his assistants to hold him while he performed the little that required to be done, but so greatly had his strength become augmented that it was with great struggling only that the operation could be finished. An enormous vein now gave forth its blood from the lower part of the wound, and while this was about to be tied, the patient bounded up from the bed, and freed himself from the hands of the operator and his assistants. The hæmorrhage continued to increase, and after the attempts to tie the vessel had been several times defeated by the patient's violence, he was again put under the influence of chloroform. This vein, as large as a quill, was secured with some difficulty, owing to the fear of admitting the air; the patient breathed well and had a good pulse. The wound was about to be dressed, when, now several minutes after the inhalation of the chloroform had been suspended, the pupil having charge of the pulse declared that it had suddenly

ceased to beat. Respiration still continued, but in a few instants it became slower, and then stopped. All the usual means were had recourse to, and, by galvanism, a few inspirations were induced; but these could not be maintained, and death was found to be complete. M. Broca believed at first that this fatal result was due to the introduction of air into the large vein rather than to the action of the chloroform; but the autopsy convinced him that this interpretation would not hold, for neither the heart nor the divisions of the pulmonary artery contained frothy blood. Neither was there any coagulum in either of the cavities of the heart. After the patient's death it was learned that he was subject to fainting fits, and that one of these had occurred during the ten days prior to the operation. He was also of intemperate habits.

The October number of the *American Journal of the Medical Sciences*, just received, contains the following remonstratory observations on Sir D. Corrigan's charge:—

"Sir Dominic Corrigan, we regret exceedingly to find, has allowed himself to be grossly imposed upon by an advertising vendor of diplomas, and upon such disreputable authority he has hastily charged an American and some German schools with selling their diplomas without an examination of the candidates. Amongst other schools, he makes this charge against 'the University of the State of Pennsylvania.' Of the existence of any school with this precise title we have no knowledge; but it may be inferred that the institution referred to is the University of Pennsylvania, the Medical department of which has for a century enjoyed so high a reputation. Should this inference be correct, we unhesitatingly pronounce the charge to be utterly unfounded. Indeed, the conditions under which diplomas are conferred by this University render their issue *in absentia* impossible. Even an *ad eundem* degree is not conferred without an examination. We should not have thought this explanation necessary had not the charge been made on so public and important an occasion, and by one holding the high position of Sir D. Corrigan."

We sometimes hear of the neglect to raise memorials of our dead great ones as a national disgrace, and although the imputation will not certainly hold good as regards naval and military heroes and others of the noble sort, yet such recognition of scientific and professional men is scanty enough. Every one will recollect the uphill work there was to raise a statue to Jenner, which, too, after being placed in so conspicuous a place as Trafalgar-square, proved so irritating a sight to the fighting men of the neighbouring clubs, that it was relegated to its present retreat in Kensington-gardens, where, among the nurserymaids and their young charges, upon whom he has conferred such signal blessings, he is not so much out of place after all. The hackneyed phrase that "they manage these things better in France" seems as untrue in this as in most other instances; for towards raising a statue or even producing a bust of Trousseau, notwithstanding the most urgent appeals, the miserable sum of 4000 francs has as yet only been collected. Laennec will probably prove more fortunate, as the movement for his statue was taken up and urged on by the French Medical Association, and even that is not yet erected. A subscription for a statue of Dupuytren came to nothing. In face of these facts, M. Latour has declined originating in the *Union Médicale* a subscription for a statue or bust of Velpeau, justly observing that in such matters we ought to be sure of success or abstain, and the examples given above show how uncertain is success.

Professor Koberlé, of Strasburg, is certainly one of the most adventurous of the French Surgeons. To his numerous cases of ovariotomy and several cases of extirpation of the entire uterus, he has now added one of extirpation of a hypertrophied spleen weighing 6 kilogrammes and a half, or about 13 lbs. avoirdupois. The patient, aged 42, was quite well until the end of 1864, when the tumefaction of her abdomen began to be apparent, and continued to increase, and after a while was attended with ascites. It was evidently due to hypertrophy of the spleen, which, by September, 1867, measured 45 centimetres in length. As the enlargement continued progressive, and all internal means were unavailing, an operation was determined upon. The incision of the linea alba was prolonged to the extent of 30 centimetres, and the lower part of the spleen was easily drawn out. The vessels, which were enormously increased in size, were tied in six or seven positions, and divided between the ligatures. The splenic artery equalled the femoral in size, and the vein measured 2½ centimetres in diameter. The upper part of the spleen was found closely adhering to the diaphragm, and was detached with much difficulty. During the operation a considerable quantity of blood was lost, the small vessels continuing to ooze abundantly, the blood coagulating with great difficulty, and a great quantity also flowing from the surface of the ruptured adhesions. This bleeding was never effectually arrested, for ligatures could not be applied to the deep-seated and small vessels. The patient, who had been operated upon under chloroform, never recovered her consciousness, and soon sank exhausted by the bleeding. The spleen was from forty to fifty times its natural size, but neither in aspect nor consistency offered anything abnormal. M. Kœberlé truly says that his operation must be considered as one of the boldest in Surgery, and seems not a little proud of it We transcribe his account rather as a warning than as an example.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

(Continued from page 470.)

[Before we proceed with our analysis of Vulpian's "Lectures on the Physiology of the Nervous System," let us say that when we stated that he accepts Rouget's views on the mode in which nerves terminate in muscle in preference to those of Dr. Beale, we gave his opinions without endorsing them. We have so high an opinion of Dr. Beale's accuracy as an observer that we should *à priori*, and without any personal investigation of the disputed question, prefer his opinion on a point of microscopic investigation to that of M. Rouget, with whose powers as a histologist we are less acquainted. We state this much to prevent misapprehension.]

The two following lectures (IX. and X.) are principally devoted to the study of the remarkable poison *Curare*, known also as *Woorara*, *Ourali*, *Ticunas*, etc., with which the South American Indians anoint their arrows—a subject on which we shall not at present enter. From the concluding part of the second of these lectures we shall abstract, in a condensed form, M. Vulpian's report of some very interesting experiments made by M. Flourens, which, at first sight, seem to show that we are able at will to abolish the physiological property of the sensitive fibres without affecting the motor filaments, and, conversely, that we can suppress the motor power (motricity) without interfering with the sensitive property (sensitivity) in a mixed nervous trunk. In experiments made with the view of illustrating our power of suspending or abolishing the sensitivity of mixed nerves, we inject into the crural artery of the dog, and in the direction towards the heart, some inert powder, as that of lycopodium, suspended in a little water. No pain is apparently excited by the injection, but paralysis of the hind legs is induced. On exposing and pinching the sciatic nerve, the muscles of the leg are thrown into a state of contraction, but there are no signs of pain. Hence the nerve has preserved its motricity, while it has lost all sensibility. This remarkable phenomenon seems capable of the following explanation:—"The lycopodium powder has been projected with sufficient force to drive it into the posterior part of the aorta. From thence it has been driven back towards the hind-legs by the blood-waves from the heart, and has penetrated those branches of the lumbar arteries which supply the spinal cord. These arteries, as well as those which supply the hind-legs, become then at once occluded, and the grey matter of the spinal cord, being thus suddenly deprived of its supply of blood, is at once deprived of its functions, and ceases to have the power of transmitting either sensory or motor impressions. There is paralysis of spontaneous motor power, and, moreover, excitation of the sciatic nerve can no longer cause pain. On the other hand, the interruption of the circulation does not for some time

interfere with the properties of the nerves and muscles; and hence we can understand that excitation of the sciatic nerve may give rise to muscular contractions without exciting pain. Hence, in experiments of this nature, there is not a true abolition of the physiological property of the sensitive fibres of the mixed nerves; but these fibres, when their activity is called into play, can no longer excite pain or reflex action, since the anatomical elements with which they are connected at their central extremity—namely, the cells of the grey matter —are no longer able to discharge their functions, in consequence of the stoppage of the blood-current in the corresponding part of the spinal cord."—Pp. 224-5.

The converse experiment, by which the motricity of the mixed nerves is apparently affected, is of this nature. A substance of a more or less irritant nature, as an essential oil, is injected *in either direction* into one of the crural arteries. The injection, if thrown in towards the heart, acts instantaneously, occasioning acute pain and giving rise to paralysis of the hind quarters. On now laying bare the sciatic nerve and pinching it with the forceps, we at once elicit cries of pain, but do not observe any movement of the corresponding limb. The explanation of this phenomenon is easy. The essential oil injected into the circulation at once produces a chemical and destructive action on the muscles, while the nerve for an instant or two remains intact. On irritating it, the muscles no longer respond, and there is no movement produced in the limb, while there is pain in consequence of the functions of the spinal cord not having been affected. Hence in this, as in the previous experiment, the property of the nervous fibres is unaffected, and it is merely their action on the muscles which is destroyed, in consequence of the losa of muscular irritability. This experiment affords a good illustration of the great comparative resistance which the nervous tubes are capable of offering to the action of substances which are instantly destructive to the muscular and other tissues.

In the next two lectures, "On the Degeneration of Nerves when separated from their Nervous Centres," and "On the Regeneration of Nerves," M. Vulpian does full justice to our ingenious countryman Dr. Waller, and gives the following apt illustrations of the "méthode Wallérienne" in tracing the peripheral distribution of a nerve. "The pneumogastric nerve anastomoses in its course with several motor nerves, as, for example, with the internal branch of the spinal accessory nerve. From their point of union onwards it is impossible to distinguish which fibres belong to the pneumogastric and which to the spinal accessory. Destroy by Cl. Bernard's method of evulsion the central part of the spinal accessory nerve, and at the end of a fortnight examine the branches of the pneumogastric nerve; wherever you observe altered fibres you may be certain that they belong to the spinal accessory nerve. Similarly, if we divide one of the pneumogastric nerves, we can tell with the greatest precision if and where in the various plexuses formed by the two nerves (the pulmonary plexuses, for example) the filaments of the injured nerve cross the mesial line for distribution on the opposite side of the body. The result of my experiments is, however, that very few of the fibres of the nerves of one side cross the mesial line. Would you desire to know if the chorda tympani proceeds to the tongue? Destroy the central part of the facial nerve, and you will find no altered nerve fibres in the tongue, and hence you may be confident that the chorda tympani does not attach itself to the lingual, and that its course ceases at the submaxillary ganglion. From experiments which I have made on dogs and rabbits, I regard this experiment as decisive." (Pp. 249-50.) Nervous fibres separated from their nervous centres lose their physiological properties in about four days, the loss being apparently due to a modification of the structure of the fibres, which does not until subsequently become revealed by the microscope, and appears to consist essentially in the destruction of the medullary matter. At about the eighth day after the division of the nerve, the fibres of the peripheral portion become altered in appearance when examined microscopically; and besides other changes (as irregularity of the outline of the fibres) the medullary substance presents constrictions or segmentations at definite intervals. This segmentation makes rapid progress during the succeeding days, and the white substance of Schwann in each nerve-tube contains rounded vesicles of a fatty appearance, which continue to subdivide till they become very minute; and in the course of a month or six weeks the segmentation is complete, and the medullary matter is reduced to minute granules, which in two or three months' time resemble a fine powder, and finally disappear. This well-marked alteration in the aspect of a nerve, consequent on its section and degeneration, has been made available for identifying and following its ramifications and finest divisions, when mingled with other nerves distributed to the same organ, and for tracing its fibres with certainty through the intricacies of a plexus to which various nerves contribute (examples of which have been given in the preceding extract from M. Vulpian); and it was principally for having supplied this new method of research, that Dr. Waller received, in 1860, one of the Royal medals annually awarded by the Council of the Royal Society.(a) When the process of degeneration of a nerve has arrived at its final stage, the medullary substance of the nervous fibres has disappeared, and each of the latter is now reduced to the cylinder axis, with the white matter of Schwann in folds around it. This altered state of the fibres is, however, not a permanent one; after a more or less prolonged interval, a process of reconstruction ensues, which tends to restore the normal structure to the nerve. We regret that we cannot even give a brief abstract of M. Vulpian's admirable lecture on this subject. There are, however, one or two points which we cannot altogether pass over. When a portion of a nervous trunk has been removed, how is the nervous structure in the intervening space restored? Two hypotheses have been suggested. According to one, new tubes are formed in what Vulpian calls "*un tissu cicatriciel*," which was originally mere connective tissue; while according to the other, the nerve-tubes proceed from the central end, which sends forth bud-like prolongations. The facts that have been hitherto observed tend to render the latter view the more probable. What extent of nerve can be removed without destroying the chance of reparation cannot be accurately determined. If not more than four-fifths of an inch is removed, the reparation is easily effected; and Schiff, Philipeaux, and Vulpian have seen even more than two inches of removed nerve replaced. This regeneration of nerve-trunks takes place most rapidly in very young animals. Thus the continuity of the sciatic nerve was restored in less than seventeen days in very young rats, in which a quarter of an inch of the nerve had been removed. It seems, from the various experiments recorded by Schiff, Vulpian, and others, that a breach of nervous tissue of about three inches exceeds the limits of reparative power. With the thirteenth lecture, which treats of "the identity of the mode of action of all the nervous fibres," we shall conclude the present article on M. Vulpian's valuable work. The most important experiments bearing on this subject may be divided into two classes—namely, (1) those made on mixed nerves, and consisting in the reunion of the central end of a mixed nerve having a certain function with the peripheral extremity of another mixed nerve having a different function; and (2) those in which a union is effected between a motor and a sensory nerve. By experiments such as these, it can be ascertained whether it *is* or *is not* possible to unite, end to end, two nerves of different functions, so that the excitations conveyed by one of the nerves may be transmitted to the other.

The following apparently decisive experiment was made, and often repeated, by MM. Vulpian and Philipeaux. They divide the hypoglossal nerve (the motor nerve of the tongue) transversely at about the middle of its course, and effect complete evulsion of the central part of the nerve with its bulbous roots. They next divide the pneumogastric nerve at about the middle part of the neck, and after excising a long segment of the peripheral part of the nerve, and bringing its central end in contact with the peripheral end of the hypoglossal nerve, they retain the two extremities in contact by means of a suture. The result is, to a considerable degree, dependent, as in the case of the reunion of the two ends of the same nerve, on the age of the animal; but if after three or four months the parts are examined, the reunion is almost always complete, and the subsequent examination of the peripheral end of the hypoglossal nerve shows that it has undergone a more or less entire regeneration. If, however, before this examination is made, the central end of the pneumogastric nerve is pinched, very obvious movements of the tongue are induced, and there is thus evidence of a free and complete communication of impressions made on the central end of the pneumogastric to the peripheral end of the hypoglossal nerve. It may be alleged in opposition to the above conclusion that the movements observed in the tongue are due to reflex action; but as the movements are only on the side of the tongue which corresponds with the side

(a) An excellent abstract of Dr. Waller's various researches up to that date is given in Sir B. Brodie's presidential address delivered at the anniversary meeting of the Royal Society, November, 1860, on which occasion the various medals are presented.

on which the operation was performed, the objection falls to the ground, and, indeed, additional and incontestable proof of the fallacy of the reflex-action explanation is given by M. Vulpian. Conversely, when the peripheral end of the pneumogastric nerve is united to the central end of the hypoglossal, it is found, in the course of four or five months after the operation, that if, after taking certain precautions, we galvanise the central end of the latter, the movements of the heart become more or less frequent. Hence in both these cases there is evidence of a complete union between the two nerves.

Passing on to the second class of experiments, in which we have to consider the union of a motor with a sensory nerve, our author, after noticing the experiments of Schwann, Bidder, Schiff, and others, states that he has made more than one hundred and twenty experiments on this subject. The lingual and hypoglossal nerves were selected for the decision of this question. Without entering into details, it is sufficient to state that, the mortality following the operation in young animals being very great, adult animals, in whom the regeneration of nervous tissue is less rapid, were of necessity chiefly used. In the course of from fifty-five to sixty days the peripheral end of the nerve (either hypoglossal or lingual, according to the operation) was found to be in part restored in adult dogs. In those animals which survived the operation of uniting the central end of the lingual nerve with the peripheral end of the hypoglossal nerve, it was found, if they were submitted to further experiment four or five months after the operation, that mechanical excitation of the central part of the lingual nerve produced muscular contractions in the tongue. It might naturally be expected that if the inverse experiment of uniting the central end of the hypoglossal nerve with the peripheral end of the lingual nerve were performed, we should observe the inverse phenomena, and recognise the passage of impressions excited at the peripheral end of the hypoglossal nerve to the central end of the lingual nerve. Experiments, however, leave this point still doubtful. The final results of the study of this important subject are thus summed up by our author:—"1. There is no important histological difference between the sensory and motor nervous fibres. 2. The action of excitants is the same on both sets of fibres. 3. The results obtained by M. Du Bois-Reymond in his experiments on the electrical phenomena manifested by the two sets of fibres are identical. 4. There is no poisonous reagent, nor is there any experimental process, that acts specially on either set of fibres. 5. The laws of degeneration and of regeneration are identical in both sets of fibres. 6. The physiological properties disappear and are renewed in the same manner, and follow the same course, in the motor and in the sensory fibres. 7. It has finally been proved that impressions may be freely transmitted from one set of fibres to the other."—P. 286.

We shall next proceed to the consideration of our author's views on the anatomy and physiology of the different parts of the cerebro-spinal axis.

GENERAL CORRESPONDENCE.

THE SCIENTIFIC VALUE OF CONFESSIONS BY ALLEGED CRIMINAL LUNATICS.

Letter from Professor Laycock.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must again ask permission to express my dissent from a *dictum* in your current number as to the scientific value of confessions by alleged criminal lunatics. It is contained in the following, under "Topics of the Day:"—"The case of Bordier is, however, set at rest by his own admissions. In letters published in the *Morning Star* on Wednesday last, he repeatedly acknowledges the justice of his sentence. . . . It was clear that jealousy, not madness, was the cause of his crime. . . . For some time after his conviction Bordier cherished the hope that he might still be reprieved on the ground of insanity, but, finding his hope fail, he resigned himself to his fate, received the consolation of the Roman Catholic Church, and died deeply penitent. *In all this there is certainly no evidence of madness.*" I italicise the conclusion from the facts as stated; but, admitting the facts (although obviously exaggerated), I cannot see any connexion whatever between it and the problem propounded, which is, whether, on a certain day and at a certain hour, some weeks ago, Bordier suffered from that kind of brain-disease vaguely termed insanity, and whether, in consequence of that brain-disease, he murdered his wife. Your commentator says the questions are settled—1st, by his own admissions subsequently, for those prove that he was not then insane, and therefore it was not from brain-disease that he murdered his wife; and 2nd, by the fact that when he made those admissions his conduct was such as to afford no evidence of madness at the time of the murder. This line of argument is that usually adopted by laymen wholly inexperienced in mental diseases and wholly ignorant of mental pathology, who desire to justify the condemnation and execution of the alleged lunatics.

The argument has, however, no solid foundation. Admitting everything to be correctly stated (and this, I take leave to say, is more than doubtful), the confessions and admissions of the criminal must be considered in relation to the circumstances in which he was placed. Now, these are so unfavourable to healthy mental action, that eminent jurists long ago maintained that even a voluntary, as opposed to an extorted, confession of a prisoner was to be regarded with suspicion, while Quintilian affirms that a suspicion of insanity is inherent in all confessions. I quote from the late Dr. Southwood Smith's "Forensic Medicine." If your commentator's argument be advanced as of universal application, then the confessions of hundreds of women made when in prison for witchcraft during the witchcraft panics must be admitted as conclusively proving that they had had carnal intercourse with the devil, and performed other feats equally extraordinary. It is very possible that Bordier might become a self-accuser, as is very commonly the case with patients of his class, and he might attribute his wicked feelings and acts to temptations of the devil rather than to the working of a disordered brain. It has repeatedly happened to me to be consulted by melancholiacs, whose consciences were distressed by wicked dreams and suggestions of crimes and blasphemies Few, indeed, of mankind would have the power of accurate diagnosis in a state of health like that of Bordier; fewer still would have a sufficient knowledge of mental pathology to judge aright as to their mental state, even if not in prison and condemned to suffer a disgraceful death.

This fallacious line of argument is a hindrance to justice in other cases than those of criminal lunatics. The demeanour of a prisoner is now carefully noted, and conclusions as to his guilt deduced therefrom, either directly or by implication. Thus the reporters inform us that the suspected murderer of the bandsman, when before the magistrate at Bow-street on Wednesday last, "appeared much altered, being thinner and paler than before, and having a careworn anxious look, which he had not exhibited hitherto. He was also much more nervous and tremulous than on the former occasions." Apply your commentator's line of argument to this case, and we might fairly conclude that Groves, the accused, suffered thus from a sense of fear and shame due to a guilty conscience—that, in short, his mental condition was a tacit acknowledgment of his guilt. And yet nothing is more certain than that a man of spotless life might, under similar circumstances, display similar symptoms of bodily disorder from mental causes. The difference between your commentator and all modern mental Physicians, almost without exception, is radical. The latter look at the problem from the corporeal side; they hold that the *acts* of the criminal lunatic are directly determined by morbid conditions of the brain, and they seek for them. These morbid conditions are indicated by symptoms; but it is not the fact that any well-educated mental Physician holds that the commission of an outrageous crime is of itself a proof of insanity. Your commentator practically ignores the corporeal side of the question. He not only denies that the direct and distinct evidence of Mr. Simpson is any evidence of insanity whatever, but the whole gist of his remarks, and in particular his introduction of moral questions, show that he is not of our school, and has to learn the first rudiments of our method.

Undoubtedly, jurisprudence as to criminal lunatics and insanity generally has retrograded of late years. The cause is, I think, to be found in the conflict of the old and new philosophies. The impatience of the speculative moralists with the latter (which jars by its scientific positiveness upon their ancient dogmas) is well indicated in the whole tone of your commentator's remarks, but was never better shown than by Lord Westbury when Lord Chancellor and bringing forward a lunacy bill in the House of Lords. "An evil habit," he loudly and vigorously declared, "an evil habit has grown up into a precedent with judges and juries of assuming that insanity was a physical disease, and not a subject for moral inquiry." It is "a vicious principle," he said, "to

consider insanity as a disease." Nay, the ex-Lord Chancellor indignantly asks—"Was it indispensable that persons should have studied in the schools of Medicine, listened to lectures, and walked the Hospitals in order to form a conclusion whether a man was or was not a lunatic? Yet, by the existing law, that was the very absurdity committed."

Your commentator, I think, belongs virtually to this—the Westbury—school of mental pathology. Otherwise, he would hardly have stated as a valid argument against the corporeal doctrines that they were "subversive of the clearest laws of religion and morality." I am, &c. T. Laycock.

13, Walker-street, Edinburgh, October 25.

P.S.—Since writing the above a case of interest has occurred so appropriately illustrative of the question I have discussed, that I ask permission to add a note to it. A man named Muggeridge gave himself up on Thursday afternoon as the murderer of the bandsman, and *twice* repeated his confession, with the same details as to the circumstances, the weapon, etc. He was quite calm and collected, but had the appearance as if he had been drinking, but had recovered. The whole story in all its details was shown to be a falsehood, and the prisoner declared that he could not imagine what could have induced him to make so extraordinary a statement. His friends, in explanation, said that he had several times suffered from delusions, but more especially after trouble and disappointment. For the last two months his wife had avoided him, his state being such that she dreaded to meet him.

Let us suppose that Muggeridge, instead of acting on the insane hallucination which regulated his conduct in a way he could not understand, had murdered his wife from insane jealousy, the case would be essentially that of Bordier. Yet Bordier was punished for his crime, and Muggeridge left unpunished; for Mr. Vaughan, the magistrate, discharged him on the obvious ground that he was suffering from hallucinations. Pray note the fact, too, that Bordier's belief in his insanity when he committed the act was brought against him as a proof of his sanity, because he died "deeply penitent," and probably accusing himself.

One more fact illustrative of the hanging of lunaties. On Sunday morning last, an unmarried man living in Dundee, who had been for some time an inmate of a lunatic asylum in consequence of extreme despondency as to his spiritual state and his strong suicidal and homicidal tendencies, but who had been discharged from the asylum much improved, rose in the night from his bed and murdered his sister as she lay asleep. He then left the house. On being met by a policeman and asked where he was going, he replied—"To the police-office or lunatic asylum;" and being further asked why he wanted to go to the police-office, he answered, "I have murdered my sister, and I want to be hanged." So much for the lesson taught by the hanging of Louis Bordier.

These questions are of no trifling importance when it is remembered that there are in England at this moment at least 200 persons free from control who will have committed suicide before the 1st of January next, and at least twice as many who will have attempted it; and further, that a percentage of these—at least from 10 to 15 per cent.—are homicidal as well as suicidal.

Edinburgh, October 29.

DR. BARNES ON THE FORCEPS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Downie invites further explanation as to my practice in applying the forceps to the head in the second position. I do not know that I can do much more than repeat what is said in the lecture published on August 24. Dr. Downie inquires "if it is not necessary to feel an ear before applying the forceps in cases where the head is in the second position, with an ear to be felt behind the pubes, the patient's strength worn out, and pains giving no assistance? Further, must we, in addition to extraction, rotate the head so as to cause it to make its screw-like turn? And if we require to do this, how do we know which way to rotate the head, unless the position of the head has been previously diagnosed? And how can we diagnose that position unless we feel an ear?"

These questions hang very pertinently together, and the answers are as closely related. In the first place, I must premise that the second position being strictly analogous to the first, the relations between head and pelvis not differing, it does not call for any essential difference in treatment. The occipito-frontal diameter of the head is in the left oblique diameter of the pelvis; therefore the forceps will lie in the opposite or right oblique diameter instead of these conditions being transposed. There is no greater necessity for feeling an ear in the second than there is in the first position. *It is not necessary to rotate the head by means of the forceps so as to cause it to take its screw-like turn*, some very rare cases excepted. The screw-like turn of the head is the necessary result of the mutual adaptation or fitting of the head and pelvis as the head advances. You therefore do enough—you do your share of the work—if you cause the head to advance. Nature will give the proper turn. There is, indeed, a point in the transit where nature sometimes fails, and then we have the rare exceptional cases to which I have referred. When the head has reached the floor of the pelvis, maintaining a position coincident with the transverse diameter of the pelvis, it will occasionally stick there, resting as on a shelf on the sacro-sciatic ligaments and ischia. It is in such a case that it is useful to seize the head over the ears, and to give a gentle rotation movement to the head to bring the occiput off the shelf, directing it forwards. I have especially stated that in two such cases I found this object was best attained by the straight forceps. Of course I have seen many cases of arrest of the head in the second position. They have been delivered with just as much ease by the double-curved forceps as cases of arrest in the first position. But this would certainly not have been my experience had I attempted to direct, or to correct, or to alter the position of the head. This officious and superfluous action, instead of helping delivery, is more apt to end in jamming the head in the pelvis in an unnatural position, and thus possibly to create an artificial justification for craniotomy. This law, that the relation between the conformation of the head and that of the pelvis determines the position of the head in its descent, is so important—it is so imperative to respect it in all our operations, that I may be excused for another illustration. The head only turns as it descends. *There is a definite position of the head proper to every plane of the pelvis.* The position proper to one point is not that which is held at another. Therefore, to rotate the head arrested at a particular point, as the initiatory step to its advance, is to give it a false relation to the pelvis; it is to give a position to the head at one point which properly belongs to a lower plane of the pelvis. And a false relation of the head to the pelvis is a cause of difficulty in labour. The only way of avoiding so serious a contravention of the law which governs the mechanism of labour, is to avoid active rotation. Drawing down simply in the course of Carus' curve, hold the handles of the forceps so that the head may turn by itself; the handles of the forceps will turn with the head; and this turn will indicate descent.

To sum up, then. It is not necessary to rotate the head; it is not therefore necessary to know which way to rotate it; it is not necessary to apply the blades over the ears; it is not necessary to feel an ear. If it be desired, as undoubtedly it is, to know how the head lies, the sutures will tell. If the sagittal suture is felt running straight across the pelvis from ischium to ischium, you know the head lies in the exceptionally unfavourable position I have above described. If the sagittal suture is felt running obliquely, whether to the right or to the left, you may pass the blades in the sides of the pelvis, and they will surely seize the head in a direction between its longitudinal and transverse diameters; and if you extract rightly, the head in its descent will turn rightly under the guidance of nature, just as it will do when it is propelled by the natural powers. I am, &c.

R. Barnes, M.D.

46, Finsbury-square, October 30.

CARBOLIC ACID INHALATOR.

Letter from Dr. A. F. Richmond.

[To the Editor of the Medical Times and Gazette.]

Sir,—About three years ago the attention of the Medical Profession was first drawn by Dr. John McCulloch, of Greenock, to the use of carbolic acid as a curative agent in cases of consumption. But there has always, hitherto, been a difficulty in applying it. Several modes have been tried. In particular Richardson's spray producer, and an American invention of the same kind, though of a more complicated construction, have been employed. The spray, however, produced by them, has been found not fine enough for inhalation.

A young Medical friend who has been in India, Dr. Archi-

bald Richmond, of the Bengal Artillery, having been told the other day of this difficulty, suggested that the principle on which the natives of India smoke tobacco, or what is known as the "hubble bubble" pipe, should be tried. By such a mode, he said, the air would be but slightly impregnated when passing through the carbolic acid, and it would be inhaled with ease, and would reach the extreme points of the lungs with safety and comfort.

This has been fully verified on trial, and I am able to report that in two well-marked cases of consumption the application of carbolic acid by means of an inhalator constructed on the principle suggested has been eminently successful, as far as reduction of purulent expectoration and resumption of a healthy aspect on the part of the patients. I am, &c.

Archibald F. Richmond, M.D.

21, Patrick-street, Greenock, October 16.

PROSTITUTION AT THE CURRAGH.

[To the Editor of the Medical Times and Gazette.]

Sir,—In an article of this week entitled "Prostitution at the Curragh," you mention that at Aldershot the police regulations with regard to the subject have not proved such a check on the spread of disease as might have been wished. Now, Sir, I have been informed of a fact which, if true, will go a long way to explain this. It is said that, from motives of economy, the authorities have restricted the number of free diets allowed to the inmates of the Lock Hospital, so that all the women who are diseased cannot be admitted at one time, and must wait, and in the meantime ply their trade, till some of their sisters are discharged. Now, it is quite evident that if the experiment is to be tried in this half-and-half way, generally leaving a certain number of diseased women abroad, no satisfactory statistics can possibly be obtained. To have restricted the number of diets after the Act had been in operation some time, and when the number of the diseased had probably been much reduced, would, however shabby, have been more excusable; but to start in a diseased population of, say, one hundred, and only admit some thirty or forty, is a piece of folly of which probably no government in Europe, except our own, would ever have been guilty. The writer of this letter was informed that women at Aldershot, confessing themselves diseased, actually clamoured for admission to the Lock Hospital, and on, being refused, replied that they would go and lay up as many soldiers as they could. But, as mentioned at the beginning, this letter is written on hearsay, though the writer suggests that it would not be difficult for some one stationed at Aldershot to find out if these reports are true. I am, &c.

October 26. One who would like to know.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 2.

Dr. Hall Davis, President.

Dr. J. Wynne Hall, of Barking-road, Essex, was elected a Fellow.

Mr. Squire wished to observe that at the last meeting of the Society he had understood Dr. Wiltshire to say, that although he had made some observations on puerperal temperatures, they had afforded no definite indications, and that therefore he had not given them publicity; but seeing by the journals that Dr. Wiltshire appealed to them as agreeing with those of Von Grunewaldt and Wünderlich, and therefore disagreeing with his (Mr. Squire's), he wished to draw the attention of the Society to what the difference was. Von Grunewaldt made the mean temperature just after labour in fifty-two cases to be below 99° F., and then to rise progressively; but he (Mr. Squire) showed that the true temperature was not obtainable in the axilla during and immediately after labour, and that therefore the temporary subsidence of temperature that followed had hitherto been unnoticed. In the sudden rise of temperature for the formation of milk, its subsequent subsidence, the very general return to the normal temperature by the seventh day, even to the effect of a cracked nipple in keeping the temperature high, the results he had obtained Mr. Squire stated to agree with the observations of Von Grunewaldt, and that these observations approached nearer the true temperature than those of Wünderlich. How near to these Dr. Wiltshire's observations approximated he was unable to say, but he suspected them to be open to the source of error that it was the object of his paper to remove.

Dr. Wiltshire remarked that in the observations he had made on puerperal temperatures he had adopted the same method as Von Grunewaldt and Wünderlich, and had placed the thermometer in the axilla, whereas Mr. Squire had placed it in the vagina; and that this, probably, might account for the differences to which Mr. Squire alluded.

Dr. Eastlake exhibited a

DRILL-CROTCHET,

designed by himself, to effect delivery in certain forms of parturition. In the cases in which Dr. Eastlake especially recommended its employment, no other instrument is required. It may, however, be otherwise used as an efficient perforator or crotchet. It consists of a hollow metallic cylinder, to one extremity of which is attached a transverse wooden handle, while to the other is fixed a solid steel trocar point. Through an aperture in the centre of the handle connected with the hollow of the tube, is inserted a steel bar, having at the extreme end a rack, which acting against a cogwheel, enables a bifid crotchet to be forced out at any desired angle. The extension of the crotchet, which can be accomplished instantaneously, is effected by pressure on the bar, by means of a button in close proximity to the handle, the pressure in this case being downwards and towards the handle; while, for the purpose of closing it, the pressure must be downwards and towards the point. The application of the instrument is simple. The handle being held in the right hand of the operator, the trocar point is guided through the vagina by the index and middle fingers of the left hand, until it reaches the fœtal head. The trocar point should be then fixed at right angles with the skull, and perforation effected in the usual manner. By this process the cranium can be pierced in a few seconds, and the crotchet then made to act in the manner already described. The circumstances in which the use of the drill-crotchet is peculiarly applicable are—(1) where the presentation is natural, the fœtus dead, and the head within reach; (2) where the patient is still in the first stage of labour, and the os uteri sufficiently dilated to admit of the introduction of at least two fingers; (3) where there is an absence of any great disproportion between the fœtal head and the canal of the maternal pelvis, and in the case of a hydrocephalic head, without regard to such disproportion, the use of this instrument only is required; lastly, these conditions being present in any case in which, from any cause, immediate delivery is indicated, such as puerperal convulsions, hæmorrhage, and ruptured uterus, and also in some forms of obstructed labour, due to a cancerous condition of the neck of the womb, or obstinate rigidity of the os uteri. Dr. Eastlake also expressed his conviction that this instrument might occasionally be used with success in those cases in which the head of the child has been separated from the body and left in utero, and, occasionally, also as a substitute for Dr. Oldham's vertebral hook.

Dr. Greenhalgh considered the instrument exhibited by Dr. Eastlake well adapted to the class of cases in which he had recommended its use. It appeared to him, however, that being able to place the crotchet at any angle would prove a great advantage, and the more so if it could be fixed at such angle. Dr. Greenhalgh regretted that the inventor had not endeavoured to adapt his ingenious instrument to all cases requiring the use of the perforator and crotchet.

The President observed that the combination of a perforator and a crotchet, as exhibited in Dr. Eastlake's instrument, might, if modified, be found useful in the minor difficulties of craniotomy deliveries by those operators who were still partial to the use of the crotchet. But, to be safely employed, the crotchet should be rendered less sharp, as there would be—except in the cases of thick skulls—a great probability of its transfixing the cranium and wounding the operator's fingers. Moreover, the trocar, for safety, required the addition of a canula to guard its point during its passage to the head. Without it, a sudden movement of the patient would expose her tissues to injury.

The President exhibited a large

FIBROID POLYPUS

which he had removed by the single-wire écraseur from the uterus of a lady aged 34, who had had six children in India. It weighed nearly a pound, and was pediculated at its base

instead of at its neck to the posterior margin of the os uteri. The neck protruded at the vulva, and the case had been mistaken and treated for descent of the uterus. The disease had existed for about two years; and, although it had not occasioned hæmorrhage, it had been attended by pain and troublesome bearing-down sensations, with abundant leucorrhœa, which had enfeebled her health. The patient made a rapid recovery.

Mr. Curgenven read a paper

ON THE USE OF BROMIDE OF POTASSIUM IN PUERPERAL MANIA.

Two cases were narrated in which the bromide of potassium had procured sleep when other medicines had failed, and in which the sleep thus obtained had been followed by a marked subsidence of the mental excitement and speedy recovery.

Dr. Routh read a paper on a

CASE OF TRIPLETS.

When Dr. Routh first saw the patient, she had been in labour eighteen hours. On examination, the os was found to be completely dilated, the antero-posterior diameter of the brim was shortened by a projection of the promontory of the sacrum, and labour pains had almost ceased. A moderate-sized child was abstracted by the forceps. A second examination revealed the existence of a second child, and, no pains being present, delivery was again accomplished by the forceps. On further examination, the arm of a third child was found presenting, and its delivery was effected by turning. The placentæ were three, each with a separate cord. The parenchyma of two were united. The children all lived, and the case progressed satisfactorily.

Dr. Madge read a paper on a

CASE OF SPINA BIFIDA WITH TALIPES VARUS.

Mrs. I., the mother of the child, when a few weeks advanced in her third pregnancy, removed to a new residence, and soon afterwards she met on the stairs a male inmate, whose presence in the house she was not aware of, and who was deformed with a crooked spine and club-feet. The sight of this deformed person, who was making struggling efforts on "all fours" to get upstairs, made a great impression on Mrs. I.'s mind; and when the child was born, which occurred at the full term, it was found to have spina bifida in the lumbar region and club-feet. When the child was about seven months old it became suddenly ill, and the tumour, from having been translucent, became opaque, and its surface mottled as if from the effects of a blow or fall. The child died in a few days. Mrs. I. changed her residence, and has since been twice confined, and the children born have been free from deformity. Dr. Madge said he had not brought the case forward to support any particular doctrine, but had merely stated facts as he had found them. He would not venture to say that the powerful impression photographed, as it were, on the mother's mind in this instance had anything to do with the deformity of the child in utero; but he thought, if the occurrence could only be regarded as a coincidence, that it was a very striking one.

Professor Lazarewitch, of Charkow, Russia, contributed a paper

ON THE INDUCTION OF PREMATURE LABOUR BY INJECTION TO THE FUNDUS OF THE UTERUS.

The author first described the various modes in use for the artificial induction of labour, and showed how their action was limited either to parts remote from the uterus, or to the vagina, or to the cervix or cavity of the uterus. He laid down the proposition that the nearer the irritation is to the fundus uteri the more sure and speedy is the result, and, *vice versâ*, the nearer it is to the orifice of the uterus the more violent and protracted will be the resulting action. The grounds of this opinion were fully detailed, and proofs given from the practice of the several methods before referred to. The physiology of parturition was considered at some length, with the view of demonstrating that the first step in labour is the separation of the membranes from the uterus; in consequence of this the ovum becomes, as it were, a foreign body, and the uterus begins at once to contract in order to effect its expulsion. Such being the *rôle* in natural labour, the author contended that our efforts in the artificial induction of it should aim at imitating this process, and such, he stated, was the effect of his method. Several circumstances appeared to prove that the fundus uteri was much more sensitive than the rest of the organ, and hence the inference that to that situation attempts should be made to excite it to action when labour is required. The author next gave a description of the instrument which he uses for this purpose. It consists of a glass syringe, graduated to fluid measure, and capable of holding about eight ounces of water; the piston being in the form of a double screw, so elongated as readily to work up and down by mere pressure or traction. To the end of the syringe is attached a soft, flexible, metallic tube, about six or eight inches long, which is intended to reach the fundus uteri. This tube is first placed *in situ*. The syringe is then filled and fixed to the tube, great care being taken to secure the exclusion of air from every part of the instrument. When all is ready, the piston is slowly pushed down, and the fluid is injected up to the fundus uteri. Twelve cases were given at great length by the author, and the conclusions derived therefrom were, that in all uterine action was set up, two only requiring a second injection to increase the labour pains. The fluid used was warm water at 95° F. The quantity used was, in four cases, 6 oz.; in one, 5 oz.; and in the remaining seven, 4 oz. In all but one case labour pains began immediately, and continued until it was completed, in from three and a half to thirty-six hours, the mean duration being nineteen hours from the time of injection. In one case only death occurred, and that was in no way due to the operation. Nine of the children were born alive, one was still-born, and two died before the operation. Labour was induced for various reasons, and in all the cases the aim of the operator was wholly or partially attained. In the majority of cases no other preliminary measures were adopted beyond attending to the bowels.

Dr. Greenhalgh said he had listened with great attention to the paper of his distinguished friend, whose absence he deeply regretted, inasmuch as he differed from the author in many of the views contained in his communication. For instance, he was not aware that the fundus of the uterus was more largely supplied with nerves than other parts of that viscus; and until that was demonstrated he was not prepared to admit that that portion of the uterus was more sensitive and more alive to any exciting cause than other parts of the organ. He considered that so far from the fundus being less exposed to irritation than the cervix during pregnancy, it was much more so, owing to the position of the fœtus, and the almost constant movement of its limbs throughout a great period of pregnancy. Upon the assumed greater sensitiveness of the fundus over other parts of the uterus, the author appeared to base his recommendation that in the induction of artificial premature labour our endeavour should be to arouse the excitability of the fundus, to which end he recommends the injection of fluid. Dr. Greenhalgh considered that it was far more rational to imitate nature as nearly as possible; and as labour was initiated by certain changes taking place in the neck, which by reflex action caused contractions of the body and fundus of the uterus, our first aim should be to set up irritation in, and subsequently to secure dilatation of, the neck—a plan he had pursued for many years with the best results. Nor did he consider the injection of water into the uterus unattended with risk. In one case—the only one in which he had had recourse to that method—alarming symptoms followed; and he had been informed by a former President of this Society of another case in which the death of the patient ensued—a lady in whose case he had twice brought on labour prematurely by puncturing the membranes. With the spongetent, and ergot in repeated doses, he (Dr. Greenhalgh) had never failed to bring on and terminate labour safely. In some few cases where the membranes were very tough, he had deemed it expedient to evacuate the liquor amnii after partial dilatation had been effected, so as to expedite labour.

Dr. Meadows regretted very much that so little time was left for the due discussion of this paper, which he regarded as one of great value and importance. He believed it would be found that the views propounded by Professor Lazarewitch, in regard to the physiological action of the uterus in the commencement of labour, were more correct than those advanced by Dr. Greenhalgh. He felt convinced that, as regards the uterus in natural labour, contraction of the fundus or of the body, or both, preceded any change in the condition of the os and cervix; and the fact stated by Dr. Greenhalgh, that dilatation of the os was the first apparent sign of the commencement of labour, must, he thought, be regarded as proof of some antecedent action above that part. For it was obvious that contraction of the os and cervix was antagonistic to dilatation. Holding this view, therefore, and believing that separation of the membranes from the uterus and subsequent contraction of its upper part were the earliest steps adopted by nature for the accomplishment of labour, he was inclined to agree with the author of the paper in the practice he had recommended. He could not regard the operation as one in-

volving such dangerous consequences as had been suggested; for he had injected the uterus under these circumstances many times, and had never seen any evil results. He had been struck with the facility with which Professor Lazarewitch's operation could be performed; and he should certainly adopt it when opportunity offered.

Dr. Murray and Dr. Martin expressed themselves satisfied, from personal experience, both as regards the safety and the certainty of the operation.

OBITUARY.

JOHN LAVIES, F.R.C.S.

We regret much to have to announce the death of this well-known and highly esteemed Surgeon. Few of his contemporaries have obtained a larger amount of the confidence of the public, or have enjoyed in a higher degree the regard and respect of his own Profession, than the late Mr. Lavies. He was born in 1799, and had therefore attained his sixty-eighth year. His long Professional career had been a very successful one. He became a Member of the Royal College of Surgeons in 1819, and a Member and Licentiate of the Hall in 1820. On obtaining his qualifications, he at once entered on a large practice in Westminster in conjunction with Mr. Hanbury. He was soon appointed Surgeon to the House of Correction, an appointment he held for the long period of forty-five years. He also held an appointment in the parish of St. Margaret and St. John, Westminster, first as Accoucheur, and then as Medical Officer to the Workhouse. The former appointment brought him into large obstetric practice, and he was frequently consulted by his brother Practitioners in cases of difficulty. Besides these posts he filled the office of Surgeon to several of the Westminster charities, amongst them Emanuel's Hospital, Palmer's Charity, etc. He was also Surgeon to the Invalid Artillery stationed in St. James's Park, and to the household of the War Department, and for many years to the households of the Home, Colonial, and Foreign Offices.

Notwithstanding the duties imposed by these numerous appointments, and the constant calls of a large private practice, Mr. Lavies always found time to devote to any project which had for its object the benefit of his Profession. It will be remembered that, in testimony of the services he had rendered the Profession as Treasurer to the Medical Registration Society, in which post he succeeded Sir William Fergusson, a public dinner was given to him in 1865. He was Vice-President of the Royal Medical Benevolent College, and a Councillor of the Medical Benevolent Fund. His heart, head, and hand were always ready to help forward everything that was good, generous, and kind. He was excellent in all the relations of life, and it is no mere figure of speech when we add that he was beloved by all who knew him.

NEW BOOKS, WITH SHORT CRITIQUES.

On the Signs and Diseases of Pregnancy. By T. H. Tanner, M.D., M.R.C.P., etc. Second Edition. London: Renshaw. Pp. 472.

*** This valuable work has been so thoroughly revised that it might be considered absolutely a new one. The author's more extended experience has enabled him to add greatly to its practical value, and it now stands forth the best book on the subject. The illustrations are good and the printing excellent. Both author and publisher have well fulfilled their relative tasks.

An Introduction to Pharmaceutical Chemistry. By John Attfield, Ph.D., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain. London: John Van Voorst. Pp. 447.

*** The plan of this work is unique. It is intended to instruct the student in chemistry by conducting him through a series of experiments, the bearing of each of these on the chemistry of the British Pharmacopœia being clearly and carefully explained. Synthetical and analytical operations are also kept distinct – a point we consider of importance, as tending to remove confusion from the mind of the student. As an introduction to chemistry for the pharmaceutist, the work is most admirable. We must not omit to mention that it is illustrated by some beautiful plates, mostly illustrative of salts, but there are some representing products of the human body.

St. Bartholomew's Hospital Reports. Edited by Dr. Edwards and Mr. Callender. Vol. III. London: Longmans. Pp. 486.

*** The third volume of these reports has just appeared, and this year is about twice the size of last year's production. A capital feature is the introduction of articles by old pupils of the school now connected with other Hospitals. The gentlemen who have thus contributed to the present volume are—Mr. Delagarde, Exeter; Mr. C. Jewel Evans, Northampton; Dr. Head, Carlisle; Mr. Prichard, Bristol; Mr. Moore, Middlesex Hospital; and Professor Turner, Edinburgh. Of the papers contributed by the members of the staff, we need hardly say that all are good—so good that to select any as the best would seem invidious. We may, however, without prejudice refer our readers to Mr. Paget's article on Senile Scrofula, Mr. Savory's on Pyæmia, and Dr. Dyce Duckworth's on the Passage of certain Substances through the Kidneys, as especially worthy of attention.

Etudes sur la Tuberculose. Par J. A. Villemin, Professeur Agrégé à l'Ecole Impériale du Val-de-Grace. Paris: Baillière.

Studies on Tuberculosis. By J. A. Villemin, Professor Adjunct at the Imperial School of the Val-de-Grace. Pp. 640.

*** M. Villemin, whose name is now so well known in connexion with the subject of tubercle and its inoculability, has, in this work, collected the results of all his researches, as well as an outline of what has been done by others. The first part is, however, occupied with a lot of general matter as to inflammation, temperaments, vitalism, etc., which had been much better omitted.

Obstetric Medicine and Surgery. By F. Ramsbotham, M.D., F.R.C.P., formerly Obstetric Physician to the London Hospital, etc. Fifth Edition. London: John Churchill and Sons. Pp. 752.

*** The new edition of this valuable work has been revised by its author, who has added to it a chapter on the diagnosis of pregnancy and an additional steel plate. Other improvements of less importance have also been made.

Egypt and the Nile considered as a Winter Resort for Pulmonary and other Invalids. By John Paterson, M.D., L.R.C.S., Egyptian Medical Service. London: John Churchill and Sons. Pp. 84.

*** A useful little volume on a subject with which we are not yet so thoroughly acquainted as is desirable, but which will add considerably to our knowledge of it. We regret that the hygrometrical tables of which the author speaks as lost, should have been so, as it is on that very subject exact information is most necessary.

Physical and Medical Climate and Meteorology of the West Coast of Africa. By J. B. Horton, M.D., Staff Assistant-Surgeon, etc. London: Churchill and Sons. Pp. 321.

*** We should like this volume better did it adhere more strictly to the subject it professes to deal with; but details as to simple meteorological facts, the construction and use of barometers, etc., can serve no good end, save to enlarge a tolerable-sized volume. Were these cut out, and a considerable amount of secondhand advice for the preservation of health in the tropics also deleted, there is quite enough valuable original matter to render this, the only work on the climate, etc., of Western Africa, of great value to all interested in the preservation of European life in that malarious region. As it is, the book is too big.

Clinical Illustrations of various Forms of Cancer. By Oliver Pemberton, Surgeon to the General Hospital, Birmingham. London: Longmans and Co. Pp. 128.

*** One of the most beautiful contributions to the literature of cancer we have seen. Illustrated by twelve fine large plates and many wood engravings. It contains many cases of interest, and may fairly be taken as the fruit of an extensive experience acquired by an earnest and painstaking clinical observer.

A Handbook of Gymnastics and Athletics. By E. G. Ravenstein, F.R.G.S., President of the German Gymnastic Society, London; and John Hulley, Gymnasiarch, Liverpool. London: Trübner and Co. Pp. 408.

*** One of the best works we have seen on the subject of heavy gymnastics, but intended rather for the guidance of the strong athlete than of the weakly invalid.

MEDICAL NEWS.

Apothecaries' Hall. — Name of gentleman who passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, October 24, 1867:—

Robert Alcock, Royal West Ophthalmic Hospital, London.

As Assistants in compounding and dispensing medicines:—

Henry Cooper, 15, Hanover-street, Leicester; William Bulgin, Blandford, Dorset.

The following gentlemen also on the same day passed their First Examination:—

William Gill, London Hospital; John Binns Southam, Manchester Royal Infirmary.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bacon, Dr. G. M., has been appointed Medical Superintendent of the Cambridgeshire Lunatic Asylum.

Churchill, Fleetwood, M.D., Pres. K. and Q.C.P.I., has been appointed Consulting Physician to the National Institution and Molyneux Asylum for the Blind of Ireland.

Denton, T. J., M.D., has been appointed House-Surgeon and Secretary to the Scarborough Dispensary.

Goldsmith, G. P., M.R.C.S.E., has been appointed Surgeon to the Infirmary, Bedford.

M'Clintock, J. R., M.D., etc., late Assistant-Physician Royal Asylum, Perth, has been appointed Physician to the Stretton Home and Grosse Private Asylums, Church Stretton, Shropshire.

Moore, W. D., M.D. Dub. et Cantab., L.K. and Q.C.P.I., and R.C.S. Edin., has been appointed Physician to the National Institution and Molyneux Asylum for the Blind of Ireland.

Rogers, Dr G. Goddard, M.R.C.P., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, *vice* Dr. B. W. Richardson, resigned.

BIRTHS.

GRIFFITH.—On October 18, at Portmadoc, the wife of Samuel Griffith, Esq., M.D., of a daughter.

HEARNDEN.—On October 24, at Sutton, Surrey, the wife of W. A. Hearnden, M.D., of a son.

JOB.—On October 27, at Newark-on-Trent, the wife of S. Job, M.R.C.S., of a son.

MORGAN.—On October 13, at High-street, Stamford, the wife of F. J. Morgan, M.R.C.S., of a son.

PAGE.—On October 23, at 106, Gloucester-place, Portman-square, the wife of W. E. Page, M.D., of a son.

WILLIS.—On October 24, at 45, Upper Brook-street, Grosvenor-square, the wife of F. Willis, M.D., of a daughter.

WILSON.—On October 22, at Park-house, Maida-hill West, the wife of H. Wilson, M.D., retired, Bombay Army, of a daughter.

MARRIAGES.

HADAWAY—THOMAS.—On October 18, at St. Peter's, Isle of Thanet, Dr. J. Hadaway, of Welbeck-street, Cavendish-square, to Mary Anne, widow of the late R. Thomas, Esq., of Huddersfield, and youngest daughter of the late R. D. Crofts, Esq., Margate. No cards.

HEWITT—BEALEY.—On October 24, at the Parish Church, Radcliffe, Manchester, D. B. Hewitt, of Dublin, M.D., to Mary Williams, eldest surviving daughter of R. Bealey, Esq., The Close, Radcliffe. No cards.

NAUGHTIN—ELLIS.—On October 22, at St. James's Roman Catholic Church, W. Naughtin, M.R.C.S.E., to Frances Gertrude Mary, youngest daughter of the late Major Ellis, formerly of the 13th Light Dragoons. No cards.

ROBERTS—MUSH.—On October 24, at Moretonhampstead, Devon, H. Roberts, M.D., of Paris, to Amelia, youngest daughter of the late J. Mush, Esq., of Scarborough. No cards.

DEATHS.

BANNATINE, R. C. A., Staff-Surgeon, of Glaisnock, Ayrshire, N.B., at Tunbridge, aged 50.

HARWOOD, T., L.S.A., of Wardwick, Derbyshire, on October 20.

HATFULL, R., M.R.C.S.E., at 417, New Cross-road, Deptford, on October 24, in his 80th year.

LAVIES, J., F.R.C.S.E, formerly of Great George-street, Westminster, at 34, Bessborough-street, S.W., on October 26, in his 69th year.

MORGAN, J. L., M.D., of Tegfynydd, near Tarberth and Haverfordwest, on October 19, aged 73.

POWER, J., formerly Surgeon to H.R.H. the late Duke of Kent, and Surgeon Extraordinary to H.R.H. the late Duke of Cambridge, at Leamington, on October 20, in his 87th year.

SIMPSON, G., F.R.C.S.E., of Gower-street, Bedford-square, on October 19, aged 62.

VACANCY.

WEST LONDON HOSPITAL, HAMMERSMITH.—Apothecary and Assistant-Secretary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Chipping Sodbury Union.—Mr. E. M. Grace has resigned the Fifth District; area 11,499; population 2816; salary £35 per annum.

Crediton Union.—Mr. John H. Tuke has resigned the Shobrooke District; area 4140; population 630; salary £8 8s. per annum.

Hatfield Union.—The First District is vacant; area 7990; population 1541; remuneration 10s. per case.

Luton Union.—Mr. P. V. Timothy has resigned the Markyate-street District; area 11,085; population 3853; salary £50 per annum.

Ross Union.—Dr. Fernandez has resigned the St. Weonard's District; area 15,110; population 3208; salary £67 10s. per annum. No fees.

APPOINTMENTS.

Alderbury Union.—Fitzroy P. Darke, M.R.C.S.E., L.S.A., to the Fourth District and the Workhouse.

Derby Union.—Robert Hamilton, M.R.C.S.E., L.S.A., to the North District.

Liverpool Parish.—Robert Robertson, M.D. Edin., M.R.C.S. Edin., L.S.A., to the Ninth District.

ROYAL COLLEGE OF SURGEONS.—With reference to the notice which appeared in the *Medical Times and Gazette* last week, respecting the additional fees to be required henceforth from rejected candidates, it will be seen how necessary is this regulation from the following statement of the number of rejections during the past collegiate year, from July to July, when, out of 556 candidates for the Primary Examination on Anatomy and Physiology, no less than 134 were referred to their studies. During the same period 423 candidates for the Pass Examination on Surgical Anatomy and the Principles and Practice of Surgery were examined, and 68 referred to their Hospital studies, making a total of 202 rejections in one year.

PRIMARY EXAMINATIONS.—The first examination in Anatomy and Physiology for the present session at the Royal College of Surgeons commences this day, Saturday, and it is stated that the number is rather in excess of the corresponding period of last year.

HEALTH OF THE FRENCH EMPRESS.—The Nice journals state that Baron Hausmann has taken the Villa Fremy in that town for the Empress of the French. It is said that the Empress proposes to try the restorative effects of the climate of Nice.

THE CATTLE PLAGUE.—The numerous reports of the outbreak of cattle plague at Norwich, which appeared in last week's papers, turn out to have been without foundation. Professor Symonds, who was sent down by the Privy Council to inquire into the matter, states that the animals which have died had been attacked by gastro-enteritis.

A NEW QUARANTINE.—An Order in Council directs the Liverpool Customs authorities to impose quarantine on all vessels entering British ports from places within 52° and 100° west longitude and 4° and 34° north latitude. The quarantine is in every case to be maintained until a Medical examination is made of those on board.

WATER SUPPLY OF LONDON.—The Report of the Commission on this subject will, it is said, soon be published, but in the meantime the conclusion it will embody has got wind, and is, we believe, in favour of the existing system. It is stated that of the several eminent engineers examined the majority were in favour of a purer and more distant source than the Thames, but it seems that the influence of the existing water companies is too strong to admit of the recommendation of any other scheme than that now in operation.

SOCIAL STATUS OF WORKHOUSE MASTERS.—In a letter to the *Times* of Thursday, Dr. W. Domett Stone calls attention to the fact that, as a rule, the education and general social status of the masters of workhouses are below what the official position in which they are placed ought to demand. He thinks that an alteration of the standard of requirements for the posts of master and matron should be the first step in workhouse reform. Until something is done to produce a better class of masters than the present, it is idle to think of completely preventing such abuses as those recently disclosed. So thinks Dr. Stone, and he has supported his opinions with a good deal of sound argument and apt illustration.

MEDICAL REGULATIONS OF THE UNIVERSITY OF CAMBRIDGE.—The Board of Medical Studies has issued for the information of Medical students a long list of the Hospitals and schools at present recognised by them. This list includes nearly every recognised school in the world. The Board has resolved that, for the time claimed by the student as passed in Medical study out of the University, evidence shall be required of attendance on lectures in one of the schools named in the list, or on the practice in one of the Hospitals recognised.

PROPOSED HOSPITAL FOR INCURABLES.—At a meeting of the Governors of the Radcliffe Infirmary at Oxford on the 24th ult., a letter was read from a lady, residing at Leamington, stating that a sum of £1000 had been placed in her hands towards founding a Hospital in connexion with the Radcliffe Infirmary, to be called St. John the Evangelist's Hospital for Incurables. The subject was referred to a select committee to report to the general meeting.

THE MIDDLESEX HOSPITAL MEDICAL SOCIETY.—The opening meeting of this thriving Society was held on Thursday evening, October 23, Mr. Reeves, president, in the chair, when Dr. John Murray read a paper on "The Tobacco Plant, its Use, and the Pathological Effects resulting from its Abuse." Dr. Murray mentioned that, from a series of experiments he had performed, he had come to much the same conclusions as Dr. E. Smith on the effect of smoking on the pulse, an increase of about thirty beats per minute having been observed after continuing to smoke for twenty minutes or half an hour. He doubted strongly the effect of the pipe in predisposing to, or exciting, epithelioma of the lip, and brought forward Lemarchand's observations, among many others, in support of this, but said that there were very strong reasons for believing that a peculiar form of amaurosis, lately much discussed, was due to the abuse of tobacco. The attendance was very large, and a warm discussion was kept up till a late hour.

PRACTICAL HYGIENE.—Some time since the Secretary for War appointed a committee to inquire into the cause of the reduced mortality of the French army in Algeria. The committee, consisting of Dr. Sutherland, Deputy-Inspector-General of Hospitals, J. G. Paynter, Major C. B. Stewart, R.E., and Mr. R. S. Ellis, C.B., of H.M. Indian Civil Service, have published a report full of interest to all military hygienists. The inquiry was most comprehensive, and the summary of sanitary improvements found to reduce mortality will, we

trust, receive the careful consideration of our military authorities. The main points to be noticed are the drainage of unhealthy localities, good rations and cooking, improvements in dress, the use of flannel belts, the construction of barracks and Hospitals at all stations, a better water supply, an able Medical service, and the extensive use of quinine. How forcibly confirmative of Dr. Parkes's opinion on the subject of military dress is this one passage from the report—"*Such a thing as a tight article of dress is not to be seen in the Algerian army.*"

YELLOW FEVER AT THE MOTHERBANK.—An order was issued on the 19th ult. by the Lords of the Privy Council to release the passengers on board the *Parana*, the crew on board the *Æolus*, and all persons on board the *Tasmanian*, provided all were in good health, at noon of Monday, the 21st. As no disease or fresh cases had occurred on board these vessels up to the appointed time, they were released from the imposition of quarantine restrictions, and at once proceeded on to their port of disembarkation, Southampton. Some invalids still remained under quarantine on board the Hospital ship *Menelaus;* but they are all convalescent. We had recently occasion to make some brief observations relative to the serious mortality which obtains so frequently on board the Royal Mail Company's splendid fleet of steamers, and we cannot refrain from again drawing the attention of the Royal Mail Company to this painfully significant state of matters. We would ask how it is that they still persist in sending their steamers to the poisonous coal wharf at St. Thomas's, after their experience of five or six epidemic visitations of yellow fever, and the fearful mortality that has invariably followed amongst their officers and crews. We believe that we are within the bounds of accuracy when we state that not less than from fifteen to twenty Medical officers have fallen victims to yellow fever during the last fifteen years! We are informed that two other companies run from St. Thomas to St. Nazaire in France and Liverpool, and that the passengers and crews of these steamers enjoy an immunity from attacks of yellow fever which surpasses our comprehension. The explanation may rest upon the fact that both companies take their living cargoes to a different wharf, and, instead of detaining their crews for fourteen days in a pest-hole, they only detain them twenty-four hours for coaling purposes.

FECUNDITY.—The present diminution of the French population would soon be put a stop to if all mothers were as fertile as one *femme* Corte, wife of a poor agricultural labourer, who was recently delivered of three fine healthy girls. Fifteen months ago she had twins, being already the mother of a boy and a girl.

AT a meeting of the Officers of Health Association on the evening of Saturday week, Mr. Liddle in the chair, Dr. Letheby brought forward some important statistics with regard to ventilation. He started off by indicating the proportion of oxygen a man consumed in twenty-four hours, which, he stated, was about 16,000 cubic inches. He then proceeded to discuss the amount of carbonic acid found in the atmosphere under various circumstances. The average amount was 4·9 in 10,000 parts; 4·5 was considered good, and 4 a model air. For a town 5·5 would be considered good; in rooms it was usually 6, in sleeping-rooms from 23 to 80 (there should never be over 10); workshops sometimes contained as much as 50 in 10,000, but should not have more than 20. After alluding to the supply of air per hour necessary for an individual, and the consequent amount of space each should have, he proceeded to point out the plans of ascertaining the amount of carbonic acid and of oxygen present in any atmosphere. The carbonic acid might either be absorbed by potash and weighed, or a certain size of bottle might be used along with baryta water, and a rough approximation made by ascertaining what number of bottles of air were required to produce turbidity. The oxygen was estimated by means of pyrogallic acid, which absorbed it, and the consequent diminution of volume ascertained. By this means it was found that the proportion of oxygen present in certain atmospheres, instead of being 21 in 100, was in a close room 20·89, in a theatre 20·74, in mines 20·65. Dr. Pavy observed that, in dealing with such subjects, too much attention was paid to carbonic acid and oxygen; other gases he considered of much more importance. Carbonic acid in the atmosphere was only dangerous inasmuch as it prevented the evolution of the same gas from the blood; if any other gas were substituted, the evolution went on, and poisoning did not take place. To estimate the proportions of oxygen in the atmosphere, again, was useless; for he had repeatedly put a bird in a close vessel where the carbonic acid could not be removed, when it soon died, but if placed in a similar vessel with caustic potash, to remove the carbonic acid, it might live until there was only 2 per cent. of oxygen in the atmosphere.

IN connexion with the subject of duty, and how it had been nobly performed by students trained within these walls, he referred to the comparatively recent burning of her Majesty's ship *Bombay*, which was attended with the loss of about 100 lives, the only commissioned officer, however, who perished, having been the senior Assistant-Surgeon, John Keville Smallhorn. Up till the last moment, when the half-burned spars were falling from aloft, and the boats pulling away, he was seen at one of the sick-berth (hospital) ports, getting out the sick in the midst of the surrounding fire and smoke. One of the lieutenants shouted "Jump overboard, or you will be lost." He did so, following his last patient, a boy. When they reached the water, a burning spar struck poor Smallhorn on the head, when he sank never to rise. Dr. Moore went on to say—"This noble fellow was educated in this venerable Hospital, and in the Ledwich School of Medicine, and it would ill become me, representing as I do both these institutions to some extent, to let this opportunity pass without expressing the admiration we must all feel for such heroic conduct; and, whilst we must deplore the loss of such an *alumnus* as Assistant-Surgeon Smallhorn, still our regret is qualified by the reflection that he could not have lost his life in a better cause than in saving the helpless sick, who without him must undoubtedly have perished."—*Dr. Moore's Introductory Lecture, Mercer's Hospital, Dublin.*

BILIARY CALCULUS IN THE ILEO-CÆCAL APPENDIX.—M. Louis Figuier, the well-known writer on popular science, has just lost his eldest son, at the age of 18, through a somewhat unusual affection. A very small biliary calculus having become engaged in the ileo-cæcal appendix, gave rise to the production of an abscess, which, bursting into the peritoneum, induced an attack of peritonitis, which proved rapidly fatal.

BEAUTIFUL COFFINS.—It is at Pesth where you may see perhaps the most beautiful women and the most beautiful coffins—a singular conjunction truly, but one I may well employ, since it is realised every minute as you traverse the streets of this capital, in which the manufacture of coffins is indeed a flourishing one. You meet with sumptuous shops entirely filled with these sad necessaries, and which are displayed to view with all the art and coquetry calculated to attract customers. They are for the most part luxurious and fancy coffins, and are of all dimensions and forms and of every colour, so as to suit all tastes. Almost all are sought to be rendered attractive by the most capricious and strange metallic ornaments. The people in the East, like those of the South, look upon death with less sadness than the inhabitants of the North. Regarding it under a less sombre colour, they give it a less lugubrious receptacle, the brightness of their sun, the azure of their skies, and the luminous purity of their atmosphere, lightening up their tombs, and surrounding them by a radiating tint unknown to our cloudy climates. — *M. Guibourt, Notes de Voyage, Union Médicale,* October 22.

MORTALITY IN THE FRENCH ARMY ACCORDING TO LENGTH OF SERVICE.—According to the documents issued by the Minister of War for the years 1862-65, the following are the proportions:—

Service.	Deaths per 1000 of effective.	
	Disease.	Suicide.
Under 1 year	12·96	0·27
1 to 3 years	13·48	0·32
3 to 5 ,,	11·08	0·41
5 to 7 ,,	7·83	0·57
7 to 10 ,,	7·36	0·80
10 to 14 ,,	6·82	0·81
Above 14 ,,	8·82	0·93
Mean	10·06	0·53

MUD HEAPS.—The half-liquid mud charged with animal impurity, which is scraped from the streets by the scavengers, is still stored in enormous quantities in the very centre of the parish, and in a closely inhabited neighbourhood. Here it is allowed to decompose gradually until it attains the proper consistence for exportation, during which process offensive gases and other more dangerous products of putrefaction are freely disengaged. If it were intended to contrive an arrangement for developing malaria in the midst of a town population, nothing could be better adapted for the purpose. In fact, the conditions are

precisely those which are recognised as the source of danger in those countries in which malarious diseases are endemic. There are three ways in which the material swept from the paved streets and macadamised roads becomes a source of disease. By the use of grit as an ingredient in mortar, a quantity of animal matter containing infectious germs is introduced into the construction of the houses of the poor. This practice affords, as I have been long convinced, the true explanation of the otherwise inexplicable fact, that, although as a rule newly built houses are better provided with sanitary appliances and better drained than old houses, contagious diseases, and especially scarlet fever, prevail more fatally in the former than in the latter. I would further instance the use of slop collected from macadamised roads, as a material for constructing roadways, which has long and justly been regarded as a fruitful source of unhealthiness. Lastly, the storage of slop alluded to above.—*Sanitary Report for the year* 1866-67 *by J. Burdon Sanderson, M.D.*

DIGESTION OF ALBUMEN BY PANCREATIC JUICE.—The researches of Herr Kühne, recently reported to the Berlin Academy, prove that the secretion of the pancreas has the power of digesting albuminous substances. Herr Kühne produced artificial fistula in twelve dogs, and found that the viscid pancreatic juice extracted by the fistula dissolved large quantities of boiled white of egg in from one and a half to three hours, and at a temperature of about 40° Centigrade. The albumen was converted into peptone, which is not coagulable, and which has the power of ready diffusion through animal membrane. This transformation takes place, according to Herr Kühne, without the intervention of low organisms, and without the production of odour. His experiments on the digestive action of pancreatic juice artificially prepared led Herr Kühne to much the same results. The solution was prepared by macerating the gland in water, and filtering. The artificial juice converts fibrin first into a soluble body, which eventually becomes peptone; this, in its turn, gives rise to leucine, tyrosine, and an extractive matter. If the pancreatic fermentation be continued, basic bodies and fatty acids make their appearance. That these processes take place also in the living animal is proved, says Herr Kühne, by the odour of naphthylamine from the excreta, and by the production of volatile fatty acids in the large intestine.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

A Constant Reader.—Flannel *ad libitum*.

A. B. C.—Messrs. Cadbury's cocoa essence, Birmingham.

Erratum.—In the abstract of Professor Vulpian's lectures in the *Medical Times and Gazette*, p. 468, col. 2, nine lines from bottom, read *elasticity* instead of *electricity*.

Omphalos.—The work you refer to is the production of Mr. Philip Henry Gosse, an amiable and religious man, but one who has permitted himself to revel in the wildest dreams, and to support them with the wildest arguments, in an effort to uphold what he believes to be the cause of truth and orthodoxy. He proclaims what he fancifully calls a law of *prochronism* in creation—*i.e.*, a law according to which each species of animals was created *nettement*—*i.e.*, a certain number of adult specimens of each species of plants and animals were created out of the dust and put upon the earth in the full possession of all the structures and functions and anatomical characteristics of such adult and perfect animals and plants. For instance, an adult tree, created at some given moment, he affirms to have been created like any other tree that had been raised from seed; showing successive concentric rings of wood and bark, and scars as if of leaves and twigs that had dropped off. But all these marks of pre-existent growth were *forgeries*: they testified to a growth that was never gone through. So again, an adult man, fresh created, must have a navel, though he never had an umbilical cord, and never was within the womb of a mother; he has a round ligament to his liver, though the vein of which it is a relic never carried blood. Remains of thymus, of umbilical arteries, etc., will be there, though these organs never existed; in fact, the animal, created plump or point-blank as he stands, will have in his body the marks of fœtal development which never was gone through; nay, with fæces in his newly created bowels, the remains of food which he never ate. But *if this be true*, argues Gosse, then the stratification of the earth, and the fossil remains abundantly found there, may also be vestiges of a state of things which never existed, and may have been put there by the Creator, in order to create an earth with as much evidence of adolescence as a newly created man would have! Singular that a sane man should think he is doing honour to God by inventing such crazy speculations, and by making, as he does, the doctrine of the perpetuity of specific characters an article of faith.

H. Hastings, M.D.—Oxygen gas is one of the recognised remedies for chloroform poisoning.

Dr. B. Roots.—Messrs. Long, Vincent, Stanley, and Green practised in Lincoln's-inn-fields.

C. A. E.—The plan of Fulham-bridge was drawn by the celebrated Cheselden.

A Bencher, Lincoln's-inn.—Messrs. Diprose and Bateman, of Portugal-street, are publishing a work on the subject, which will no doubt give you the desired information.

Dr. Mackenzie.—Professor Owen succeeded the late Sir Charles Bell as Professor of Anatomy and Physiology at the Royal College of Surgeons.

Erratum.—In our article on the Army Medical Reports in last week's number, p. 463, the rate of sickness, mortality, and invaliding among the Household Troops is shown as per cent. instead of *per mille*.

ECONOMY IN COOKERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am interested in your account of the new and cheap method of cooking, and have thought much over your article on the subject. The principle is good, but in practice it may be negatived by inattention to detail. You probably know how had a conductor of heat beef or other meat is. Now, suppose you put into a saucepan a leg of mutton weighing say five pounds, and about three or five pints of water, just to fill up to the top of the pan. It is clear that if you only just raise the whole to the boiling-point and then put the whole aside in the apparatus described, the mutton will slowly take the heat from the water, but will not raise the meat to the heat necessary for the due coagulation of its albumen. When you recur to the subject it would be well to direct attention to the necessity for plenty of water, etc., so as to insure a large body of heat.

October 28. I am, &c. T. I.

INTUSSUSCEPTION OF THE RECTUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A few days ago I was called to the following case:—Catherine T., aged 6 years, first taken ill with excessive straining; a motion came away, but stopped suddenly, and nothing further came after a couple of days' continued tenesmus. When I saw her she was passing a quantity of clear viscid mucus. On examining the rectum, when in the act of straining, the external sphincter became relaxed so as to admit the forefinger easily, without contracting on it, and an uninterrupted view was had of a large round fleshy-looking tumour at the depth of about three inches from the anus; at each effort of straining this came down and pressed on the sphincter. On passing my finger up and around this mass, it appeared to be about the size of an egg, round, hard, and fleshy to the touch, with a constricted neck. I replaced it as far as I could, but it returned again at the first straining effort. On inquiring I found the child had been subject to "her body coming down" since her birth, so I naturally thought it a severe case of prolapsus recti. I ordered her opium and plumbi acetas as a suppository, and tinct. opii with potassæ nitras every four hours internally. This had the effect of allaying the terrific tenesmus, but the suppositories could not be kept up, and the excessive mucous discharge continued. On the following day I again introduced my finger, and tried to slip the intussuscepted portion back through the neck, but could make no impression on it. I also tried to peel it, as it were, out of the neck by degrees, but this also failed; the sphincter still kept relaxed; straining efforts worse; tenderness in left iliac fossa; pulse 122 and wiry; face pale and indicative of great pain, but she became quite cheerful on taking her medicine. About a week after I first saw her, the fleshy mass became greenish and ulcerated; mucous discharge more in quantity, and streaked with blood; extreme tenderness over the abdomen. I ordered her poppy-head fomentations, with calomel and opium at bed-time, and called in another Medical man. On examining her he agreed with me that it was a case of intussusception of the second part of the rectum. I proposed to make an opening in the fleshy mass, thinking the hardness was caused by fæces; he consented, and I did so; nothing but a little blood was the result. A few days after this I was called in a great hurry, and found that in one of the straining efforts the mass had come outside the anus. On examining it, it looked like a lump of muscle covered with mucous membrane; this in some parts was highly congested, in others ulcerated to the depth of a quarter of an inch, and close to the neck it was in folds, quite fresh-looking. I oiled it well, and replaced it, but before I left the house it was down again. I then contrived a sort of pessary and bandage around the waist and between the thighs, but the straining was so great that it forced the plug on one side, and the tumour came down worse than ever. The pain in the bowels increased; vomiting came on, first of the contents of the duodenum, with bile, then stercoraceous. She gradually got weaker; more of the rectum came down, and the mucous discharge became excessive. I proposed the operation for artificial anus, but the friends would not consent, and the child died with every symptom of peritonitis.

Autopsy about twenty-four Hours after Death.—On cutting into the peritoneal sac, a quantity of clay-coloured fæces came into view, but the stench was so great that it prevented a minute examination. However, I succeeded in finding a ruptured piece of gut just above the second part of the rectum, and the intestines gave every indication of recent peritonitis. I found, on cutting into that part of the rectum which came outside, one solid mass, evidently hypertrophied from excessive congestion. A small canal, large enough to admit a bristle, could be traced irregularly through the tumour, but, more than this, there was nothing to indicate that it had been intestine at all. I am, &c.

Grantham, October 19. ROBERT VACY ASH.

THE TRUE NATURE OF OZONE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having perused an editorial article that appeared in the columns of your journal of the 5th instant, containing a brief account of the true nature, history, and action of ozone, I cannot refrain from offering a few observations on this peculiarly interesting subject, in the hopes of eliciting a reply from amongst those of your numerous readers who have devoted their time to the study of the higher branches of the natural sciences. We are told that when oxygen is submitted to a current of silent electricity it gradually becomes changed in its nature, being both condensed in volume, emitting a peculiar odour, and exhibiting a great affinity for certain substances, by which it is greedily absorbed; in short, it is converted into what is technically called ozone, a very small propor-

tion of oxygen only being subject to this change. This not only proves the power electricity pos-esses in modifying the condition of the more diffusible elements, whose feeble plasticity renders them exceedingly prone to be swayed and even altered in character by the affiux of any extraneous influence calculated to hasten that development to the more stable bodies, as seen in Faraday's beautiful experiments, in which a ray of light was made to assume different colours by a parallel current of electricity being passed on either side of the same, but also, and distinctly, demonstrates the duality of atom, not existing side by side as the mere repetition of the same molecule, inseparately united, but being identical with ultimate points of force and capable of exhibiting oppo-ite principles, the negative and positive, the attractive and repulsive, the central and peripheral. Thus matter and power are indelibly united; the one representing the formative principle and gravitating towards arrest, the other signifying motion and being synonymous with development.

Hitherto this duality of chemical equivalence has been recognised as appertaining to oxygen alone, according to the researches of many distinguished chemists; but, reasoning from analogy, we are scarcely justified in restricting this property to any one body in particular, but, on the contrary, are forced to the conclusion that it is held in common by all matter, every substance, indiscriminately of its relative position or individual character, being capable, in its ultimate atoms, of exhibiting the same twofold principle as enunciated above, assuming two opposite states, in accordance with the universal law of polarity. Thus, if this axiom be true, not only oxygen, but all the gasous elements, must, in the same degree, be liable to be acted upon by electricity—*i.e.*, be capable of ozonisation, each undergoing similar changes to oxygen when subject to the operation of the same cause. Let us, for example, take hydrogen, which, from being a simple element, familiar to all, and diametrically opposed in its nature to oxygen, is best calculated to serve as an illustration.

A current of electricity, when brought to bear upon this highly expansive element, must have the same effect in modifying the nature of hydrogen as it has in altering the characteristic properties of oxygen—in short, be capable of, so to speak, converting the former into a species of ozone. Thus changed in its nature, the action of hydrogen must also, in some degree, have undergone a modification; so that, when brought together with oxygen under a eudiometer, and exploded by an electric spark, both being in a state of ozonisation, a product might be obtained differing in character and composition from the mere aqueous fluid otherwise resulting from such a proceeding.

What the exact properties of such a compound might be, can, of course, only be determined by repeated experiments; but thus much is certain, that, if these prove successful, a wide field for future chemical investigation lies open, which, if carefully worked, may lead to discoveries of the utmost importance, and perhaps assist in throwing some additional light on the nature and origin of chlorine, the affinity of which to oxygen is by no means so remote as is generally supposed, and whose character as a simple and irreducible element, in spite of the almost universal opinion to the contrary, still continues, with some men of the highest scientific attainments, to remain an open question. Apologising for the length of this communication,

I am, &c.

Kingstown. F. E. Jenckes, M.D., M.R.C.P. Lond.

COMMUNICATIONS have been received from—

A Constant Reader; Dr. Gervis; Dr. Laycock; Dr. Dowson; Dr. Hastings; Dr. Johnson; Mr. Spencer Watson; Dr. Richmond; Mr. Case; Mr. Kemp; A. B. C.; T. J.; Dr. Moore; Dr. Sedgwick; Mr. Matthews; Dr. Ball; Mr. Dix; Mr. J. J. Trayer; Mr. Curgenven; Dr. B. W. Richardson; Mr. J. Chatto.

BOOKS RECEIVED—

Stillé on Epidemic Meningitis—Doherty's Organic Philosophy, Vol. II.—Haliday's Statistical Inquiry—Duncan's Medical Investigator, No. 49—Winchester County Hospital Report—Victoria Magazine, No. 55—American Journal of Medical Science, No. 108.

NEWSPAPERS RECEIVED—

Jamaica Gleaner—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 26, 1867.

BIRTHS.

Births of Boys, 1135; Girls, 1063; Total, 2198.
Average of 10 corresponding weeks, 1857-66, 1922·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	610	629	1239
Average of the ten years 1857-66	611·5	587·6	1199·1
Average corrected to increased population..	..	..	1319
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	7	3	1	6	4	..	..
North ..	618,210	2	9	9	..	5	18	11	1
Central	378,058	2	2	5	1	6	4	2	..
East ..	571,158	2	5	7	..	5	9	6	1
South ..	773,175	..	8	12	2	3	10	8	1
Total ..	2,803,989	8	31	36	4	25	45	27	3

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·918 in.
Mean temperature	52·1
Highest point of thermometer	63·9
Lowest point of thermometer	35·8
Mean dew-point temperature	49·6
General direction of wind	S.W., S.S.W., & S.E.
Whole amount of rain in the week	0·02

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 26, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Oct. 26.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Oct. 26.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2198	1421	1239	66·9	35·8	52·1	0·02	2
Bristol (City)	165572	35·3	104	74	171	65·5	37·3	52·6	0·11	11
Birmingham (Boro')	343948	43·9	235	167	162	65·3	35·7	50·5	0·18	18
Liverpool (Borough)	492439	96·4	387	285	239	65·4	44·5	52·6	0·37	37
Manchester (City)	362823	80·9	267	205	180	69·5	38·7	52·6	0·28	28
Salford (Borough)	115013	22·2	90	58	69	69·5	39·0	51·5	0·31	31
Sheffield (Borough)	225199	9·9	179	119	98	65·2	39·1	51·0	0·40	40
Leeds (Borough)	232428	10·8	155	118	103	70·0	35·8	52·2	0·27	27
Hull (Borough)	106740	30·9	91	49	49	65·6	35·0	50·6	0·21	21
Newcstl-on-Tyne, do.	124960	23·4	74	66	77	63·0	42·0	52·8	0·08	8
Edinburgh (City)	176081	39·8	128	85	82	62·7	32·0	50·7	0·10	10
Glasgow (City)	440979	87·1	322	257	201	63·1	37·8	50·5	2·13	215
Dublin (City and some suburbs)	319210	32·8	146	†157	120	67·6	37·8	54·2	0·73	74
Total of 13 large Towns	6187764	34·8	4382	3061	2890 Week ending Oct. 19.	70·0	32·0	51·8	0·40	40
Vienna (City)	(1863) 560000	..	..	..	255	Week ending Oct. 19. ..	..	§48·9	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·918 in. The barometrical reading increased from 29·59 in. at the beginning of the week to 30·09 in. on Tuesday, Oct. 22.

The general direction of the wind was S.W., S.S.W., and S.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 52·5°.

APPOINTMENTS FOR THE WEEK.

November 2. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

4. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Epidemiological Society, 8 p.m. Dr. G. W. Dickson, of Constantinople, "On the Outbreak of Plague at Kerbela." Dr. John Shortt, General Superintendent of Vaccination, Madras Presidency, "Experiments connected with Small-pox Inoculation and Vaccination."

Medical Society of London, 8 p.m. Mr. Spencer Watson, "On Some Obscure Surgical Diseases of the Face."

Royal Institution, 2 p.m. General Monthly Meeting.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

6. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

Obstetrical Society of London, 8 p.m. Dr. Barnes, "Illustrations of Face Presentations." Dr. Murray, "Seven Cases of Ovariotomy." Dr. Braxton Hicks, "On the Condition of the Uterus in so-called Powerless Labour." Dr. Snow Beck, "A Case of Puerperal Fever, or Puerperal Pyæmia, with Remarks." Dr. Playfair, "On Cardiac Apnœa after Delivery."

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. C. Drysdale, "On the Treatment of Syphilis; opened by a review of the recent debate in the Société de la Chirurgie of Paris."

8. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

LECTURE V.—PART I.

THE FORCEPS IN DISPROPORTION OF THE PELVIS: DEGREES OF DISPROPORTION: INDICATIONS IN PRACTICE—THE MECHANISM OF LABOUR IN CONTRACTION FROM PROJECTING PROMONTORY: THE CURVE OF THE FALSE PROMONTORY—DEBATABLE TERRITORY ON THE CONFINES OF THE SEVERAL OPERATIONS—PENDULOUS ABDOMEN: THE CAUSE OF DIFFICULTY IN PENDULOUS ABDOMEN: SUSPENDED LABOUR: THE MODE OF MANAGEMENT.

Now we have to consider what the forceps can do in cases of disproportion—for instance, where the brim is too small to allow the head to pass by the unaided powers of the uterus. This brings up the problem of the compressibility of the head under the forceps, and the comparison of the advantages of the forceps with those of turning. The degrees of contraction of the brim may be classified approximatively in the following manner:—

Scheme of Relation of Operations to Pelvic Contractions, Labour at Term.

	Conjugate diameter reduced to	
The first degree	4 to 3½ in.,	admits the forceps, opposed to the bi-parietal diameter of 3½ to 4 in.
The second degree.	3½ to 3 in.,	,, of turning, opposed to the bi-mastoid diameter of 3 in.
The third degree	3½ to 2 in.,	,, of craniotomy and cephalotripsy.
The fourth degree.	below 2 in.,	,, of Cæsarian section.

If you have the advantage of bringing on labour at seven months, then you may eliminate the Cæsarian section, and slide down the scale of operations, so that craniotomy shall correspond with the fourth degree, turning with the third, and the forceps with the second, whilst the first degree, being reduced to the conditions of natural labour, may require no operation at all.

Scheme of Relation of Operations to Degrees of Pelvic Contraction under Labour at Seven Months.

	Conjugate diameter reduced to	
First degree	4 to 3½ in.,	admits spontaneous labour.
Second degree.	3½ to 3 in.,	,, of forceps.
Third degree	3½ to 2 in.,	,, of turning.
Fourth degree.	below 2 in.,	,, of craniotomy.

Cæsarian section is eliminated.

The range of application of the forceps is, I believe, not great. The head cannot be compressed by it quickly. The proper use of it is to aid that natural process of moulding which always takes place in protracted labour. Now, this is a gradual, even a slow process. The head is seized by the long forceps in the way already described. The handles are firmly grasped with both hands, and especial care is required to extract well backwards in the axis of the brim, so as to make the head revolve round and under the projecting, overhanging promontory as a centre. Here I may pause to show that, in labour with conjugate contraction from rickets, the promontory possesses a like importance at the brim or entry of the pelvis to that which the symphysis pubis possesses at the outlet. The promontory is a turning-point—a centre of revolution of the head, just like the symphysis. The curve round the pubes, which Carus described, has its counterpart in a curve round the promontory. In ordinary labour, with a well-constructed pelvis, the head enters the pelvis, and reaches nearly to the floor, without deviating much from the straight line which represents the axis of the brim. Thus it enters its orbit, the circle of Carus, at once.

FIG. 28.

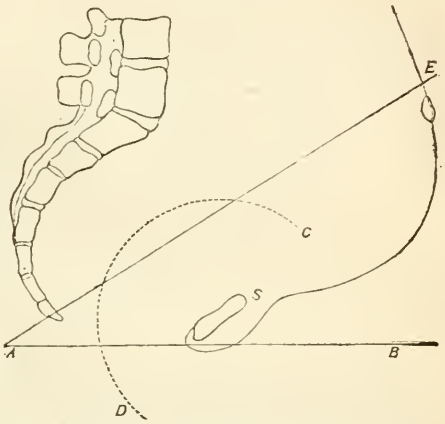


FIG. 28.—Normal pelvis. S, the symphysis pubis, the centre of Carus curve C D; A E, the axis of the brim, forming an acute angle, not less than 30°, with the datum-line A B. The uterus and the child's body nearly corresponding with the axis of the pelvic brim, the head enters its natural orbit, represented by Carus' curve, at once.

But a projecting promontory, involving as it commonly does a scooped-out sacrum below, disturbs this course. The promontory must be doubled. The head must move round this before it can strike into its natural orbit. I propose to call this curve *the curve of the false promontory*.

FIG. 29.

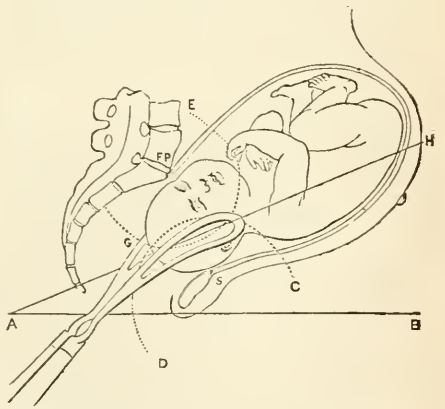


FIG. 29.—Pelvis contracted by rickets to show the curve of the false promontory. S, the symphysis, the centre of Carus' curve C D; F P, the false promontory, the centre of the false curve E G: G, the point of intersection of the two curves where the head passes from the false to the true orbit; A H, the axis of the brim, forming a very acute angle, varying from 30° to 20° or less, with the datum-line A B. The head is thrown over the pubic symphysis by the projecting promontory. The forceps draws backwards in line A H to bring the head under the promontory in the orbit of the false promontory.

Fig. 30.

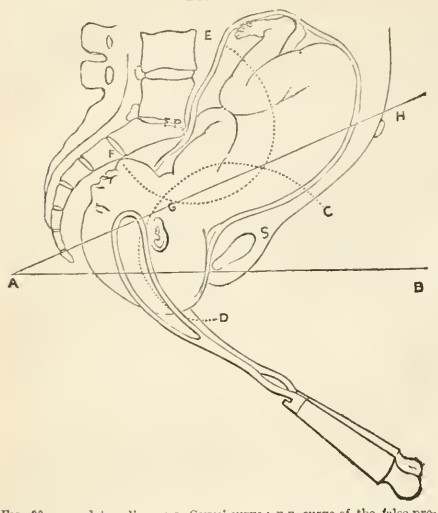


Fig. 30.—A B, datum-line; C D, Carus' curve; E F, curve of the false promontory; C, point of intersection of the two curves where the head passes from the false to the true orbit. The forceps now draws the head in the direction of the outlet in Carus' curve.

This curve is the chart by which to steer in turning on account of contracted pelvis.

Bearing this in mind, and assuming that the head is seized nearly in its transverse diameter, which is very rarely effected, the blade corresponding to the anterior or pubic side of the head must describe a large circle, whilst the sacral side of the head, and the blade in relation with it, moves but little until the promontory is rounded and the head has entered the pelvis. When this point is reached, the direction of traction is that of Carus' curve. The head, which was compelled to traverse the brim nearly in the transverse diameter, will quickly rotate, face to sacrum. This turn, imparted to the handles of the forceps, and sudden transition from resistance to ease—a sort of jerk—mark the completion of the first circuit and the beginning of the second. The rest falls within the laws of natural labour.

It happens, however, in these cases of contracted conjugate diameter, that the head commonly presents at the brim with its long diameter very nearly, if not quite, in correspondence with the transverse diameter of the pelvis. The blades of the forceps, also finding most room in this diameter, will grasp the head in its longitudinal diameter. In extraction, therefore, both blades will move equally around the false promontory.

What is the extreme degree of narrowing that will admit of the useful application of the forceps? I have stated it in the table at $3\frac{1}{4}$ inches, but it cannot be defined absolutely. A head slightly below the normal size, and less firmly ossified than usual, may be brought through a conjugate diameter of only 3 inches. And as we cannot know with sufficient precision what the properties of the head still above the brim are, we are justified in making tentative, experimental, efforts with the forceps before resorting to turning, which is, perhaps, more hazardous to the child, or to craniotomy, which is certainly destructive to it. This uncertainty, or want of fixity, in the relations between the head and the pelvis, compels us to leave a range or border-land of debatable territory between the more clearly recognised or conventional limits assigned to the several operations. This debatable territory is further liable to invasion from either side, according to the relative skill with which the competing operations are carried out. And herein lies the source of the great controversies in obstetric practice. Thus one operator, possessing a good long forceps, and confident in his skill in handling it, will use this instrument with success where the contraction is $3\frac{1}{2}$ inches, whilst another possessing only a single-curved forceps or a bad double-curved one *must* either turn or perforate. So again the region between the second and third degrees of contraction, the region assigned to turning, may be invaded on the one side by the forceps, on the other by the perforator, and become the subject of a partition-treaty, which shall dispossess turning, the rightful power, altogether. It unfortunately happens that perforation, being an easy operation, is apt to carry its inroads further than the forceps; and thus the child falls under a wide, arbitrary, and fatal proscription.

There is a condition causing dystocia called the *pendulous abdomen*. It is most frequent in women who have borne many children, and in whom the abdominal walls are much relaxed. Where this exists, the uterus hanging down in front of the pubes is out of the axis of the brim, and, if it contracts, would only direct the child over the brim, backwards against the promontory. This may sometimes be remedied by putting the patient on her back, and making up for the want of support from the abdominal muscles by applying a broad binder so as to lift the fundus of the uterus upwards and backwards. This will restore the relation between the axis of the uterus and pelvic brim. But if contractile energy be still insufficient, the long forceps will come into use. And this is a case where the dorsal decubitus will much assist the delivery. If the patient continue on her side, the uterus not only hangs forwards, but swags downwards to the dependent side, constituting a further deviation, and increasing the obstacle to parturition.

How to determine the choice between forceps and turning? There are two cases. First, the liquor amnii has drained away, and the head is pressing into the brim: the forceps is strongly indicated here. Secondly, the head is mobile above the brim, and not easy to grasp in the blades: here turning may be preferable. I have several times rescued a living child by turning under these circumstances.

The second case may sometimes be reduced to the first, and thus brought within the more desirable dominion of the forceps. One result of the pendulous abdomen and uterus is to form a kind of reservoir in which the liquor amnii is dammed up. Hence an added impediment to contraction of the uterus. Now, the waters can be drained off by lifting the fundus uteri up to its normal position against the spine, laying the patient on her back, and making a channel past the head to the uterine reservoir by introducing the lever or one blade of the forceps. Having accomplished this, the uterus, under the combined advantages of restoration to its natural axis, and of steady pressure by the hands or a belt, may recover its power, and expel the child. If not, the forceps supplies an easy remedy.

In the following diagrams, the mechanism of labour obstructed by this form of malposition of the uterus is illustrated.

Until the uterus is brought back to its normal position, it is clear that two causes concur to render labour difficult. First, the uterus being thrown forwards, its fundus is carried away from the diaphragm and upper part of the abdominal walls. It loses, therefore, the aid which the expiratory muscles, acting powerfully when the glottis is closed and the chest is fixed, usually give. This expellent power of the expiratory muscles is so great that it appears to be of itself sufficient in some cases to complete labour, the uterus remaining quite passive. When the uterus is thrown forwards across the pubes, any force propagated downwards from the diaphragm will strike the posterior wall of the uterus at a right angle with the body of the uterus and of the long axis of the fœtus. It will, in short, drive the uterus and its contents down upon the symphysis, or even more forwards still, since the body of the child, which lies in front of the symphysis, forms the longer arm of a lever, and the force is expended upon it.

Secondly, the uterus itself, if not paralysed, acts in a wrong direction. It loses the stimulus to action which the normal pressure and support of the diaphragm and abdominal walls supplies, and therefore acts languidly. Its independent power is also weakened by another circumstance. It is a law of which the patient observer will not fail to discover many proofs in the progress of difficult labour, that, whensoever a mechanical obstacle is encountered, before long, the uterus, conscious, as it were, of the futility of its efforts, intermits its action, takes a rest, lies dormant, until the time shall arrive when it can act with advantage. This provision protects for a long time against exhaustion from protracted labour. Indeed, what appears to be protracted labour is often simply suspended labour. And suspended labour may even pass into what Dr. Oldham has so aptly called "missed labour."

Fig. 31.

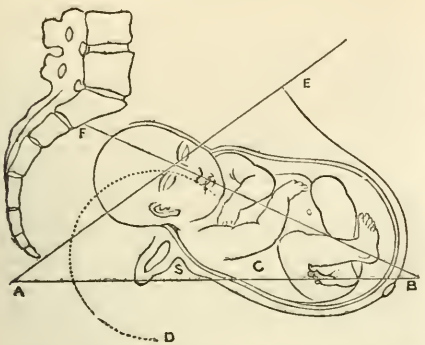


Fig. 31.—A B, datum-line; A E, axis of pelvic brim and normal axis of uterus; F S, axis of uterus pointing to sacrum; C D, Carus' curve.

The remedy is obviously to restore the uterus to its normal position. In Fig. 31, the uterus and child are represented lying across the symphysis pubis, like a sack across a saddle. H I is the line in which the proper uterine force would be exerted; F G is the line of force of the expiratory muscles striking the long axis of the uterus nearly at a right angle. These two forces, which ought to coincide, thus cross each other, and the error is but imperfectly compensated by the resultant force obtained between the two. But raise the uterus to its normal position, as indicated by the dotted outline; and immediately the expiratory force and the uterine force coincide with the axis of the child and of the pelvic brim, and both conspire to expel the contents of the uterus. Not even the forceps will act efficiently until this restoration is made.

Fig. 32.

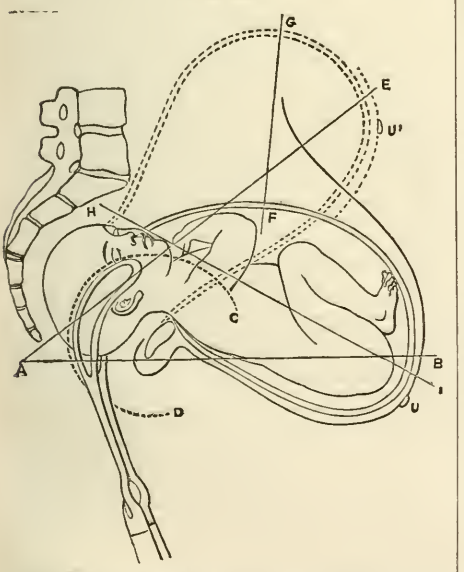


Fig. 32.—Showing the mechanism of labour in pendulous belly. A B, datum-line determining position of the pelvis; C D, Carus' curve; H D, axis of uterus and of child directed towards the promontory; F G, line of force of expiratory muscles cutting the axis of the uterus and of child; A E, normal axis of pelvis; U U', the umbilicus.

ORIGINAL COMMUNICATIONS.

SCURVY IN THE INTERIOR OF AUSTRALIA.

By W. C. PECHEY, M.D., M.R.C.S., L.S.A.

During a residence of three years on the River Darling, in the north-west corner of New South Wales, I have had great opportunities of witnessing cases of scurvy acquired on land, and the result of my experience may be useful, if not to Professional brethren in England, where scurvy is rarely seen in private practice, at least to those who, like myself, are situated in outlandish places, where luxuries are never seen, and the necessaries of life are sometimes wanting, and who are, at times, at their wits' end to know what to do with cases which require nourishing food, a class that will certainly include the greater number of their patients.

The class of people amongst whom the worst cases of scurvy occur are the shepherds, and they form a very large proportion of the scattered population. A glance at the way in which they live will show that they are placed in the most favourable circumstances to become a prey to scurvy or other diseases. Those of the shepherds who are best provided for live in slab huts, but most of them in tents; this is scarcely of consequence where there is so little rain and such a dry atmosphere as this. They are well off when they have the four necessaries of the bush—viz., beef, flour, tea, and sugar; on the back stations they are often without flour, or tea and sugar, or perhaps all three at once, for months together. With flour and water they make a flat lump of dough, which is baked by being covered up for an hour with hot ashes, and is called "damper;" this is the bread in the bush all the year round. The beef during the summer months is salt and often very poor, and this, with bread and a quart of tea to each meal, constitutes breakfast, dinner, and supper all the year round. The weekly allowance per man of these delicacies is flour, 8 lb.; beef, 10 lb.; sugar (coarse black), 2 lb.; tea, ¼ lb. They get from 15s. to £1 a week wages, and might get pickles, jam, or dried apples often from the station store; but most of them prefer to hoard up their wages till they get upwards of £50 (grudging themselves even necessary clothing), and then make off for the nearest public-house, and after a few days of drunken insensibility their cheque is done, and they return to their employment. They live alone, and with the exception of the ration carrier, who sees them once every week or fortnight, and an occasional visit from the overseer, many of them who are stationed back from the tracks do not see a white man for weeks. This they do not mind, however much it may affect their health, for most of the best shepherds on the river are "old hands" who, on account of bygone offences, were recommended to try a voyage to New South Wales, so that their recollections of society are not the most agreeable, and their present relations to the rest of humanity (except perhaps fellow-victims) anything but friendly. In fact, their whole nature is warped and misanthropic, as shown by their inclination to get "out back." These men are in a great measure the pioneers of the working class, for wherever new country is taken up (the further from civilisation and police restraint the better), there they will offer themselves for employment. They have no books in their tents, or perhaps one volume which has been read and reread till it ceases to interest; their days are spent in wandering about, or sitting under a tree at the tail of their flock, apparently with no earthly occupation. To a man of ordinary mental capacity, I should imagine that solitary confinement with hard labour, where you saw at least your gaoler once a day, would be Paradise compared to such an existence.

In spite, however, of this unvaried diet and monotonous life, many are not affected with scurvy for years; for if rain fall occasionally, it brings up numbers of succulent plants, which are nutritious though not very palatable; but it is seldom that rain does fall, and these plants are not often to be obtained.

There is, however, a great difference in the length of time during which individuals can bear up against climate and diet without being affected. Some, suffering badly, have assured me they had only been three months on the river, and that before they had been living in the settled districts where fruit and vegetables are plentiful; others have been on the river six, eight, and in one case fifteen years, without a day's sickness.

The first appearance of scurvy is indicated by a tendency in

all recent wounds to remain open. This may be first seen on the backs of the hands. They get scratched or splintered in making a sheep-yard, and, instead of healing, the scratch goes on slowly and superficially, but continuously ulcerating, with an incrusted, white, scaly surface. If the scaly incrustations are removed by a poultice, they form again directly, till at last they occupy the whole back of the hand; or if the back of the hand be ever so slightly bruised without the skin being broken, a blood blister immediately forms, perfectly round and very much raised, like half a black marble stuck on the skin. If this blister be broken, the resulting sore becomes scaly and refuses to heal, just as if it had originated in a scratch, as in the first instance. Some months, perhaps, elapse before other symptoms declare themselves, and the men themselves take little notice of these, attributing them to supposed poisonous qualities in the wood, and physicking themselves, according to their knowledge, with the bush panacea, Holloway's ointment, or marsh mallow, or cow-dung poultices. Though at this time there may be no complaint, still the face looks sallow and haggard, very different from the dusky, smoked appearance it afterwards presents. The appetite is diminished, and the bowels become confined—driving them to enormous and ever-increasing doses of Holloway's pills. After a variable time the teeth begin to loosen and the gums to swell. They do not swell at first so as to interfere with mastication, and they retain their natural colour; but as the swelling increases they become livid, bleed if touched, and are so spongy and large as almost to fill up the cavity of the mouth; large pedunculated portions often drop off. The patient is harassed with deep-seated pains in the limbs and back, which he attributes to rheumatism; muscular power fails, and languor and depression of spirits, with almost total loss of appetite, supervene. The skin of the face and extremities becomes dusky in colour, and indurations (solid œdema) form in different places, especially in the popliteal space and about the ankles, rendering the legs stiff, either straight or contracted, by the œdema interfering with the tendons of the flexor muscles of the leg. The skin over these indurations assumes a bruised appearance, as if it had received a severe blow, and the course of absorbent vessels in the skin often becomes red; the pains increase; the urine is scanty, and, on the addition of nitric acid, becomes dark red with the urohæmatine it contains; and the bowels are obstinately costive. It is at this stage of the disease that old wounds open and ulcerate, or the scars become dark purple, and congestion and hæmorrhages occur, which finally carry off the patient.

I did not intend, however, to write a treatise on scurvy, though there are several points of importance in which scurvy in this hot dry climate differs from the disease as described in books, where cold and moisture of the atmosphere are generally noticed as having augmented the evil, or even originated it, in previously half-starved men; but to add my testimony to the value of the salts of potash in the treatment of the complaint, and to call attention to the revived, though not novel observation, that scurvy is curable with the salts of potash, not administered as an adjunct to treatment by good diet, fresh vegetables, and alcoholic stimulants, but in the absence of all these—in fact, while merely using the same food which, by its poverty and want of variety, at first originated the disease. During the last three years there has been an almost universal drought in New South Wales. In the height of this, my practice was almost confined to scurvy patients, and as, from the want of grass, teams were unable to travel, the whole of the far interior was short of rations; the small Hospital at Bourbee was filled with scurvy, and the means which I had found previously successful, such as small doses of the salts of potash, quinine, iron, or turpentine, signally failed. The cases in which I had found these means sufficient were slight ones; it was not till the drought had lasted about six months that very severe cases first came under my notice. Any improvement in diet, except the substitution of strong beef tea for the beef itself when the gums were tender, was out of the question—in fact, could not be obtained—and I began to fear I should have a dreadful mortality. I was aware of Dr. Garrod's theory that scurvy is occasioned by the deficiency of potash in the blood, and when I first settled on the river I had hopefully treated every case with small or moderate doses of the salts; but whether the doses were too small or not continued sufficiently long, these drugs signally failed, and I discarded them and took up with tonics—quinine and iron, sulphuric acid and turpentine, with astringents where there was much hæmorrhagic tendency—and this treatment I found certainly beneficial, and equal to the cure of the slighter cases. But the drought continued; the disease increased in severity, and these remedies also failed. Among the few works I had with me was the "Encyclopædia of Practical Medicine," rather historical than authoritative in the present rapid march of Medicine; but it was the only one that mentioned scurvy (except incidentally), under which head I found an account of some one in the same predicament as myself. I have no books with me now; but if I remember rightly, it was either in one of Anson's voyages or in the case of a Medical man in charge of convicts to Botany Bay, who used large doses of nitre dissolved in vinegar, and, in the absence of every other means, succeeded in curing most, if not all of his patients, before they arrived at their destination. I resolved, as a last resort, to try the effect of the salts of potash in large and repeated doses. I began in the Bourbee Hospital with the bicarbonate and nitrate, the former in scruple-and-a-half, the latter in ten-grain doses, every three hours. The result was beyond what I could have hoped, as many of the cases were as bad as they could be. The first effect is usually on the bowels; they act, perhaps, rather too violently, getting rid of large quantities of blackened or green and offensive fæces. This purging is certainly beneficial, if the patient have strength to bear it, for almost simultaneously the appetite improves, and the patient becomes really hungry. In a few days the skin begins to clear, and, in the place of the dull despondent look, hope again animates the face, showing the alteration which has almost suddenly taken place in the blood supplied to the brain; and the bowels, having got rid of the accumulated fæces, resume a more healthy action. I then diminish the dose, and find that improvement goes on uninterruptedly. The complexion becomes clear, and, after the previous duskiness of the face, appears unnaturally fair. The smoky hue leaves the other parts of the body, the legs last; the indurations soften, and admit of movement in joints previously stiff, and the condition of the gums improves. Often, however, after the patient has recovered more than his usual health, those indurations on the popliteal space and ankles and the swelling of the gums have not altogether disappeared, and oblige him to remain in the Hospital when otherwise fit for work. In these cases a few local applications of iodine to the indurations, and a gargle of chlorate of potash with some astringent for the month, speedily bring about a change for the better. After a week or fortnight of this treatment, and as much food as the patient can take, he is thoroughly convalescent; the doses may be still further diminished, and another week or so completes the cure. The worst cases, of course, take longer, and by different complications the treatment may continue from three to four months; but I firmly believe that, if the patient does not die before the potash has time to influence him, and if he have sufficient strength to bear the full doses, notwithstanding the purging, he will not die of scurvy afterwards. I may state, also, that the benefit is continuous. None of those who were admitted with simple uncomplicated scurvy and were treated at once with potash exhibited any of the complications at a later stage, but progressed steadily and rapidly towards recovery. Instead of the large mortality I had expected, I only saw one fatal case, and that was a man brought to the Hospital in the very last extremity, who died two hours after admission of scorbutic congestion of the lungs.

Alcohol, especially beer, greatly facilitates the cure, as I have frequently observed in private patients; but the funds of the Hospital would not admit of the use of this aid, the price of a bottle of beer being 5s., and of spirits 15s. to £1. Tonics, especially iron, vegetable bitters, and mineral acids, greatly assist in recovery; quinine I am not so sure of. Of course I do not assert that this should be the treatment of scurvy *par excellence* (nor, indeed, that it is the treatment at all, unless greatly modified, in places where good living can be obtained, for I am certain that the very sight of fresh vegetables and well cooked food would create an appetite in scurvy patients, unless actually moribund; it is no uncommon thing for those who, having been used to live well, have contracted scurvy from their privations in the bush, to dream, night after night, that they were sitting down to a well furnished table with great gusto), but I can confidently recommend it to those who, like myself, labour under the disadvantage of having constantly to treat diseases in which debility is the most prominent feature without the sheet anchor of all treatment—nourishing food.

There are, I believe, certain points to be attended to in order to insure success. 1. To give the salts in sufficient doses,

equal to, if not larger than, mine. 2. To diminish the dose, or stop the medicine altogether for a time, if the purging caused by it be excessive. 3. The improvement of the general health and the promotion of appetite to its furthest limits should be aimed at by giving tonics, especially iron. 4. Let the patients be kept together; nothing is worse for them than comparative solitude; nothing conduces more to the enjoyment of food than for those who can get up to take their meals together and in the same room with those who cannot leave their beds. No class of patients improved with me more slowly than those who had to be placed in small wards by themselves when the large ward was full, and the presence of those who are advanced in cure has a great effect in raising the hopes and keeping up the spirits of those who are worse off. It you can keep the mind occupied, however trivially, you hasten recovery: if other means are not at hand, put their beds together, and let them play any games which can be obtained for them.

I have no experience of potash as a prophylactic against acurvy, but, from what I have seen of its curative powers, I should deem it well worth a trial. In the merchant service it would be a cheap substitute for good lime-juice, if it were found equally efficacious, and less liable to those adulterations which render most of the lime-juice supplied to the mercantile marine inert as a curative agent. It is a medicine, too, that might be placed with safety in the hands of non-professional men—as captains of ships, explorers, etc.—and, with plain directions, it may be almost as well administered under their supervision as under that of a Physician.

Before I close this paper (which is already too long), I may mention that, among aboriginals who honour me with their patronage, I have never seen a case of scurvy, though, to our ideas, they subsist on the plainest, not to say most disgusting food. Those who are wild make a sort of bread from the ground seeds of different grasses and trees, and their animal food is always cooked at a low temperature, and eaten nearly raw. In addition to these, however, they are acquainted with so many wholesome vegetable substances that they can live where a white man, unless well posted up in their habits, would starve. Salt is their abhorrence; they will not even touch salt meat until they have been long civilised, and then only when compelled by hunger.

Bourbee, Darling River, New South Wales.

CASES OF SO-CALLED CEREBRO-SPINAL TYPHUS.

By JAMES J. TRAYER, M.B.T.C.D.,
Medical Officer of the Bagnalstown Dispensary, etc., etc.

Having met and treated in Hospital a series of seven cases of the so-called cerebro-spinal typhus, I desire to lay before your readers a brief account of their peculiar features, and of their treatment, which, besides the interest attached to its novelty, seems to me deserving of consideration from the successful issue obtained under it in a large proportion of cases which seemed to me absolutely hopeless considered in the light of my previous experience of fever—and this, notwithstanding my more than sixteen years of office as sole Medical attendant to the Hospital of this (a peculiarly fever-stricken) district.

Late in the afternoon of February 20, 1866, A. M., a boy, aged 12, was brought into Hospital, presenting symptoms so peculiar and severe that the nurse sent to request my immediate attendance. I found a poor object in human form, 'tis true, and alive, but more like a putrefying though animated corpse than anything I had yet seen. His whole surface was covered with black purpuric patches, varying in size from ordinary petechiæ to blotches full two inches and a half in diameter. Sunk into a profound stupor, he lay huddled together with head drawn back and spinal column deeply arched, his whole surface so markedly hyperæsthetic that, by piteous though inarticulate cries, he evinced his intolerance of the lightest touch, endeavouring, by covering his face with the bedclothes, to escape even the contact of the cool air. He could not swallow, and was pulseless. It is scarcely necessary to add that he died soon after midnight. Beyond having my attention vividly attracted to the form of fever, which, under the sensation title of "black death," was exciting a good deal of interest, I learned little from this case. It may be well to mention here some particulars of this lad's previous history, and of the house whence he and the two following cases (his sister and brother) came into the Hospital. On February 10, this lad had walked fourteen Irish miles, and getting his clothes soaked with wet had allowed them to dry on him. Returned home on the 11th, complained of headache on the 13th, was decidedly ill on the 14th, and took to bed, and, going from bad to worse, was not brought into Hospital till the appearance of the large black spots alarmed his parents into doing so. The house is a long one-storied thatched cabin facing south-west, clay-floored, without any possible means of thorough ventilation, a grove of trees overhanging each end of it. Though situate on a light gravelly soil with good drainage, and isolated, it has, by common repute, a bad sanitary character.

On March 23, B. M., sister to the last, aged 3 years, came into Hospital, stated to have been two or three days ill. This child's state at once arrested my full attention. She lay with her head drawn back on the pillow so as to direct her face nearly towards the headboard, the sterno-cleido-mastoids standing out like wire ropes hard and tense (showing how tensely the proper extensors must be contracted), the whole back curved into a deep arch. So excessively sensitive was her whole surface that, though stupidly lethargic and regardless of sounds, the slightest movement, the lightest touch elicited pain-expressing cries; skin not so hot nor pulse so fast as is usual in fever; eyes dull and lustreless; face and extremities very congested, of a dull red and purplish colour; no petechiæ. She could swallow, but evidently would rather be allowed to die than asked to perform so distressing an act. I ordered her hair to be cut, and the vertex and nape of neck to be blistered, and with a hopeless prognosis desired the nurse to give her milk as long as she could take it. Some hours subsequently, finding her still alive, I stood and, looking at her in a desponding mood, reasoned thus with myself:—Here is a train of symptoms due to great irritation of the medulla spinalis, if not to inflammation of its substance or membranes. Some cases of epilepsy (one such then was, and is still at this date, October 15, with most satisfactory results under treatment), which seem to depend on irritation of this great nervous centre, are most successfully treated by administering the bromides, whose power of diminishing the natural as well as the diseased sensibility of parts deriving their nerve supply from it, is well known and made use of in the practice of laryngoscopy. Why not give this hopeless case the benefit of an experiment? I at once acted on this happy thought, begotten of an earnest desire to cheat death of a victim all but within his icy grasp. I put her on the use of five-grain doses of the bromide as nearly every six hours as it might be possible to get them down. Within a reasonable time from the commencement of this treatment, the hyperæsthesia began to diminish, the rigid muscles to relax. The disease succumbed, art triumphed, and my little patient left Hospital cured on April 24, and some weeks subsequently I saw her at her home well and running about.

On March 26, T. M., brother of these children, aged 10, came into Hospital. He was stated to have been only two or three days ill. On admission, his condition was strikingly like that of his sister, as above described, with the addition of intense gastric irritability—so intense, that anything swallowed was immediately returned. The first dose of the bromide was so instantly returned that I desisted, and endeavoured, though fruitlessly, to remove this symptom by the means usually successful in such cases, in hopes I might then be able to try the bromide fairly. All failed me, and he went from bad to worse, and sank exhausted on May 8. I now regret extremely that it did not occur to me to exhibit the bromide by the hypodermic plan, as I suppose, from the analogy of other drugs, a dose sufficiently small to admit of this form of exhibition might prove energetic.(a)

On April 22, M. S., a little girl, aged 8, came into Hospital. No exact period of taking ill could be ascertained. Her condition so closely resembled that of B. M., that on coming to her bedside and perceiving the *pose* of her little figure, I at once exclaimed, "Oh! nurse, here is another of those terrible M—— cases." In her case, and in all subsequent ones, I was much struck with a peculiarity of the hyperæsthesia they presented—*i.e.*, that, while it existed to a high degree in the skin, it was still more marked in the rigid muscles, as proved by the difference of cry uttered when one pinched up a fold of the skin singly, and when a portion of contracted muscle was included. I may here mention inci-

(a) It is beyond my comprehension how this poor little sufferer lived so long. I am safe in saying that not a particle of solid food, and scarcely a drop of milk, or any other sustaining diet, was ever retained on his stomach for even a few minutes. For some days before death he showed evident symptoms of effusion within the cranium.

dentally that some weeks previously I had seen a younger sister of this child at home in a most violent fit of epilepsy, the first and, as yet, only one she ever has had, and for which no cause could be traced. In this case I began at once to give the bromide of potassium, and all through a tedious and exhausting fever its use was the main feature of my treatment. I used other means to meet emergencies as they arose, but in its use I persisted, and *pari passu* with the taking of this drug into the system did all the peculiar symptoms yield, and from a state of utter emaciation, which left little on her bones for the worms to regret, did this little girl gradually recover, rescued from the very verge of the grave; and to the use of this drug, I conscientiously believe, do I owe the saving of this young life. This girl had effusion into both knees during the course of the illness. This I treated by free blistering round the joints and poultices of linseed, and both joints recovered perfectly.

On May 29 I got a red ticket to see a lad, P. D., aged 17, ill five days. On reaching his bedside, his drawn-back head and deeply arched spine, his face of deep distress and smile of well-nigh sardonic character, at once revealed the real nature of his case; and notwithstanding the little acceleration of pulse and the slight, if any, exaltation of temperature, I pronounced him to be ill of fever of bad type, and ordered his immediate removal into Hospital. He attributed his illness to exposure to night air, his duties as farm servant obliging him to get up and go out at night to look after a mare expected to foal. His sister had lately died of phthisis; and grief for her loss, and the usual goings-on of an Irish wake, may have had their share in giving origin to his attack. On admission that evening, I found, in addition to the peculiar symptoms of spinal meningitis, that his surface presented several large bluish-black spots. These seemed to me as if commencing to appear, and coming up, as it were, from the deeper tissues to the surface. They were fully the size of a large split bean, oval, well defined, persistent and not affected by pressure; for twenty-four hours they rather deepened in shade, then became for a time stationary. The hyperæsthetic state of skin and the rigidity of muscles were particularly well marked in this case. I at once began the bromide of potassium treatment, and steadily adhered to it as my sheet anchor. Though I blistered, used aperients, and in every way endeavoured to meet any emergency as it arose by appropriate means, still I persisted in the use of the bromide mixture, adding to it occasionally some pure bromine (but this I found much harder to take), and had the gratification of again seeing my hopes realised. The black spots began to fade, the excessive and painful sensibility to subside; and, muscular rigidity relaxing, this poor lad at length began to have ease, and his peculiarly tense expression of countenance gave place to his natural placidity of look. He had rapidly emaciated, and to a degree I seldom have seen equalled where recovery followed, and contracted huge bedsores; but all through the slowness of pulse and lowness of temperature were very remarkable, and of this I had now an opportunity of judging better from the contrast of what is usual in other types of fever; for just as all seemed happily leading to convalescence, and flesh was creeping up on his denuded bones, and his appetite and sleep were returning, he sickened again, but this time of typhoid fever, of which several serious cases were under treatment in his ward. Here, too, was an opportunity for contrasting the different modes of treatment suitable to various forms of fever. I shall only specify the use of stimulants. In his first attack, no matter how urgently his debility seemed to call for alcoholic drinks, their most cautious use was followed so quickly and surely by alarming excitement that they could not be persevered with; while in his second illness, on the contrary, when required, I gave them freely and with marked benefit. I wish, *en passant*, to mention the immense advantage I derived in dressing this lad's bedsores with Dr. Richardson's styptic collodion. At length, on August 20, I discharged him cured, and verily believe he owes his life to the use of the bromide. The gradually wrought effect of this drug seemed in these cases to have so far impressed the nurse that, while she hitherto had in each case followed orders with a faithful obedience, she did so in a faithless spirit of despair; but in the two following cases with hopeful zeal used the "new bottle" in combating the "new fever."

Mrs. T., aged 30, came in on July 16, ill eleven days. Her illness not being considered fever by her friends at first, they had moved her some distance, but, getting alarmed after some time at the turn things took, brought her into Hospital in the following state:—Hyperæsthesia of surface and of the tense extensor muscles of neck and back very marked. The whole surface thickly mottled with dark purple maculæ, some as large as a large split pea, some merely visible specks. She lay with head drawn back on the pillow, and spine deeply arched, in a stupid torpor, with occasional fits of noisy querulous delirium on being asked even to take a drink. I at once put her on the use of the bromide in ten-grain doses, and during three days seemed to be gaining so far as that tense muscles began to relax, the purpuric spots to become brighter, and the intervening skin to be less dingy, and hope to spring up in our minds, when diarrhœa set in, and, on its yielding to appropriate means, suffocative bronchitis replaced it, and, after a hard fight for dear life, she sank on the 31st, drowned in the mucus she was unable to expectorate.(b)

On August 6 I was called to an out-patient in my own district, H. R., aged 22. On reaching the house this girl informed me that she had had a nice sleep, the catamenia had appeared, and that, except for a "crick in her neck," nothing ailed her, and that if I would send her a liniment to rub the neck all would be well. Her pulse was quiet; skin cool, but rather dry. Manner more excited than the catamenial state accounted for; the crick was at both sides, and her smile was exaggerated and quasi-tetanic. I said, "You have fever, and of a very bad form, which is now going, and begins often with a crick; come into Hospital." She would not, nor use anything but a "rub" for her neck, which her father came in for the next morning to the Dispensary.

On the 8th, as I was leaving the Hospital after my morning visit, I met her coming in, now convinced that I was right, and her friends confessing what they before denied, that she was occasionally delirious. She was now quite helpless. The state of hyperæsthesia and muscular tension so often described well-marked. She had no petechiæ, but it struck me forcibly that a few patches of herpes about her mouth had put on a very nasty black gangrenous look. Immediately she was got to bed, I began the use of the bromide of potash in ten-grain doses every three hours. I used this steadily through her illness, except when diarrhœa obliged its cessation for a few hours on two or three occasions, but on the relief of this symptom I always resumed the bromide, and this, with the application of blisters to the vertex and along the spine, constituted (with regulated diet) my treatment of this case, which terminated in a cure. She left Hospital on September 20 hearty and well. In this case, I thought I could detect the bromine in the urine by treating it with sulphuric acid and chloroform. Certainly, in this and one or two other cases, the urine acquired a very peculiar look and smell while the bromide was being used, which gradually disappeared on its discontinuance. I do not know how to describe the smell of these specimens: it resembled nothing I ever before smelt disgusting. The appearance was that of muddy and sour beer.

I am quite conscious of the imperfect reporting of these cases, but trust that sufficient details have been given to justify my diagnosis, and, if this much is conceded, feel sure some interest cannot fail to attach to my treatment on the score at once of its novelty and success. In estimating the latter, it is only fair to leave out of consideration Cases 1 and 3, as in neither of these was the peculiar treatment used. There remain five cases, in which it was fairly and persistently used, and of these five patients four still live, and are returned to their homes and to their employment. This, in a confessedly dangerous form of fever, is encouraging, and, I think, justifies me in asking any who imagine a *post hoc* has been by me mistaken for a *propter* to try the like plan in cases which seem to afford little prospect of success if treated after more established methods. For myself, I confess that, on looking back through the years I have been Medical officer to the Bagnalstown Hospital, I think I see here and there, dotted over the past, cases of this kind, and that, treat them how I would, previous to this year have, in my hands, proved uniformly fatal. This sad confession is relieved by the consciousness that, so far as my then light allowed, I left no stone unturned calculated to save them, and for the future that, whereas I formerly used to dread the coming in of such cases, I expect henceforth to meet them, not in despair, but with hope—not with the craven heart that helps to, and deserves, defeat, but with loins girded for an arduous, but not desperate fight.

If you can spare me room on some subsequent occasion, I should like to give utterance to some thoughts about the use

(b) It was remarkable in this case how badly opium was borne when the diarrhœa called for its use. In typhoid fever on the contrary, I find, used carefully, it is an invaluable remedy. This experience was of use in the next case.

of this drug suggested to my mind by its effects in these cases. (N.B.—The bromide was always simply dissolved in water.)

In conclusion, I wish to obviate misunderstanding by stating that, while speaking of different types or various forms of fever, I by no means look on it as established that these variously visaged fevers are essentially different diseases. It seems to me more agreeable to fact to look on them as individuals, for the convenience of description grouped in classes, a common nature pervading all, and a common cause giving birth to all, while the concomitant circumstances stamp peculiar features which call for and indicate treatment appropriate to each.

CLEAR BLOOD AND RED BLOOD.

By J. MORRIS, M.D. Lond., Fellow of University College.

"Seu stabit iners, seu profluet humor."

Let us for a moment suppose that the question, What are we? which admits of so many different answers, were to be determined by a universal suffrage (the method is in vogue), first, of the chemical elements of which our bodies consist: the answer would be—Oxygen. Again, let us suppose that the result were sought from our proximate chemical constituents: it would be—Water. Once more let us suppose that the inquiry were directed to physiological units: the response would be, I think—Liquor sanguinis. In Medical writings it has appeared to me that this term, and some equivalent phrases, are used in three distinct senses, which it is important not to confound. (*a*) In the original sense of the red blood minus the corpuscles, which is nearly the same as the serum plus the fibrine; this is the liquor sanguinis in the blood-vessels (*b*) The same fluid in the tissues of the body. (*c*) Both the above. I use it here in the third meaning.

From many points of view this liquor sanguinis is the most important unit in the body. One may say so without being an extravagant humoralist. To maintain its normal condition, the whole of the digestive, respiratory, and depuratory apparatus is directly subservient; and, so long as its condition is perfectly normal, we are comparatively free from disease.

It is better to take the liquor sanguinis as a physiological unit than the blood, for the latter is merely that part of the liquor sanguinis which is not at the time performing the function of textural nutrition, but which is being prepared to resume that office by aëration, by contact with the red corpuscles, by purification in the kidneys and other glands, and by receiving new supplies of nutritive matter.

The blood may be said to be liquor sanguinis on furlough; the liquor sanguinis (of the textures) the blood on duty. It is not very many years since it was first shown in how very few seconds any substance (as, for example, the yellow prussiate of potash) thrown into the circulation may appear at a distant part—entering, say, the jugular vein, may appear in the kidney. And it is little more than a year since Dr. Bence Jones showed that a very few minutes suffice for quinine or lithia to appear in every tissue of the body.

In order that these discoveries may bear full fruit, we must extend our notion both of the circulation and of the circulating fluid, and in Medical reasoning we must always keep vividly before the eye of the mind the fact that we have two circulations—first, the Harveian, with its tubes, and valves, and pump; and, second, the osmotic or dialytic circulation, which we have in common with the lowest, the non-vascular, animals and plants.

In discussing cases of emboli, for example, we are only concerned with the Harveian circulation; but in those cases, so much more numerous, in which we have to reflect on what becomes of medicines and poisons, including the blood poisons and fever poisons, when taken into our system, I think we are not likely to attain any very clear conceptions or accurate modes of expression, unless we add to the twenty-six or forty pounds of red blood, of the ordinary figure of eight circulation, the liquor sanguinis of the textures, of which there must be a nearly equal quantity, perhaps more. But since this Latin term is already usually appropriated to a more limited meaning, the "clear blood" seems a better term, though not free from objections, inherent, I believe, in the nature of the case—"clear," because it does not necessarily contain the red corpuscles; and "blood," because it is constantly returning to the Harveian circulation and as constantly leaving it, and it is, in fact, the real nutritive fluid.

Arbitrarily to separate this clear blood from the red blood, and to confine the name blood to the latter, while we continue to speak of "blood poisons" and "blood diseases," in which the poison is active, and the morbid action is situate, to a small extent only, in the red blood, is impossible. It is as if, in regarding the population of a great city, one should take account only of those in its thoroughfares, and omit those in its factories, houses, and places of assembly.

The clear blood extends through the animal kingdom almost as widely as the function of nutrition; the domain of red blood is far more limited.

The clear blond is from day to day tolerably constant in the same individual, varied only by nutrition and excretion. The liquor sanguinis of the red blood is varying almost from minute to minute, by continual interchange of place with the similar fluid which moistens every living texture.

Using the term clear blood to include the clear part of the red blood, together with that in the textures, we have, I think, a more constant fluid, and a better physiological unit.

But the clear blood, though, in one sense, a unit, itself requires to be divided into the nutritive fluid, on the one hand, and the various nuclear, growing, living, or germinal particles, on the other. In the mind, these should be separated from the fluid pabulum as clearly as the early embryo of the chick from the albumen ovi. It is possible that a small part of the nutrition of formed material may go on by mere imbibition from the fluid. But we can explain little even of nutrition in this manner; we must also take note of the nuclear or germinal particles which are so abundant in tissues undergoing rapid growth or repair.

Each of these particles presents a problem of which physics and chemistry do not at present even foreshadow the solution. The force or forces of growth, to take no higher manifestation of life, does not even shown signs of being correlated with the physico-chemical forces, though the nervous wave and the muscular force do so. The laws of physics do not show any instance of such concentration of power in single particles as is shown in the case of germinal matter, whether in disease or in health.

Without this matter, no active nutrition, no considerable growth, healthy or morbid, no extensive repair takes place. The first mental requisite for its study is the admission that we know little about it. We see as yet only that each particle tends to produce its like, and we see also, as I have elsewhere laboured to show, that its growth may be at any time modified by contact with other substances, but, in particular, by contact with other germinal matter.

Wherever the clear blood can go, the smaller of these particles go also. Whole generations of them are born, and feed, and grow, and die within us to build and maintain our frame, like the myriads of polypes which devote their lives to produce some branching symmetrical coral.

If there is one thing more strange than the life that lives around us, it is the life that lives within us, whether it be the life that fixes in the textures or that flows in the blood.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. VI.

Perhaps no department of physiology is more interesting than reflex action. After viewing the spinal cord as subservient to the office of excreting the contents of various cavities in defecation, parturition, etc., we may see and *hear* one of the most wonderful instances of this action in the first chirp of the chick, as it beats its deciduous horny excrescence on the unbroken shell, or in the whine of the pup, or in the lusty cry of the new-born infant. This manifestation of life informs us that the first inhaustion of vital air, stimulating the pulmonary capillaries, rouses a reflex power through the whole respiratory tract of nervous substance, and thus the living body is now constituted a breathing animal.

In no department of pathology is this reflex action more singularly displayed than in the act of coughing. This symptom, like that of delirium or of altered voice, is characteristic of the nature of the vice pervading the pneumogastric tract when this nerve is altered from its normal condition. But

here it may be objected that cough is often absent in diabetes, a disease now generally accepted as a perversion of the action of this nerve. We would reply, however, that the glassy eye, permanent hectic flush, dry cheeks, and skin of a patient suffering from glucosurie are evidences of the disease as much as the "vox cholerica" specialises the Asiatic epidemic. Here the glucose nature of the urine, like the saccharine taste of the expectoration in chronic bronchitis, or the saline brackish flavour of the same in tubercular softening, are severally pathognomonic of each disease. Indeed, "nummular" sputa, so called, is more deceitful in its appearances than the above evidences of taste of these secretions.(a)

But we are reminded, by the clanging chorus of coughs, that we are in a ward set apart for the clinical instruction of thoracic diseases. As one listens to the varieties of this symptom, we may, without a great strain on the imagination, write down a gamut of coughs, and note that there are three major and three minor modes. Amongst the first we have the harsh and suffocative cough of emphysema with cardiac disease; then, secondly, the straining sonorous one of chronic asthma, with bronchitis; and thirdly, the hollow "churchyard" tisick of tuberculosis, with cavernous respiration. The minor ones are met with in the short "hack" (b) of pleuritis or the hard shallow one of pneumonia; and then the hysterical "bark" or stomach cough of the male dyspeptic. We might add to these the stridulous "caw" and the hoarse "croak" of acute and chronic laryngitis, with the metallic ring of a croupy cough. On leaving this ward, our interest was excited about the *physique* of the nurse already alluded to, and on inquiring of the sister, an experienced woman, how she did her duty, we received the brief but pointed answer, "Oh, sir, she is a very willing woman, but she is so short in her breath when actively employed, that she is of very little use in the ward." "Well, then," observed Dr. —— to us, "a thoracic disease may be recognised in the voice as well as in the expression of the face, and in the nature of the respiration. As a practical illustration of this fact," continued the Professor, "I may refer to a man who lately applied here for relief, presenting a dusky face, dilated pupils, protruded globes, elevated shoulders, a barrelled chest, which, when exposed to our view, exhibited a general fulness of the palmar, brachial, and thoracic veins, so that emphysema pulmonum was discernible at a glance. Now those four or five arches which the orbital veins form at the back of the choroid, ere they empty their 'Maelström'-like currents into the cavernous sinuses, become abnormally distended in old cases of cardiac 'emphysema pulmonum,' and thus the protrusion of the eyes forms an unequivocal evidence of the nature of the disease. This opinion was fully confirmed by a careful auscultation of his chest. But he inquiringly said, 'Do you think, sir, I am consumptive?' 'No,' was the reply. 'Well, sir, I have been told so by other Medical gentlemen; but is it not very singular that I can sing as well as ever I could in my life?' 'Not at all singular; you have more wind in your chest than you can get rid of, or want, so that you can afford to spend a little of the surplus in singing,' and shortly afterwards we had an opportunity of hearing him do so, though he was not aware of it. His voice was sonorous and clear, but he could only move it in syllabic singing, as in 'God save the Queen;' if he attempted semiquavers or apogiaturas, or tried to pass quickly in thirds or fifths, his voice faltered, and he broke down. In short, his larynx was acted upon in much the same manner as the bass note of a pibroch is kept going by the accumulated air in the bag pressed out by the arm. The voice of such a patient is no more capable of singing a fluent passage than the growl of the pibroch can execute a jig. The respiration is prolonged considerably above the usual period in such cases, and a person so affected will maintain a conversation in the most loquacious manner, expending three times more words in one breath than a healthy man can do, so that we may paradoxically say he is 'short of breath,' though his lungs have more than he wants. A well-known Surgeon to our Hospital for many years before his death was a sufferer from this form of dyspnœa, and puffed out his long expiratory whiffs as he walked the streets, so that a friend quaintly observed, 'Mr. J—— could not be said to have died of want of breath, for he was always blowing it away.'"

The preceptive mode of interrogating nature under disease is more essential in the study of derangement of the respiratory organs than in any other department of pathology. We can both hear and see the expression of disease without inflicting upon our patient the additional distress of wasting words in talking to us. The *colour* of the face also, though closely allied to special expressions of disease, is nevertheless distinguishable in each. Thus, the inanimate, semi-lethargic cast of features in pneumonia is associated with a *tint* peculiar to the disorder. The facial *blush* of emphysema, with its concomitant expression of a barrelled thorax, differs from the colour of a person whose præcordial region is bulged by exo-cardiac effusion of lymph, etc.

A practised physiognomist soon familiarises himself with these and many other diseases whilst visiting such fields of pathology. The apparently trivial phases of complexion which patients exhibit in health or in convalescence form valuable indices of the temperament or of the progress of the affection. Thus we are warranted by experience in connecting a serrated atate of the teeth in youth with a tendency to nervous or epileptiform attacks, and a strumous taint is manifested in the presence of milk-white spots on their broad but brittle surfaces, whilst dental caries in tuberculosis, instead of beginning here, is seen between them. The clubbed phalanges are well known to our readers as pathognomonic of mild forms of cyanosis. The position of a person just on the turn to convalescence from fever with long-continued delirium is more expressive of the favourable change than any oral description. From lying on the back, the assumed posture—to the side, with knees drawn up, arms bent, like the attitude of the fœtus in utero in the last month, speak to us of profound rest having been obtained and now enjoyed, since the perfect relaxation of the whole frame is secured by this position.

But there is yet another and more novel mode of interrogating nature in thoracic diseases than those now referred to. The effect of drapery or of much glass in a concert hall is well understood in deadening or in sharpening vocal and instrumental music.(c) Let us go to the angle of a room where two stone or brick walls meet, and, with hat in hand, try the experiment of talking or reciting several minutes into the hollow of it; then suddenly shifting the head to the angle, talk there, and instantly you find the voice falls a semitone or more. Repeat the experiment conversely, and the voice will be raised a semitone. Substitute a feather bolster for the hat, and two wooden partitions at right angles for the wall. Talk against the former, and the true *son mat* ensues; shift the mouth to the wooden angle, and the vibrating resonance of the voice is instantly recognised. Let us now take the thorax of a well-formed, healthy man. Use it as a stethoscope, or as a medium for auscultating the voice of the Practitioner. Put your ear outside the right mamma, and desire him to take a deep inspiration and hold his breath, whilst you count twenty or forty audibly. Now shift your head to the cardiac region, and again count; you will perceive a marked alteration in the tone of your voice, just as though you were talking over the surface of a pail of water—viz., no vibration, no resonance. This is the fundamental principle of the science of heautophonics—ἑαυτόν (*self*), φωνή (*voice*). It will be observed that the patient is a passive agent in this investigation, and it will much aid the experiment if he is told that he must follow the reading or counting of the Practitioner, and thus his mind becomes occupied on your exploits. Similar observations to the above were first published by the writer in the *Medical Times*, 1847, and they were followed in 1849 by a paper in the "Revue Medico-Chirurgicale," tome iv., entitled, "Pectoral Undulation or Thoracic Vibration in Health and Disease," by M. Monneret, in which he points out the valuable diagnostic aids many Continental Physicians have derived from the pursuit of the study of heautophonics.

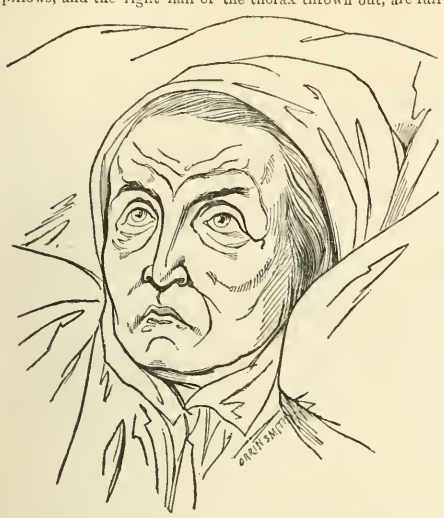
We have already alluded to the positive alterations of *colour* attendant on certain diseases of the heart, stomach, liver, and kidneys, which are beyond the power of the pen to describe, or the photographer to delineate, and can be only feebly portrayed from the artist's palette by an expert hand. The position of this man (H. Halliday), with the left half of the body

(a) The reader is referred to Watson's Lectures, vol. ii., p. 199, in which Sir Thomas has done the writer the justice of having pointed out an error the former had fallen into on viewing "nummular" expectoration.

(b) This sudden and abrupt "hack," without expectoration, denotes an inflamed *costal* pleura, which will terminate in effusion into the cavity. When the *pulmonary* pleura is the seat of inflammation, the diseased action spreads and spends itself over and within the subjacent lung tissue and with the "hack" we have expectoration of a specific nature; empyema is preceded by costal, pleuro-pneumonia by pulmonary pleuritis.

(c) In one of our fashionable West-end public rooms the repetition of side mirrors affords a painful vitreous clang to a musical ear when seated at a certain angle, so that the exquisitely delicate bursts of genius of a Mozart's or of a Mendelssohn's orchestral piece are either lost or not appreciated.

sunk into the bed, the trunk and head raised by several pillows, and the right half of the thorax thrown out, are full



of meaning and of interest. The whole body is tinged with a dirty ochre colour, whilst in the face there is a shade of green pervading it. The acute suffering in the respiration is fully exhibited in the powerful action of the occipito-frontalis, levator palpebræ, and alæ nasi. The agony depicted in the deeply depressd angles of the mouth and upper lip is in striking contrast with the more chronic form of pain in the preceding portrait. Here also we have no puffincss of the face to alienate the true signs of respiratory distress. A jaundiced skin, with pinched features in the lower half of the physiognomy, enable us at once to fix upon the liver as the seat of some acute disease, whilst the upper portion could only be thrown into that exaggerated position by intense thoracic derangement. The latter has been brought on by recent acute emphysema, and materially heightened by pain in the right side, impeding the movements of the diaphragm. This pain was the result of acute peritonitis of the hepatic surface, beneath which were a series of white tubercles. His age was 48. The permanent rigidity of the abdominal parietes, especially of the right rectus muscle, is, according to the best authorities in India and in Europe, symptomatic of deep-seated abscess of the liver. Dr. Budd, however, has noticed it in a case of jaundice from closure of the common duct, and in a case of adhesion of the liver to a cancerous ulcer of the stomach. The symptom was well marked in the present instance; the fine emphysematous crepitation, reaching as low as the eighth rib behind, divested the mind of all suspicion of acute pleuritic disease. The evacuations were clay-like in colour, the urine deeply bilious in character; the characteristic purple-violet was well brought out by Pettenkofer's test for the presence of bile.(d) In a case similar to the above in its general features, there was cancer of the lip. The liver was found soft and pale, the biliary ducts thickened throughout, with a small loose calculus in the gall-bladder. On raising the stomach, a tumour the size of an infant's head was attached to the lower margin of the duodenum, the structure of which proved to be encephaloid cancer; that on the lips partook of the medullary form. The lungs were studded with blackened spots, like so many depôts of carbon, interspersed with a grey-white ground; their lower lobes were strewed with millet seed-like hardened bodies (miliary tubercle).

ST. BARTHOLOMEW'S HOSPITAL.—His Royal Highness the Prince of Wales, accompanied by Count Gleichen and Major Grey, visited and inspected this Hospital on Saturday last.

(d) In testing for bile in urine from patients with malignant disease, one has rarely failed to obtain the true green tinge from NO_5, but in cases of simple hepatic congestion without disease it has not succeeded so often. There is bilivcrdin in the one, and not in the other probably.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 9, 1867.

ARMY MEDICAL DEPARTMENT.
STATISTICAL SANITARY AND MEDICAL REPORTS FOR THE YEAR 1865.

SECOND NOTICE.

THE section devoted to the consideration of the sickness and mortality among soldiers' wives contains much highly interesting matter, and is of an eminently suggestive nature, from both the sanitary and social point of view.

Certain difficulties attended the inquiry into the health of the wives and children of soldiers—for instance, the impossibility of discriminating between the wives of soldiers married "with leave," and of those married "without leave," the former being borne on the strength, and being entitled to certain privileges which are denied to the latter. They all, however, come more or less under the care of the Surgeon, who, in cases of sickness, seldom inquires to which class the women may belong.

Another source of error, particularly in the United Kingdom and in some of the colonies, is the facility with which the women are enabled to obtain Professional advice and attendance at the numerous Hospitals and Dispensaries, so that the same reliance cannot be placed on the accuracy of the returns regarding the wives of soldiers as on those relating to the men, and the "results cannot be accepted as perfectly accurate; yet, if considered as approximations to the truth rather than correctly ascertained facts, they contain much interesting information, and may be rendered available for improving the sanitary condition of the class to which they relate."

The military commands have been grouped together according to similarity of their climates in their influence on health; and the following results are compiled from the tables given in the Report:—

	Soldiers' Wives. Ratio per 1000 living.		Soldiers. Ratio per 1000 living.	
From 1860 till 1864—	Cases.	Deaths.	Cases.	Deaths.
United Kingdom	401	7·35	1003	9·37
Gibraltar and Malta	473	14·37	816	8·35
Canada, Nova Scotia, and Newfoundland	546	7·53	644	9·20
St. Helena and Cape of Good Hope	729	5·90	860	10·46
New Zealand	583	10·38	613	12·03
Bermuda	342	17·79	733	42·10
West Indies	546	12·41	1057	10·33
Mauritius and Ceylon	806	27·84	1016	22·32
India	1177	40·43	1719	28·40

The returns from China and Australia were not available.

The causes of the lower sick-rate of the women than of the men are obvious. Even trivial cases appear in the sick returns of the soldiers; but the women very often do not apply for Medical advice in such cases. And, again, the latter are exempt from venereal diseases.

"The mortality among the women has been higher than

among the men in the Mediterranean, the West Indies, Mauritius and Ceylon, and in India. In the Mediterranean and in India this has been the case in every one of the years included in this Report. At the other two groups of stations the result has not been so uniform; but the smallness of the numbers under observation may perhaps be a cause of irregularity."

In the United Kingdom the mortality of the women has been two per 1000 under that of the men; but there are some doubts as to whether all the deaths among the former are reported.

In India, the excess of mortality of soldiers' wives over that of soldiers is 12·02 per 1000 during the five years, and is found chiefly to have occurred in the miasmatic diseases, the mortality of which among the women was 8·57 per 1000 greater than among the men. Parturition and abortion caused 2·92 deaths per 1000. In all the other stations in which the mortality of women exceeds that of the men, it is found to have been, to a great extent, caused by the same order of disease, as also by diathetic diseases; and "even at home the proportion of cases of diathetic diseases is double what occurs among the men, and there seems reason to fear that the anæmic condition is not unfrequently the result of defective nutrition. General dropsy also contributes its share to the cases and deaths by this class, and is probably to be traced to the same causes."

We are also told that "diseases of nutrition have caused a much larger proportion of cases among the women than among the soldiers—a result, doubtless, of their inability to procure sufficient supplies of good nourishment when recovering from attacks of sickness, while these are provided without limit for the soldier under similar circumstances. The question of invaliding and of sanatoria in hot climates may also probably exercise a considerable influence on this class of diseases."

Such facts surely point to the existence of marked sanitary defects in the circumstances of the wives of our soldiers, and that these should present more conspicuous results in the more unhealthy and trying climates is only what might have been expected. The subject is worthy of the serious attention of Government; although, indeed, judging from past experience in similar matters, it is not improbable that, having been brought to notice merely in official style in a departmental Blue Book, it may not be considered of sufficient importance until pressed upon the attention of the authorities by some private philanthropist, strongly supported by an outcry of public opinion. During the present cholera epidemic in India instances have occurred in which the wives and children of soldiers have been subjected to the most cruel hardships, if the correspondent of the *Delhi Gazette*, quoted in the *Pall-mall Gazette* of the 18th ult., is to be believed. Such statements as that in the month of July the women and children of a British regiment, on account of cholera having broken out among them, were compelled to perform on foot a journey of eight or nine miles out of cantonments, and on arrival at their destination in camp were placed in tents, three families — men, women, and children — in each, demand investigation. To us they appear almost incredible; but if true, the question raised by the *Pall-mall Gazette* as a small part of the inquiry which must be made, whether it is wise to allow married soldiers, with their families, to embark for service in a country where such contingencies periodically occur, should be thoroughly considered. It is surely a matter of great importance to the welfare of our army, and one that bears strongly upon the problem of how to procure and retain the most eligible recruits, that our soldiers should know and feel that the wives of such of them as are permitted to marry should, on accompanying their regiments on foreign service, have at least as good a chance as their husbands of resisting or escaping from the effects of climate.

As one of the means of attaining this object, so far as India is concerned, the lately proposed increase of hill stations to an extent sufficient to afford accommodation to at least one-third of the British troops serving in that country, must occupy a prominent position in any plan which may be decided on. So long, however, as the hill stations in India are used almost exclusively as convalescent depots, as at present, it ought to be an understood thing that the failing health of a soldier's family, even though the man himself be strong and well, should be considered sufficient grounds for sending him and his family to the hills. Such is not the case at present, and we have been assured by Medical officers who have served in India that in such instances the only way in which they could procure the despatch of a delicate woman and her children to the hills was to draw out as strong a case as possible testifying to the bad state of health of the husband, although he at the time may have been as well as any man in the regiment, and some Medical officers have not sufficient elasticity of conscience to admit of their doing so. It also occurs not unfrequently that the Medical officer must decide between the claims of a sick soldier with a tolerably healthy family and a healthy soldier with a sickly family, as to which should be sent home or to the hills, and we need hardly say that, almost as a matter of course and of absolute right, according to the present arrangements of the service, the former is selected, and that the family of the latter must take their chance in the plains. This is not as it should be.

Enthetic diseases among soldiers' wives were extremely rare. It is a remarkable fact that the station in which they most prevailed should have been Malta, where, during five years, there were 13 cases in an average strength of 2151 women, and next to it was India.

Among soldiers the proportion of enthetic diseases at Malta has always been remarkably low, New Zealand, Newfoundland, and Bermuda being the only stations which, during the six years from 1859 till 1864, show a lower rate of admissions from this cause. This result is considered to be mainly attributable to the strict police regulations regarding public women in that island. How far these may have injuriously reacted on the morality of soldiers' wives is a subject for speculation.

ANIMAL VACCINATION.

The practice of animal vaccination appears to be making way on the Continent. Originated in Naples by Troja and Galbiati, it has been largely carried on by M. Negri, and at the present time, in nearly all the vaccinations performed in Naples, the lymph is taken from an animal vaccinifer. At first, it is true, the animals used were vaccinated with lymph from human sources, but during the last twenty-three years that animal vaccination has been carried on by M. Negri a fresh supply of virus has been taken three times from cows labouring under natural cow-pox. From Naples the practice has, during the last few years, been introduced into Lyons, and subsequently into Paris by M. Lanoix, who brought a vaccinated calf from Naples, and in both cities animal vaccination has taken root. In Paris an establishment for animal vaccination was set on foot by Drs. Lanoix and Chambon, and a convert having been made of Dr. Depaul, the Director of Vaccination in France, all the public vaccinations in that city are now made from the calf, and the virus supplied by the Academy is all derived from the same source. A fresh calf is now purchased in the market every week, and a very ample supply is thus kept up. The calves are well fed and cared for, and, when the virus they render is exhausted, sell well to the butcher. It has been incorrectly asserted that the virus now being propagated week after week by MM. Lanoix and Chambon in Paris is not that of true cow-pox, and that its original source in Naples was a retro-vaccination from the human subject; the truth is, that, shortly after M. Lanoix's return, a new source of cow-pox was discovered at Beaugency, and

from that time forward this is the only virus which these gentlemen have propagated. We may mention further that animal vaccination is now also practised in Brussels by Dr. Warlomont; at St. Petersburg, where a government service has been organised by Dr. Bulmerinck; and also at Berlin and in Vienna.

The following is briefly the method of operating, as we saw it performed by Dr. Chambon in Paris. Heifers are selected about the age of four or five months, being in good condition. When about to be vaccinated the animal is tied to the leaf of a strong table of convenient construction, and the leaf is then raised to the horizontal position, the animal then lying on the left side. The right side of the abdomen is shaved with a dry razor, and, the virus being taken up on the point of the lancet, from sixty to seventy punctures are made carefully upon the shaven portion. Means are taken to prevent injury to the pocks which will arise. The pocks are used for the vaccination of children from the fourth to the sixth day; after that day those which are left untouched are employed for the vaccination of a new heifer. M. Negri's method of taking the lymph was to remove the entire pock and to scrape the attached surface; in Paris, however, the base of the pustule is strongly compressed by forceps, which causes rupture and the exudation of an abundance of a thickish fluid with a yellow tinge, which is taken off upon the lancet or into capillary tubes for preservation. The advantages of the adoption of animal vaccination may be referred to three heads.

1. The practice insures a *due activity of the virus*. The reduction that takes place in the activity of vaccine virus after frequent transmission and generation in the human subject is a fact which is altogether indisputable. It is proved by the results of a long experience, and remarkably by the comparative observations made by Bousquet, Steinbrenner, and others, with lymph of few generations from the cow, and lymph that had been carefully transmitted from the original source in the time of Jenner. The leading characters of an active virus are that it is of comparatively slow development when inoculated upon the human subject; that the vesicles are large and full; that the areola is larger and more pronounced, and does not appear so early as is commonly observed with old lymph; and that the fall of the crust is delayed until the twenty-third or twenty-sixth day from inoculation. It is further characterised by a comparatively rare failure to produce a pock, both in primary vaccination and in re-vaccination. Now these and other characters, belonging to virus which has passed through but few human generations from natural cowpox, are possessed equally by the virus derived from vaccinated heifers. The more perfect the result of the inoculation, the more complete may the protection against small-pox be believed to be. There is no reason whatever for supposing that the vaccine disease, in becoming, so to speak, humanised by frequent human generation, acquires any additional power as a prophylactic against human small-pox. Whatever evidence there is on this subject points to the opposite conclusion. From time to time, since the discovery of Jenner, new sources of lymph from natural cow-pox have been opened up. The disease is by no means so rare but that such a renewal might be effected annually if a proper service were organised by the Government for this purpose; but, as such matters are managed now, a new source of lymph in this country only benefits a small number of local Practitioners. The activity of vaccine virus, too, does not deteriorate very rapidly by human transmission, so that a new supply from a natural source would remain very active for some few years of human generation. Viewed in this light, the adoption of animal vaccination appears calculated to supplement a deficiency in our opportunities of renewing our supply from the cow; it does not seem to stand necessarily in opposition to the convenient practice of arm-to-arm vaccination. This, however, is not the idea entertained by those who are occupied in promoting the practice of animal vaccination on the Continent. Their object is to supplant entirely arm-to-arm vaccination by vaccination from the heifer. And the reason is, that—

2. Animal vaccination *obviates the possibility of imparting any other disease* with the vaccine, and particularly *syphilis*. We think it is sufficiently established that occasionally, in arm-to-arm vaccination, such a catastrophe has occurred. There is sufficient evidence that it has occurred in Italy, France, and Germany; we are equally satisfied that no proof has yet been offered that a syphilitic child has ever contaminated another with syphilis when serving as a vaccinifer in this country. It is not a necessary result of taking lymph from a syphilitic vaccinifer; it is only conditional on the neglect of a few very simple precautions; and the reason why syphilis has not been known to have been thus communicated in England is, that the more important of these precautions are habitually taken by British Practitioners. Some Continental Physicians, however, in whose experience syphilis has been thus transmitted, naturally feel more strongly upon this subject than we do, and we cannot, therefore, be surprised that the chief argument they put forward for animal vaccination is that which we are now considering. Still, there are public prejudices and alarms to be met even in this country, and we have reason to know that the dread of syphilis in the mind of some parents overpowers the dread of small-pox. However unreasonable this may be, the introduction of animal vaccination here might on this ground also be advocated as promotive of the universality of infant vaccination.

3. The practice of animal vaccination, which can be carried on to any extent, is calculated to *insure a supply at all times of an abundance of energetic virus*. A single heifer with sixty or seventy pocks will serve during two or three days for the vaccination of as many children as could well be vaccinated from it within that period. The quantity of lymph it will furnish is really enormous, and every human pock generated from it is, under favourable circumstances, fitted on the eighth day for further transmission from arm to arm of a satisfactory vaccine. There are circumstances, as when an outbreak of small-pox occurs, under which so certain a source of supply would be most advantageous. We all recollect occasions when a demand for lymph has arisen which it was scarcely possible to meet without having recourse to the results of secondary vaccination, so great has been the rush which an alarm of small-pox occasioned for both primary and secondary vaccination. On all sides Practitioners were begging for lymph, and obliged to defer operations for lack of it. Any such want of correspondence between demand and supply is obviated wherever animal vaccination is practised, the necessity for transmitting and using preserved lymph being overcome by sending a vaccinated calf wherever a local demand of sufficient extent chances to arise. In conclusion, we may say that we think that a fair case has been made out in favour of animal vaccination, not as a substitute for our custom of arm-to-arm vaccination, but as a supplementary source of pure and energetic virus.

THE WEEK.

TOPICS OF THE DAY.

The Metropolitan Poor-law Medical Officers' Association appear, from the report just published, to be working vigorously and unanimously. We believe that Medical men are at length beginning to realise the truth of the proverb that "union is strength." The veteran Poor-law Medical reformer, Mr. Griffin, of Weymouth, has shown how much may be done by a single-hearted resolute man who devotes all his energies to obtain from an indifferent public redress for the wrongs of an unrepresented class. But Mr. Griffin always fought the battle at disadvantage. He was alone, and the odds were against him. The Association, if it continue its united efforts, considering the improved temper of the times and the aroused sensibility for the sick pauper, ought

to have a tenfold success. They have already inaugurated a minor but a very real reform. They have memorialised the Poor-law Board against the practice of certifying pauper lunatics before a magistrate in a police-court, and their remonstrance has obtained the hearty support of the Commissioners in Lunacy. They propose, in place of the present unseemly custom, that the pauper lunatic should be visited by the magistrate or by a clergyman at the workhouse or at his residence. Their next endeavour is to obtain permanency of appointment for the Medical officers of parishes as well as for the Medical officers of unions. That any difference in this respect should have been permitted by the Poor-law Board is a circumstance which must appear to the unofficial mind inexplicable. But, as the anomaly has been allowed, we are not surprised that guardians have eagerly availed themselves of the power given them. Thus, the guardians of St. Pancras parish have recently dismissed their senior resident officer, Mr. Bennet, and the latter has appealed in vain to the Poor-law Board. On the other hand, Dr. Rogers, the President of the Association and Medical officer of the Strand Union, can appeal from the guardians to the Poor-law Board or to the public with perfect impunity, for he can only be ousted by death, resignation, or the order of the central authority. There can be no doubt that permanency of appointment is necessary to the independent performance of duty by the Medical officer, and a safeguard against neglect of duty must be found in the power of dismissal vested in the Government Board. The Select Committee of the House of Commons, in 1855, recommended that the appointment of every Medical officer should be permanent—a recommendation which was set at nought by the limitation of the general order to unions. Another and a very important object of the Association is to obtain an improvement and revision, upon an equitable basis, of the salaries of the Metropolitan Poor-law Medical officers. How absolutely insufficient and egregiously unequal these stipends are, we showed last week ; and now that the salaries are to be paid in part out of the common Poor Fund raised by the whole of the metropolis, and in part by the Government, it is only fair that they should be fixed by a central authority according to an equitable scale, and no longer doled out according to the degree of niggardliness by which a local board may be actuated.

The foul fiend may be painted too black, and we are glad to believe that things even at the Farnham Workhouse might have been worse; at any rate, the public will now get an impartial report on the matter. We believe there is much truth in Mr. Sclater Booth's observation that many of the evils existing in Workhouses depend on the fact that "Workhouses were built originally for the reception of the able-bodied poor, and have been changed by circumstances into Hospitals for the sick, aged, and infirm." The inquiry in the Farnham case instituted by the Poor-law Board is to be conducted by Mr. Lambert, Poor-law Inspector, with whom will be associated Dr. Edward Smith, the Medical officer of the Board, and it will commence on the 13th instant.

Parliament is to meet on November 19. Abyssinia is the cause, but we suppose that the proceedings will not be absolutely limited to voting money for the subjugation of King Theodore. We do not, however, anticipate much legislation on social matters, although Ireland and the recent Fenian and other disturbances may be the themes of some discussion.

Tuesday night at the Pathological was signalised by a passage of arms on the question of the connexion between cirrhosis of the lung and tubercle. Dr. Charlton Bastian brought forward a case which he considered one of pulmonary cirrhosis, pure and simple, and in this view he was supported by Dr. Sibson. Drs. Wilson Fox, Moxon, and others, however, believed that the cirrhosed condition is always associated with tubercle, or with a substance undistinguishable from it, and so the matter rests. Mr. Spencer Wells exhibited a large fatty tumour, removed, we believe, from the peritoneal cavity of a lady 40 years of age. The mass, composed of numerous lobes, some of which were perfectly isolated tumours enclosed in a vascular envelope, weighed twenty pounds avoirdupois. The operation—probably unique in Surgery—lasted one hour and a quarter. At the time of writing this, the patient is living, but the symptoms, unfortunately, are untoward. In this case, the bichloride of methylene (chloromethyl) was administered by Dr. Richardson for the production of the anæsthesia. From ten to twelve drachms of the fluid were required during the whole time, in the proportion of forty-five minims every five minutes.

On Wednesday chloromethyl was administered by Dr. Junker while Mr. Wells performed the operation of ovariotomy on a woman of middle age. Dr. Junker on this occasion employed a new and very simple apparatus for inhaling the light bichloride, the vapour being driven by a small bellows into a face-mask. The apparatus, which differs from the spray inhaler used by Dr. Richardson, will be fully described in a future number. In this case the inhaler answered admirably, and the anæsthesia, which was complete in four minutes, left nothing to be desired. Four fluid drachms of the chloromethyl were only required during the operation, which lasted twenty minutes.

A new society, the South London Medical, is about to be started. Its local habitation is to be the Surrey Ophthalmic Hospital, St. George's-circus.

A fatal case of poisoning by essence of myrbane, or nitrobenzole, has recently been investigated. This substance, which is obtained in the manufacture of the coal-tar colours, has the odour, but not the taste, of bitter almonds. It is a narcotic poison. Three deaths, at least, have occurred from it. One was that of a tradesman's wife lately living in the Kingsland-road, who drank it instead of brandy. A second was that of a young man employed in a chemical factory, who accidentally swallowed some of the poison while sucking a siphon to make it run. The third case was that of a man who spilled a quantity of myrbane over his clothes. In order to dry them, he lay down in front of a fire, and is said to have died from inhaling the poisonous vapour. Myrbane is used by cheap pastrycooks instead of bitter almonds, but it has a hot, pungent taste, quite different from that of the bitter almond.

The new Gresham Professor of Medicine, Dr. E. Symes Thompson, commenced his course on Wednesday. In his introductory address, he sketched the plan which he intends to pursue. Very wisely, we think, he purposes to embody in his lectures a course of instruction in the principles of hygiene and sanitary science. A course on Medicine to a mixed audience is certainly not an unmixed good; but a course on those means of obtaining and keeping health which are within the reach of the people themselves, delivered annually in the City of London, ought to be a great public benefit.

We hear that there is a proposition before the Council of the Royal Benevolent College to erect a marble bust of the late Mr. Propert in the College. Mr. Propert's best monument is undoubtedly the College itself; but all will be glad that future generations who are to be benefited by his enterprise and benevolent exertions should be familiar with the features of the kind-hearted man who worked so hard and so well for them.

SUPPRESSION OF SCARLET FEVER.

London is threatened with another autumnal epidemic of scarlet fever. It is well, then, that the aid afforded by the Sanitary Act of 1866 should be known to the public, and be put in force by the local authorities. Under former Acts, such as the Nuisances Removal Act, sect. 13, the magistrates had power to order the cleansing and disinfection of *houses*, and the emptying of infected houses of their inhabitants, and keeping them closed till rendered fit for habitation. But the Sanitary Act 1866 confers powers still more valuable. It

provides for the disinfection of clothes and bedding, which are quite as efficacious as houses for the retention of infection. It authorises local authorities to provide a place and apparatus for gratuitous disinfection of the clothes and bedding of the parishioners. It authorises the removal of sick persons from houses where they are without proper accommodation; it imposes penalties on persons who remove or expose infected clothes, and on houseowners who let infected rooms to new tenants without proper cleansing. Powers such as these, exercised with energy, ought to suppress, or at least to check, the epidemic which hangs over us. It would be interesting to know the number of local authorities who have put the Sanitary Act into operation during the last year.

THE YELLOW FEVER AT SOUTHAMPTON.

An order was received late on Wednesday evening to release the passengers and all on board the *Parana* from quarantine on Thursday at noon, provided no new cases occurred since the visit of the Medical Superintendent of Quarantine on Wednesday. The *Atrato*, *Æolus*, and *Menelaus* are still to remain in quarantine for some days. All the sick are doing well.

MILK AND CREAM.

Whilst the newspapers are full of complaints about the extortionate price of meat, we wonder that nothing is said about milk. As for meat, there is something open and respectable in the conduct of the butchers. They give it of first-rate quality; of just weight (if they are looked after); and as for price, they charge what they please, and if the customer does not like it he is at least not in the dark about it. But with milk the case is different. Even though the measure be good, the weight and quality are seriously defective; for the mode of ascertaining these, though not really difficult, yet requires one moment's more thought and trouble than the use of the common scales and avoirdupois weights which suffice for meat.

Yet milk is a large and constant item in family expenditure, and it is, of all household items, the most important for the health of children. At present, the milk supplied to many families is a mere sham, a hungry phantom. Take the children in any girls' school, and those in a great many middle-class families, and you find them during all the forenoon chilly, cross, and unapt to learn, because of thin and innutritious breakfasts—to wit, a little queer butter scraped on stale insipid bread, and washed down with a cupful or two of hot water, coloured with tea and brown sugar, and just rendered opalescent by "milk." "Have the children plenty of milk with their breakfast?" asks the Doctor, and he may be answered "Yes;" but even if the quantity be nominally enough, the quality is such as to reduce its value by at least one half.

We have before us the result of many examinations by a Medical Officer of Health of the milk sold in an important London parish, as a sample of which we will take a series of twenty-eight examined last April. And first with regard to measure, the quantity sold for half a pint fluctuated between seven and twelve fluid ounces. The price charged was at the rate of 5d. per quart in six instances, and 4d. in twenty-two others. Considering that the cattle owners were compensated for their losses by cattle plague, and that many milk dealers raised the price of milk from 4d. to 5d., it is a great shame that they should not deliver the milk pure. To be pure, the milk should have its whole quantity of cream, and not be diluted with water. In only three of the above twenty-eight specimens was the amount of cream normal; in fact, it may be laid down as an axiom that *all* milk is a little skimmed, and that, if not watered besides, it passes for very good. The specific gravity of the above twenty-eight samples varied from 1022 to 1037—too great a difference to be natural. The finest cream, called "double," sells in London at 4s. to 6s. per quart; its specific gravity, weighed in a bottle at 50°, is 1008. Single cream, at about 2s. 6d., has a specific gravity of about 1020, and corresponds with equal parts of "double cream" at 1008, and of skim milk at 1034. Ordinary good milk has an average specific gravity 1030, and corresponds with a mixture of about 15 per cent. of single cream and 85 of skim milk. But milk as commonly sold has only about 5 per cent. of "single" cream. After all, the palate and the eye are enough to tell good milk from bad. There is a full, rich, round sweetness about the genuine, and a cold thinness about the diluted milk; and such a difference in colour and in power of adhering to the sides of a glass in which it is stirred that no one need be deceived. Yet the public are deceived, and robbed, through their own laziness. It is true that there are "local authorities"—that is, vestries and boards of guardians—to which the public ought to look for protection; but it would be interesting to reckon up how many milk dealers there are in the London vestries.

That the temptation to fraud is great there is no doubt. If a dealer can make a fair profit by selling genuine milk at the current price, of course he doubles his profit by robbing the milk of its most valuable element and by substituting 10 to 30 per cent. of water.

We have associations of all kinds for checking disease and crime. Would that Medical men would club together in one effort to suppress this miserable crime of adulterating milk, and to protect poor children from the fraud that robs them of the most valuable part of their diet! There are two establishments which have started with the promise of better things—viz., the Reform Dairy, in Orchard-street, and the Aylesbury-road Dairy, in Hereford-road, Bayswater. The latter is under the management of a gentleman favourably known to many members of our Profession, and offers to have any of its milk analysed at its own expense by Dr. Voelcker. We commend these establishments to our Medical readers, because, if they do what they profess, they will afford the greatest boon to young and delicate children. Give good creamy milk to children this winter, and they will not want cod-liver oil the next.

MALARIAL FUNGI.

The share borne by the spores of fungi in the etiology of certain diseases, both internal and external, as well as the suspicion commencing to attach to them as being at least the vehicle by means of which that protean poison, malaria, gains entrance into the human frame, have lately been the subject of numerous observations. We may remind our readers that Dr. Salisbury drew attention to this subject in the *American Medical Journal* for July and October, 1862, in which he states that a disease analogous to measles, and known in the American army as "camp measles," can be traced to the influence of a certain form of fungus on the wheat-straw used as bedding by the American soldiers. Dr. Henry Kennedy, in the *Dublin Quarterly Journal of Medical Science* for February, 1863, relates a case in which a disease in all respects resembling measles was produced in a young lad who had had some fusty linseed meal thrown in his face, entering his eyes, nostrils, and mouth; and Mr. Spencer Wells also called attention to the same subject in an interesting communication published in this journal some time ago. Still more recently, during the late epidemic of malarious fever in the Mauritius, the presence of fungoid spores, identical with crypto gams found in the stagnant pools of Grand River and of *Petite Rivière*, throughout all the mucous surfaces and in most of the secretions of persons labouring under the disease, has been remarked upon by Dr. Henry Schmidt, of the Grand River Depôt Hospital, Mauritius; but whether they are the cause of the disease, as considered by Dr. Schmidt, or merely symptomatic of a depressed state of the vital powers, rendering the mucous surfaces more suitable to their reception and nourishment, is a question which calls for thorough investigation.

Another idea suggests itself, that, if not the actual cause of malarious diseases, they may perform the very important part of vehicles for the conveyance of the morbific agent into the system. The importance of attaining full information on this point is at once obvious in connexion with the problem of the prevention of disease, and its treatment by sulphurous acid and the sulphites, which, according to Dr. Schmidt, has lately been found very successful in the Mauritius, the experiment of so treating the disease having been suggested to him by Surgeon-Major Reid. It is well known that cryptogamic spores retain their vitality even when in an extremely desiccated state. In this condition they are wafted by the winds from their native fens and marshes, and with the air we breathe can enter our systems, there to undergo a process of development modified by the nature of the nutrition afforded them. They have themselves a remarkable tendency to a retrograde transition from the higher to the lower form of existence, and particularly affect those organisms, either living or dead, in which a similar tendency exists. A healthily acting well-toned frame has no affinity for them, and can successfully resist their advances, but it is far otherwise when the system is below par. They then effect a lodgment, and, besides going through their own process of development, they may introduce with them the more subtle and intangible germs of zymotic disease.

In "Notes on the Prevalence of Fungi at Jaffna during the Dry Season of 1866," by Staff Assistant-Surgeon Hugh D. Massy, in the last published volume of Reports of the Army Medical Department, we find much interesting information. Mr. Massy appears to be a zealous and painstaking observer, and he tells us that he has found that increased prevalence and intensity of intermittent fever coincided in point of time with experiments by which he had ascertained by microscopic observation the presence of aerial spores of mucor in unusual quantities during the dry season. He has detected similar organisms in almost all the specimens of the drinking water of the island which he has examined. He has also found them in the pus crusts and hairs taken from a form of ringworm known as *frambœsia*, and which selects as its site the neighbourhood of the anus, causing there a raised ulcerated surface, and associated with patches of *tinea circinnata* on various parts of the body. These ulcers near the anus are especially common among the poor badly nourished native children, and it is supposed that the spores may have been swallowed in the food or drink, and, escaping undigested from the rectum, lodge in the rugæ of the anal region, and, there becoming developed, may be disseminated, occasioning tinea in cases where they are favoured by the depressed vitality and uncleanly habits of the patient. It is worthy of remark that hitherto it had been the custom to treat this affection by the internal administration of iodide of mercury, but that, since it has been recognised as a form of tinea, the treatment has consisted in applying to the affected parts the vapour of sulphurous acid, obtained by burning a little sulphur in a cocoanut-shell, and letting the patient sit over it.

Mr. Massy states that he has detected fungus residue, torula spores, mycelia, and active vibriones in the urine of patients suffering from malarious fever—even, in some instances, to such an extent as to form inspissated masses, so that the eye of the catheter might be clogged by little fungous pellets. In one case they formed the nucleus of a small calculus. He has also found them in the perspiration, in the fæces, and on the mucous membrane of the mouth and tongue in the cases of sore tongue endemic in Ceylon.

He concludes his observations by a note, saying that "they had been brought to an abrupt conclusion by an outbreak of epidemic cholera, and it seemed probable that the widely diffused fungous elements were a cause of the spread of the disease by *conveying* the poison, while appropriating to their own nutrition the products of organic decomposition which contained it."

Mr. Massy's observations are very suggestive, and, if verified by other investigators, will be of the utmost importance; but we confess that some of them appear to us to require the strictest investigation.

MARRIED SOLDIERS.

Apropos of our observations in another page on the sickness and mortality of soldiers' wives as reported on in the Army Medical Department Bluebook for 1865, it gives us much pleasure to be able to lay before our readers a few particulars which have come to our knowledge of an instance in which most praiseworthy efforts have lately been made by the officers of the Royal Engineers at Chatham to provide suitable accommodation for the married soldiers and families of their corps. Two large houses close to the barracks have been hired by the officers, and, having been partially furnished and supplied with water and gas, are now occupied by nearly thirty families at rents varying from 2s. to 2s. 10d. per week. The accommodation is said to be much superior to any that can be obtained in other parts of the town for double the money, and the practical benevolence of the officers is highly appreciated by those in whose behalf it has been exerted. We presume that such provision is only required for men "married without leave," others being quartered in barracks. Government can hardly be expected to provide free quarters for those who have married in excess of the regulations, and we suspect that even the officers of the Royal Engineers may find it necessary to fix a limit. We have no doubt that the results of their well-directed efforts will be a marked improvement in the sanitary state of the soldiers' families, and that the service itself will gain increased popularity from the good feeling which must be established thereby between the officers and men. We wish every success to the system, and trust that it may find imitators in other corps. If properly managed, it ought to be self-supporting.

FROM ABROAD.—THE NEW LABORATORY AT THE SORBONNE—MEDICAL EDUCATION IN AMERICA—GANGRENE IN TYPHOID FEVER.

In a few days will be opened at the Sorbonne perhaps the most magnificent, or at all events the most complete, laboratory in existence, and this to be at the free disposition of young men who give satisfactory proofs of their desire and aptitude for scientific work. Originally suggested, we believe, by an appeal made by Professor Fremy to the Government to hold out more encouragement to men desirous of embarking on scientific careers but unable to meet the present serious expenses, this work has been taken in hand, with his usual enlightened vigour, by M. Duruy, the present Minister of Public Instruction, himself formerly a Professor. The whole arrangements have been placed in the hands of Professor Jamin, of the Faculty of Science. No fees will be required of pupils, but the candidates for admission to the advantages of the laboratory will be obliged to satisfy the Director of their acquirements and capacities, the decision as to their admission and position in the institution being left entirely in his hands. The laboratory consists of a vast central rectangular hall, communicating conveniently with the various *annexes* devoted to special destinations. On one side is an *atelier* or workshop, furnished with every description of instrument and tool of the most improved construction that may be required, and connected with which are apparatus for forcing air into the various forges. Adjoining this is the chemical laboratory (quite independent of the great laboratory already belonging to the Sorbonne), and especially provided with the means of pursuing physical researches. On the other side of the central hall is the motor power derived from M. Hugon's gas-machine, of two-horse power, the action of which is transmitted to the various apparatus, and especially the pumps employed for forcing or for creating a vacuum. In the same manner is set in motion a magneto-electric machine furnishing at will electric

currents or light. In another department are arranged for immediate use the various "*appareils de précision*" most frequently required, as scales, spherometers, dividing-machines, chronometers, etc. In the upper story is placed the library and reading-room, where the pupils may consult the scientific works and periodicals bearing on their investigations; and a room above this may be truly called the "*chambre noire*," as its walls are painted black, so that during delicate optical experiments the operator, when all the apertures have been closed, may be placed in absolute darkness. In the great central hall, already mentioned, are disposed tables where the pupils will occupy themselves at their various labours, having at their disposal, besides the numerous physical apparatus, reservoirs which, merely by turning the corresponding cocks, will furnish them with oxygen or illuminating gas, and the means of procuring a vacuum or exerting a determinate pressure.

The heads of the Profession in the United States are showing themselves no less alive to the desirableness of improving the condition of Medical education than those of our own country. Of course, their task is a more difficult one, owing to the still greater rivalry among teaching bodies that prevails there than with ourselves. At all events, a very vigorous effort is being made, which will be attended with much good effect. An influential meeting of delegates from the various Medical Colleges was recently held at Cincinnati, and a series of resolutions adopted which are of very hopeful import, and have been warmly welcomed by the Medical press. In these, the vital importance of a good primary education before matriculation is insisted upon: this to embrace "the first series of mathematics, the elements of natural science, and a sufficient knowledge of Latin and Greek to understand the technical terms of the Profession." The Medical student is to be required to occupy four years in the study of his Profession, in place of the three at present received, the minimum duration of a course of study being six months. The various branches of Medical study are to be taught by not less than nine Professors in each College. This will seem a reasonable provision; and we may remember how short a time such has prevailed amongst ourselves. In our own time, at St. Bartholomew's, one of the three or four teachers undertook the subjects of chemistry, Materia Medica, and the principles and practice of Medicine, discoursing on two of these in two successive dreary hours! The pupils are to be divided into three classes—of freshmen, junior series, and senior series—and the subjects of study distributed accordingly, an annual examination of each student on the studies of the previous year taking place. A final suggestion that some means of ascertaining the amount of actual attendance on the lectures should be adopted, it is believed, will be accomplished with difficulty, owing to the resistance which the students will probably offer to its enforcement. And truly the results of the attempts which have been made in this country at this compulsory attendance have not been very satisfactory. The true plan to go upon is the appointment of able and zealous Professors, capable as well as willing to teach, and the institution of efficient and practical examinations. The Committee has circulated the resolutions throughout the Medical Colleges of the country, and great hopes are entertained of efficient co-operation.

M. Vigla related a case at the Paris Hospital Medical Society, the like of which he had not met with before in his practice. A man, 23 years of age, had reached the eighteenth or twentieth day of a typhoid fever of the nervous form, in which all serious symptoms had disappeared, so that there seemed to be every prospect of the disease pursuing its course to a favourable issue. All of a sudden the glans penis and prepuce became œdematous, and soon passed into a state of gangrene, the consequence of which was a mutilation, comprising the two anterior thirds of the urethra. Beyond a very slight eschar at the region of the sacrum, following a pustule of the skin covering this bone, in no other part of the body was there the slightest trace of a disposition to gangrene. M. Peter inquired whether this gangrene might not be referred to some obliteration of vessels, which is not of rare occurrence in typhoid fever. Might there not have been thrombosis of the veins of the corpus cavernosum, or an arterial obliteration? M. Vigla observed that his object was rather to relate a curious case than to furnish an explanation of its occurrence. This gangrene was not preceded by any erysipelas, and the supposition of vascular obliteration is favoured by the fact that œdema was the initial phenomenon. M. Hérard remarked that this case should be regarded as analogous to the cases of gangrene of the extremities supervening on typhoid fever, communicated to the Society some years ago by M. Bourgeois. M. Laïller believes that spontaneous gangrene consecutive to typhoid fever is of less rare occurrence than is generally believed. He has himself met with the case of a young girl in whom necrosis of the upper jaw occurred during convalescence, without there being any signs of gangrene at any other point. M. Gueneau de Mussy has twice met with gangrene of the vagina, and also a case of gangrene of the anterior wall of the abdomen. M. Dumontpallier, in charge of the Foundling Hospital, has met, within three weeks, three cases of gangrene following measles, affecting the vagina in two of the cases, and the mouth in the third.

NOTES ON MEDICAL EDUCATION.

THE SYSTEMS OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. V.

The Curriculum of Medical Studies prescribed by the Faculty of Medicine of Paris compared with that most commonly followed in this Country.

It might be anticipated that with an authoritative and centralised system of Medical education we should find associated a comprehensive and well-defined curriculum, and in the case of the Medical School of Paris our anticipations would be realised by the facts.

The students of this School of Medicine possess the advantage of having a clearly outlined course of studies laid down for them, which they are compelled by authority to follow. We say that there *is* an *advantage* to the student—a very decided advantage—in this arrangement, and we do not agree with those who would leave the Medical student unfettered and at liberty to follow almost any course of study he pleases, according as it may suit his inclination, convenience, or interests.

The young, untrained, unformed mind (and now-a-days most minds come to the study of Medicine in this condition, the students of the present day being much younger than they were ten years ago) needs careful guidance, strict rule, and constant discipline, and the more and the better guidance and direction it gets, the more quickly will it mature and be capable of directing itself as the time approaches when that guidance must of necessity be withdrawn.

It may be true that a few erratic, eccentric minds find any kind of control and discipline objectionable, as hampering the full and free development of the powers which they imagine they possess. But such minds are generally of little use in the world. They are discursive, unmanageable, impracticable.

Besides, it must be remembered that there are two conditions or states commonly expressed in our language by the same word "student." They are distinguished one from the other in the two French words "étudiant" and "élève" better than by our equivalent words "student" and "pupil." The "étudiant" may be left to himself to work out his own path in his own manner, but the "élève" must, so long as he remains in that stage, be subject to discipline, guidance, and

direction. He needs them, they are essential to his condition, they resolve his difficulties, save his time, and strengthen his mind. When he passes out of this stage into that of the "étudiant" *pur et simple*, then he may be left to himself. He has learnt, or he ought to have learnt, before he quits that stage, the important lesson of self-guidance.

But there are other considerations bearing on the establishment of a curriculum which come to us from another point of view. Those who undertake the work of educating men for a profession like that of Medicine undertake a very grave responsibility and a very serious obligation to their fellow-creatures. The public rely on their good faith. They present to the public a duly qualified Medical man, a man stamped with their approbation and authorised by their diplomas, and they say to this confiding public, "Here is a man fit to take care of your precious bodies, to keep them sound when in health,(a) and to restore them to health when diseased." These are considerations of the very deepest moment. Can we, then, take too much care or apply too stringent a discipline to the preparation and moulding of the raw material which we have presented to us to work up into duly qualified Medical Practitioners? We think not, and therefore the stricter and more comprehensive the curriculum of Medical studies established by our educating and diploma-granting bodies, the more likely is it to meet with our approbation and favour.

Having said thus much in advocacy of a uniformly stringent curriculum, and in opposition to the laxity in this respect which some persons(b) appear to recommend, we proceed to describe the course of studies set down for the Medical student in France.

Let us, in the first place, inquire what amount of preliminary general education is required of the candidate who desires to become enrolled as a student in the Medical Faculty of Paris. Every aspirant for the degree of Doctor of Medicine, before taking his first inscription (that is, a kind of registration, accompanied with certain unimportant formalities), must be provided with the diploma of "Bachelier ès Lettres," obtained from one of the "Facultés des Lettres" in France, of which there are sixteen, besides that in Paris, established in different towns in France. The regulations which apply to the examinations for this diploma are the same in all these Faculties. The subjects of this examination are the following:—

1. Latin composition.

2. Translation of passages from a Latin author. The authors are chosen from those which have formed the subject of the courses of lectures delivered in the Faculty during the preceding year.

3. A composition in French on some subject chosen from the official programme of the class of philosophy in the Faculty (this includes logic, psychology, moral philosophy, and the ancient and modern philosophical writers). Four hours are allowed for the Latin composition, three hours for the French composition, and two hours for the Latin translation.

Those only who have passed the preceding tests are admitted to an oral examination in the following subjects:—

1. Explanations of a Latin, Greek, and French author, selected from those named in the official programme of the courses in the Lycées, with incidental questions in history and literature. The candidate may also, if he please, be examined in one of the modern languages.

2. Questions in philosophy.

3. Questions in modern history and geography.

4. In the elements of the sciences:—Algebra, geometry, cosmography, physics (gravity, heat, electricity and magnetism, acoustics, and optics), chemistry.

The oral examination lasts for three-quarters of an hour.

Though the programme of subjects is very extensive, yet the examination is not very formidable, as the scientific subjects are, of necessity, treated in a very elementary manner.

In point of difficulty it may probably be fairly compared with the matriculation examination of the University of London, except that in the latter examination the subject of philosophy is not introduced. When, however, the *viva voce* element is so largely introduced into examinations, as we shall subsequently find it to be in France, when we come to speak of the subject of examinations, it is by no means easy to estimate very precisely the nature of the test.

Yet another diploma is required of the student in Medicine before he can take his third inscription—that is to say, before the termination of the first six months of the regular Medical course. At that period he must present the diploma of "Bachelier ès Sciences," restricted as to the mathematical portion. This diploma must be obtained from one of the "Facultés des Sciences," of which there are the same number as there are "Facultés des Lettres," and situated in the same towns.

The examination for those who already possess the diploma of "Bachelier ès Lettres" comprises the following subjects:—

1. A composition on a subject selected from the prescribed course in the physical sciences.

2. An oral examination in one of the modern languages (German, English, Italian, or Spanish).

3. An oral examination in mathematics.

4. An oral examination in the physical sciences (chemistry and natural philosophy).

To these two preliminary educational tests the students of the Faculties of Medicine in France have to submit.

Next, as to the period of time over which the curriculum extends. The total number of "inscriptions," or quarterly registrations, which are required of the aspirant for the degree of Doctor of Medicine, are sixteen, so that the whole course of study extends over four years. At the end of each of the first three years he has to pass an examination. These examinations are distinguished by the title of "*examens de fin d'année*." At the *first* of these examinations—that is, at the end of the *first* year—the following are the subjects examined in:—

1. The applications of physics, chemistry, and natural history to Medicine, in accordance with the professorial courses on these subjects given in the Faculty during the year.

2. The elements of anatomy—bones, joints, muscles.

3. The elements of physiology.

The following are the courses of lectures set down in the curriculum for the student to attend during this year. Attendance, however, is not compulsory:—

In the Winter Session—Anatomy, with dissections, Medical Chemistry, Medical Physics.

In the Summer Session—Medical Natural History, Physiology, Pharmacy.

The student is also expected to attend to out-patient Surgery during the first Summer Session.

The examinations at the end of the year take place from July 15 to August 1. Any candidate failing to pass this examination is referred to the month of November following, and he loses the corresponding inscription—that is to say, his course of study is retarded three months.

The examination at the end of the second year is in Anatomy and Physiology, in *their whole extent*.

The courses of lectures which occupy this year are as follows:—

Winter.—Anatomy, with dissections, General Pathology, Surgery, Clinical Surgery.

Summer.—Physiology, Surgery, Medicine, Clinical Surgery.

Attendance on these courses is, as we have before stated, voluntary, and of all these subjects Anatomy and Physiology are the only ones that enter into the examination of this year. The courses on Medicine, Surgery, and Pathology are of necessity distributed over two or three years, as the Professors do not attempt, as those in our own schools do, to get over the whole of either of these branches of Medical science in one course, but take up each year different parts of these extensive subjects.

The examination at the end of the third year is in Medicine and Surgery, while the following are the subjects of the courses set down for the third year:—

Winter.—Dissections, Surgery, Medicine, Clinical Surgery.

Summer.—Medicine, Surgery, Operative Surgery, Accouchements.

The first three years of Medical studies are thus disposed of, during which period the student has to pass three distinct examinations, embracing the following subjects:—

The application of Physics, Chemistry, and Natural History to Medicine; Anatomy, Physiology, Medicine, Surgery.

The fourth year has yet to be dealt with. It is devoted in the *Winter* to Medicine, Legal Medicine, Clinical Medicine, Obstetrics.

(a) The importance of this part of a Medical man's work is daily receiving greater development.

(b) From the speeches of Dr. Storrar, in the debates of the Medical Council, he appears to be opposed to the establishment of an authoritative curriculum for the Professional subjects of Medical education.

Summer.—Pathological Anatomy, Materia Medica and Therapeutics, Hygiene, Clinical Obstetrics.

After the completion of the fourth year of study, the candidate for the Doctor's degree has to undergo five further examinations, distinguished from the *examens de fin d'année* by the title of *examens de réception*, and, independently of these, there is the additional trial of the "Thesis."

The first of these five examinations is in Anatomy and Physiology; this includes a practical dissection of some region, for which four hours is allowed.

The second is in Medicine, Surgery, and Operative Surgery, including the performance of operations on the dead subject.

The subjects of the third examination are, Medical Natural History, Medical Physics, Medical Chemistry, Pharmacology.

Those of the fourth examination are, Hygiene, Legal Medicine, Materia Medica, and Therapeutics.

The fifth examination is in Clinical Surgery, Clinical Medicine, Accouchements. This last examination includes practical bedside tests in the wards of a Hospital.

These examinations may be passed at such intervals of time as may suit the convenience of the candidate. Finally, there is the trial of the "Thesis." This consists:—1. In a printed dissertation on some subject connected with Medicine or Surgery chosen by the candidate. 2. In a verbal argument on the subject of the dissertation, as well as on a number of other subjects associated with Medical science drawn by lot by the candidate.

Such, then, is the curriculum of studies fixed by authority, and required to be followed by those who are candidates for the degree of Doctor of Medicine of the University of France.

It is true that there exists an inferior grade of Practitioners who possess the title of "*Officier de Santé*," and who undergo a modified and shorter curriculum. Their period of study is confined to twelve inscriptions, or three instead of four years.

They have to submit to an examination on entrance in subjects of general education—viz., Latin, Greek, and French grammar, the history and geography of France, and arithmetic.

They have to pass an examination at the end of each of the first two years—*examens de fin d'année*: that at the end of the first year, in Physics, Chemistry, and Natural History applied to Medicine; that at the end of the second year, in Anatomy and Physiology.

At the expiration of the three years, there are three further examinations—*examens de réception*: the first in Anatomy and Physiology; the second in Medicine, Surgery, and Accouchements; and the third in Clinical Medicine, Clinical Surgery, Materia Medica, and Therapeutics.

Those who possess the diploma of "*Officier de Santé*" can only practise in that department of France for which they have been received. Very few, therefore, take this diploma, except dentists, pharmaciens, and the holders of foreign degrees.

Let us now proceed to compare this course of study with that most commonly followed by the majority of the students of Medicine in this country. And, in the first place, let us examine what are required of them in the matter of preliminary general education. The certificates of so many different examining bodies are accepted as a qualification in general education, and there is such an utter absence of uniformity in the requirements of these multifarious examining boards, that it is next to impossible from these data to form any general estimate of the educational attainments of the student of Medicine in Great Britain and Ireland.

We will, however, select for our purpose the preliminary examination in general education required by the London College of Surgeons from the candidates for the diploma of Membership. This is of a very mild form A little English grammar, history, and geography; a little arithmetic, the translation of an easy passage in Latin and French, and the first book of Euclid. Certain other subjects may be substituted for French at the option of the candidate. This certainly cannot appear a very formidable test to the least accomplished and least industrious student, and will not bear comparison with the test in general education required by the French Faculty. Are the English youths so much behind the French youths in intellectual endowments that we are obliged to fix so low a standard for them? No one who has surveyed the assemblage of students in the amphitheatre of the Faculty of Medicine at Paris, and who is familiar with the class-rooms of our London Medical Colleges, will, we are sure, assent to this proposition. How, then, can we account for so much timidity on the part of the examining bodies and on the part of the Medical Council in dealing with the subject of preliminary education? It is, indeed, quite unaccountable. The Medical Council, after a great deal of deliberation, and after much opposition, have at length determined that, after 1869, Greek shall form an essential part of the examination in general education. But why should there be any hesitation in the immediate introduction of this subject into these examinations? If a knowledge of Greek is essential to any one, it is to the Medical man; for it is scarcely possible to understand a dozen of the commonest words used in scientific language without some slight acquaintance with the Greek language.

Is it possible that some of the members of the Medical Council remembered the dangerous attraction which an acquaintance with Greek gives one of the characters in "Les Femmes Savantes" of Molière?—

"*Phil.* Du grec! ô ciel! du grec! Il sait du grec, ma sœur!
Bel. Ah! ma nièce, du grec!
Ar. Du grec! quelle douceur!
Phil. Quoi! Monsieur sait du grec! Ah! permettez de grâce,
Que, pour l'amour du grec, Monsieur, on vous embrasse."

But that which appears to us to be the most serious defect and the gravest omission in our curriculum is the absence of any requirement of preliminary scientific training before the commencement of Medical studies, properly so called. No qualification is required of our students which corresponds to the diploma of "Bachelier ès Sciences" of the French Faculty. We are not sanguine that the natural and physical sciences will ever obtain any general introduction into the ordinary boys' schools in this country; but there is no reason why they should not be taught as a distinct preparatory course in connexion with our large Medical Schools for those who are destined to enter the Medical Profession. We are strongly of opinion that it is the duty of the Medical Council to advise the establishment of such preliminary scientific courses; and a certificate of having passed satisfactorily through such a training should be required of every candidate for admission to the regular course of Medical studies.

The need of such an education in preliminary science is strongly felt by some of our best teachers, and we cannot refrain from quoting some admirable remarks on this subject which were made by Dr. Odling in his Introductory Address this year at St. Bartholomew's Hospital. He says:—

"It is most unfortunate that, from the defective state of physical education at schools and colleges, much of the preliminary knowledge which you ought already to possess you will have to acquire here, whereby valuable time, which in this house of disease could be advantageously devoted to the work of your Profession, will be seriously encroached upon, and after all you will not obtain such a knowledge of general science as you ought to possess.

"By rights, I maintain no one should be allowed to enter at a Medical school without having a competent knowledge of the three great divisions of natural science—namely, physics, chemistry, and biology, whereby our distinct courses of comparative anatomy, of botany, and of general physics might be abolished from our curriculum of Hospital study as deriving no advantage from their association with Hospital work. Chemistry, indeed, as the basis of vital dynamics and the sheet anchor of rational therapeutics, must ever form an important branch of Medical education. But the sort of chemistry which you should be taught is very different from the chemistry which I am in the habit of teaching, and shall, I fear, long continue to teach. It should be an altogether special development of chemistry, having to the chemistry ordinarily taught much the same relation that the study of human anatomy and physiology has to the study of biology in general, and having a scarcely less direct bearing upon your strictly Professional duties."

The necessity for a previous scientific training for the Medical student cannot be more forcibly or more clearly expressed than in these words of Professor Odling.

We would further support our views as to the importance of a knowledge of the natural and physical sciences to the Practitioner in Medicine by reference to an address on Medical Education by Professor Huxley. After showing that "thorough grounding in physical science is the basis of all Medical education," he goes on to say:—"A young man leaves school; he comes to a Medical College perfectly ignorant, without a scintilla of a notion of anything about science, and within three years you expect him to learn physics or natural philosophy, chemistry, botany, zoology, with comparative anatomy, human anatomy, histology, pathology, therapeutics, Medicine, Surgery, obstetrics, jurisprudence. The thing is absurd. What you run a risk of doing is to destroy his mental digestion, and make a sort of intellectual

foie gras of him; but as for supplying information upon all those subjects of the kind and scope which he ought to have, in that time and with the current methods, it is out of the question."

In another part of the same address he observes:—"I hold that no man can have a proper knowledge of physiology, no man can understand what the Scotch well call the 'institutes of Medicine,' unless he has gone back still further, and unless he has acquainted himself with the general laws of the physical forces, and with the general powers of matter revealed by chemistry and biology."

"You ought to have this general knowledge of physical science *before you approach the study of Medicine.*" "If we could arrange things as they ought to be, all this general knowledge of physical science, all this acquaintance with the principles of physics, and chemistry, and biology, ought to have been acquired by you in the course of your ordinary education. If those who regulate education in this country had a right conception of what their duties are, or of the purpose of education, and the conditions of the progress of mankind at this present time, you would get that knowledge. And those who wish to improve Medical education must, to my mind, throw all their energies into the attempt to compel those who give us primary education to make physical science a very large constituent portion of that education." Let us quote also his eloquent summing-up:—"How different the case would be if the young men who come up for Medical education had been accustomed to handle physical experimental apparatus! Suppose that they had been accustomed to acquaint themselves with chemical formulæ, with chemical reactions; suppose they had learned—and there is no difficulty in learning these things—the great distinguishing characters of the different forms of life, and the great broad facts of physiology: I say, supposing they had done this, and that they came to the study of Medicine with their minds stored with important truths, accustomed to go back to facts at first hand, and disciplined in the methods of inductive and deductive reasoning, how much easier the task would be, not only for the learner, but for the teacher; and how vastly greater would be the stride made by every man towards that great goal I have already indicated – the establishment of a scientific Medicine."

We cordially endorse the recommendations of two such distinguished teachers as Professor Huxley and Dr. Odling, and we trust that the opinions which they have urged so forcibly and with so much authority will not be overlooked. We do not quite coincide with Professor Huxley's opinion that this work must of necessity be left to our ordinary schools, and that it must form an essential part of primary education. In the first place, we cannot wait for these Schools, and in the next place, if we could only obtain union and centralisation of our existing Medical Colleges, we should be independent of these Schools. What could be easier than to found a large school of preliminary science in connexion with our Medical Colleges? The young men destined for the Medical career should be required to spend at least one year in this school, and should be further required to pass a satisfactory examination in graduating from the preliminary scientific into the regular Medical course.

As a rule, men now-a-days commence the study of the Medical Profession when they are very young – too young for such studies as advanced physiology, pathology, and the like. It would be in every sense a gain to these young men, coming up as many of them do now at seventeen years of age, if they were compelled to pass a period of twelve months or longer in the study of purely scientific subjects. What a comfort it would be to the Professors in our Medical Schools if they could feel they were dealing with men who had already some knowledge of the facts and methods of science, instead of having to deal with such hopelessly raw material as now fills their class-rooms! It is now a terrible struggle between teachers and pupils. The teacher scarcely knows what to teach in the time afforded him, and the pupil certainly knows not what he is to attempt to learn. These evils are widely felt and admitted, and yet the will only is wanted in order to effect a change. In no place in the world, perhaps, are there such resources for teaching the natural and physical sciences as in this city. We only need associated action. We have the materials at hand for the formation of a magnificent course of preliminary science in connexion with our Medical Schools. We possess the power, by united action, of enforcing the adoption of such a course into our curriculum of Medical studies. We admit its importance and advisability; why, then, is it not done? Can the members of the Medical Council give a satisfactory answer to this question?

We reserve the consideration of the purely Professional part of the curriculum till our next.

GENERAL CORRESPONDENCE.

THE PLEA OF INSANITY IN BORDIER'S CASE.

Letter from Dr. Henry Maudsley.

[To the Editor of the Medical Times and Gazette.]

Sir,—Sympathising in the main with what seem to me the sound and sensible observations on the trial of Bordier which have appeared in the *Medical Times and Gazette*, I cannot forbear expressing my entire concurrence with your view of this unhappy case. It was not without surprise, mingled with regret, that I read the letters which Dr. Laycock and Dr. Wood, whose opinions cannot fail to carry weight in such a case, addressed to you: surprise, because the evidence furnished of Bordier's insanity at the trial was so weak, suspicious, and self-contradictory, that it seemed impossible it should produce conviction in the minds of those who had practical knowledge of insanity; regret, because the attempt to obtain the acquittal of a murderer as insane on such trivial grounds must inevitably increase the popular suspicion of the plea of insanity, and prejudice the cause of those criminals who are really insane. There can be no question that the law affecting offenders against it who are suspected to be of unsound mind, and who are put upon their trial, is unsatisfactory, and ought to be repealed; but if one thing has wrought more than another to prevent a modification of the law in accordance with scientific principles, it is the painful distrust excited in the public mind by the unwise attempts made to rescue from justice, on the ground of insanity, criminals whose main or only title to such a plea has been the enormity of their crime. The plea of insanity has become the lawyer's last resource in a desperate case; and the public has persuaded itself that a mad-doctor can always be found to support the most forlorn case. Bordier's trial is not likely to weaken that conviction.

The circumstances of his crime, which will be fresh in the recollection of your readers, were of no uncommon character. He had quarrelled with his paramour; she had resolved to leave him; he was irritated, depressed, and wretched; and he determined, rather than bear the misery of the desertion, to cut her throat, the throats of his children, and his own throat. Had he been an Englishman, he would probably have carried his resolve into execution without writing a letter to declare his intention and to explain his motives. But some amount of theatrical display is congenial to the nature of a Frenchman. If two lovers in Paris agree to commit suicide together by suffocating themselves with the fumes of burning charcoal, the chances are that they leave on the table, or send to their friends, a written declaration of their misery and of the reasons which moved them to end it. It argues the vanity of a weak character in those who thus insist on taking the world into their confidence, and imagine it will be interested in their confessions, but it is not sufficient evidence of insanity. No wonder, then, that Bordier failed to go through with his project, and that, frightened from his purpose by the first sight of blood, he got no further than the first act of the tragedy. Had he been really insane, it may well be doubted whether he would have thus faltered at the outset of his frenzy. What more natural in a sane person, what more unlikely in a madman, under the circumstances?

Mr. Simpson's evidence of the prisoner's statements and conduct immediately after the crime should obviously be received with extreme caution. His manner of searching for and discovering indications of insanity at his short interview was most objectionable, and it is impossible to resist the conviction that the questions were put in accordance with a theory preformed—perhaps unconsciously—in the mind, and so put as unavoidably to elicit support of it. The existence of this strong bias in his mind, leading captive his understanding, affords the only possible explanation or excuse of the assertion that Bordier did not know the legal quality of his act, did not know that he was doing wrong, in face of the positive evidence to the contrary, manifest in what he wrote immediately before and what he said immediately after the crime. Making

no undue allowance for this evident bias, I certainly fail to perceive in Louis Bordier's condition, as described by Mr. Simpson, or in the combination of circumstances which he marshalled in favour of his theory, anything inconsistent with sanity, or with that degree of sanity which a murderer may be allowed to possess. All the circumstances pointed to one conclusion—the conclusion adopted by the jury, endorsed by the judge, and vindicated by the law. That Bordier was rendered irresponsible by reason of mental disease seems to me a proposition only a shade less violently improbable than the assertion that he did not know he was doing wrong when he cut his paramour's throat.

But Bordier had suffered from an anal fistula, and had been depressed in mind and body by his disease. It is true that, as Dr. Laycock and Dr. Wood have pointed out, a fistula will sometimes produce despondency; it is also true that a murder may be a madman's act; but the majority of those who suffer from fistula are not insane, and the majority of murders are not perpetrated by madmen. I should hardly understand Dr. Laycock and Dr. Wood to argue that all who are afflicted with fistula are necessarily despondent and on or over the border of suicidal mania, or that the despondency undoubtedly produced by fistula in some cases always amounts to insanity. And yet, if they do not mean that, their letters, apart from the expression of individual conviction, have no bearing on the particular question of Bordier's insanity, but leave it exactly where it was; they contain certain generalities that may be true abstractedly, but no applied reasons to warrant the belief of Bordier's mental derangement, nor any argument of it drawn from an analysis of the evidence given at the trial. Now, in order to prove insanity, or even to raise the suspicion of it, in a particular case, something more is assuredly needed than the existence of a fistula on the perpetration of a murder. And where is this to be found in Bordier's case? Not a word was said at the trial of any manifestation of madness by him before the murder. Either such evidence was not forthcoming, or his counsel deemed it of such an unsatisfactory character as would injure rather than help the defence, and wisely refrained from calling it. The Surgeon of Horsemonger-lane Gaol and the Surgeon of Newgate, both of whom observed the prisoner daily for a time after his trial, saw no indication whatever of insanity in him. It is impossiole to pass by as of no account this direct and positive scientific testimony founded on ample personal observation. There remains, then, only the crime itself, together with the circumstances of its perpetration and the murderer's behaviour immediately afterwards.

Undoubtedly there is much room for difference of opinion as to the interpretation of what a man says or does just after he has committed a murder; but every one will admit it to be most necessary to view with great caution and jealousy any attempt to obtain the acquittal of a murderer on the ground of insanity when there is no evidence procurable of mental unsoundness before or after the crime—when, in fact, the crime itself is the only evidence offered. I trust that the English law will continue to look with extreme suspicion on the madness which, like Jonah's gourd, comes up in a night and vanishes in the morning.

I fear, sir, that you may think I have already trespassed unreasonably on your space, but I cannot help adding a few words in illustration of the mischievous consequences which flow from the Medical theories hastily put forward in cases like that of Bordier. On the occasion of the discussion which took place in the House of Commons on Townley's case, I remember hearing a rather violent speech condemning the commutation which had been made of his sentence; and the speech was loudly cheered. In the course of this speech the honourable member quoted a document in which it was stated, on official authority, that during seven years, from 1852 to 1858, seventy-nine patients were received into Bethlem Hospital who had been acquitted of murder or of attempts to murder on the ground of insanity, and that in several cases no symptom of insanity whatever was manifest during their residence in the Hospital. This statement was brought forward as convincing evidence of the mischievous character of Medical theories regarding insanity, and as constituting a fatal objection to the establishment of a Medical commission, or of Medical assessors, to aid in ascertaining the state of a prisoner's mind when the defence of insanity was set up. The speaker was Mr. Gathorne Hardy, now Home Secretary. I do not sympathise with his conclusions, but it is hard to be surprised at them. I am, &c. HENRY MAUDSLEY.

38, Queen Anne-street.

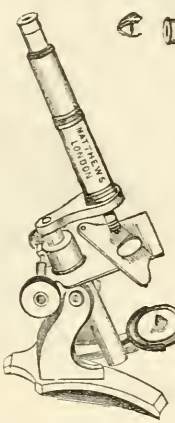
LAWSON'S CLASS MICROSCOPE.

LETTER FROM MR. W. MATTHEWS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your paper of the 26th inst. there appears an account by Dr. Lawson, showing how a hand microscope can be fitted with a stand as an ordinary microscope. I have anticipated Dr. Lawson's invention by fitting the hand microscope adopted by Dr. Beale with a stand.

Beale's microscope.



Beale's microscope on stand.

By the woodcuts herewith, it will be seen that this object is effected in a much simpler manner than by Dr. Lawson's plan, as, by my arrangement, the instrument, as a class microscope, is not so unwieldy as his (it being, in fact, an ordinary "Beale's microscope"), and, when fixed to its stand, is much more solid.

This instrument, when complete, costs the same as an ordinary student's microscope.

I am, &c.
W. MATTHEWS.

8, Portugal-street, W.C., October.

FARNHAM WORKHOUSE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Although I would not undertake to endorse the statement made by one of the guardians that the report of the *Lancet* Commissioners is "frivolous, vexatious, and false," yet I do venture to assert that it is exaggerated, and in some respects incorrect; and I am convinced that had they contented themselves with a plain matter-of-fact statement, instead of a thoroughly sensational article, they would have produced a far more favourable result, inasmuch as the guardians now feel themselves greatly aggrieved and most unjustly censured, and therefore repudiate the charge altogether, and decline taking any notice of it individually. They at once determined that the case should be fully and fairly inquired into by an impartial board, and I shall be surprised if my assertion is not fully proved.

As to the letters that have appeared in the *Times*, and to which such weight as corroborative evidence of the truth of the *Lancet* report has been attached, all who know the sources from which they came attach little value to them. This is especially the case with those of an Aldershot guardian, a young gentleman who has been elected but a few months, and whose name does not appear in the visitors' book. I write as independently as the *Lancet* Commissioners, and have therefore no desire either to extenuate or exaggerate the short-comings that really exist, and I admit that there is room for improvement, especially in the nursing department, which is insufficient.

As to the house itself, I would not bring it forward as a specimen of architectural beauty, nor are its internal arrangements perfect, or even as good as they might be; but I should say they are sufficiently good for the purposes required, and that it would be an unwarrantable expenditure of parish rates to think of abandoning such a building, especially as it has been altered and approved by the Poor-law Board. Besides this, the Government have at last recognised their responsibility, and established a Lock Hospital at Aldershot, so that the Farnham Workhouse will be almost entirely relieved of those special cases, for the reception and treatment of which the house was quite unfitted.

The Workhouse has never been looked upon as an Hospital, and the average number of acute cases (excepting those special cases) is not large. It does not follow, because two self-appointed amateur inspectors think proper to censure severely the whole management of the Farnham Workhouse as not coming up to a certain model standard of their own invention, that the public will be disposed to adopt their views. I imagine that they must be quite unacquainted with country life, or they would never have found fault with brick floors, seeing that nearly every cottage, and probably three-fourths of the kitchens in the best houses, have brick floors, as well as nearly all farm-houses; and I venture to think that there is not much cause for complaint in that. As to the state of the lavatory, if there is a deficiency of washing apparatus it is simply because a proper representation has not been made to the guardians for them. It was not a great while since a request was made for some basins, etc., by the late matron, and they were immediately ordered.

In conclusion I venture to assert, upon authority which I hold to be unquestionable, that, as a rule, the house is kept very clean, and that the inmates are fairly comfortable and contented; and, further, I am satisfied that the guardians are most anxious to perform their duties conscientiously, and have done so as far as they have been able. The great hindrance seems to be the manner in which they are hampered by the central authority, in consequence of which the guardians have all the responsibility, with little or no power to act, which places them clearly in a false position. This I believe to be a fair statement of the past and present state and of the management of Farnham Workhouse. It remains to be seen how far this will be borne out by the inquiry which is to take place on the 13th inst.

I would adopt as my motto, Audi Alteram Partem.

Farnham, November 7.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Monday, November 4.

Mr. Henry Smith, President.

Dr. Greenhalgh narrated the case of a patient who had been married eleven years, and she was then five and a half months advanced in her eighth pregnancy. She stated that after her last confinement, in January last, her abdomen did not decrease in size, as in previous labours, and that at the fourth month of her pregnancy she could scarcely move about, and could not lie down. On examination on October 23, the abdomen was found very prominent, and numerous veins were noticed beneath the integument. Fluctuation was well marked in every direction, but at the right iliac fossa there was a doughy, non-fluctuating swelling. The vagina was short and lax, and the os uteri fairly dilated. No ballottement could be detected. Was the case one of ovarian dropsy complicating utero-gestation, or was it conception with dropsy of the amnion? Should she be tapped, or should labour, which was somewhat advanced, be expedited? The latter course was agreed upon. After the administration of ergot, pains came on, which were followed by rupture of a dropsical amnion. Dr. Greenhalgh pointed out the extreme difficulty—nay, the impossibility—of arriving at a certain diagnosis in such cases, and the hazards incurred by those Practitioners who recommend tapping a fluctuating abdomen during pregnancy.

The President showed forty-one calculi which had come away from the bladder of an old gentleman. Thirty-four of them had passed spontaneously, and seven had been extracted entire by the lithotrite scoop; the former were about the size of peas, the latter were very much larger, and one of them was as big as a hazel-nut. The patient was under the care of Mr. Bloxam, of Ryde, with whom the President had seen the case in consultation. The case well illustrated the advantage of the small lithotrite in removing entire stones or large fragments. He also showed a large fragment of stone three-quarters of an inch long, and nearly half an inch broad, which he removed by this instrument.

The President also showed a large fibrous polypoid tumour, which he had removed from a boy at King's College Hospital, and whose case has been already reported in this journal.

An ingenious inhaler, by Mr. Curtis, of Baker-street, was then exhibited to the Society.

After which

Mr. Spencer Watson read a paper on "Obscure Surgical Diseases of the Face." The paper consisted of a review of a number of cases in illustration of the difficulty of diagnosis. The cases comprised (1) diseases of the deeper structures, such as the orbit, antrum, and jaws; (2) those of the superficial parts. Among diseases of the orbit, abscess connected with disease of the bones, and involving cerebral meningitis as its ultimate consequence; solid tumours; and simple and malignant growths. These were shown to give rise to very similar distortion of the features, and to have been mistaken for different diseases by some of the most eminent Surgeons. Abscesses and diseases of the antrum were then reviewed, and cases cited in which solid tumours were complicated by abscess of this cavity, and in which the presence of purulent discharge was only accidental. In another case, the superficial character of the swelling for some time resembled a solid growth, but ultimately terminated as an abscess connected with necrosis. The means of discriminating between the various forms of swelling of the superficial parts of the face resembling erysipelas were then pointed out, and a series of cases of ulcers of the face of syphilitic origin was given, in all of which there was for a time some obscurity as to their origin, but in which the progress of the cases ultimately cleared up the history. In two cases the swelling had so far resembled solid tumours as to make the Surgeon propose their removal by the knife. The paper was illustrated by preparations, drawings, and photographs.

A discussion then took place, in which Mr. Weeden Cooke, Dr. Cholmeley, the President, Mr. Risdon, and Mr. Francis Mason took part.

The next meeting was then announced for Monday, November 18, when Dr. Althaus will read a paper on "The Treatment of Tumours by Electrolysis."

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The quarterly meeting of the above Association was held at the Ship Hotel, Charing-cross, on Thursday, the 31st ult., and was numerously attended by members from various parts of the metropolis, as well as by several provincial Medical officers and honorary members. The President, Dr. Rogers, occupied the chair.

Among those present we noticed the following:—Dr. Thomas and Mr. B. Baker (St. Marylebone); Dr. King (Camberwell); Dr. Powell (Farnham); Dr. Dudfield (Westminster); Mr. Crellin; Mr. Vinall (Hackney); Dr. Rogers (Strand); Mr. Dodd (Lambeth); Dr. Richardson, F.R.S.; Mr. Hutchinson; Mr. Russell; Dr. Tilbury Fox; Dr. L. O. Fox (Broughton); Mr. Prowse (Amersham); Dr. Dixon (Bermondsey); Dr. Belcher (St. George's-in-the-East); Dr. Smyth; Mr. Monday; Mr. Defriez (Bethnal-green); Mr. Bennett and Dr. Saul (St. Paneras); Mr. Frost and Mr. Guazzaroni (Kensington); Mr. Norton (Holborn); Dr. E. Jones (Lewisham); Dr. Simmonds (Newington); Mr. Eugene Goddard (Clerkenwell); Dr. Welch, etc., etc.

The proceedings were commenced by the Hon. Secretary (Dr. Dudfield) reading the Quarterly Report of the Council.

The President then addressed the meeting; and, in moving the adoption of the report, congratulated the Association on its continued prosperity, on the large accession of provincial officers to their numbers since the last meeting in July, and on the fact that the views of the Association in reference to the evil practice of certifying pauper lunatics in police-courts had been supported by the powerful aid of the Commissioners in Lunacy. In regard to permanent appointments he could speak with freedom. He had a permanent appointment himself, and he was a signal instance of its necessity, for if he had not been so appointed he would not now be addressing them as the Medical officer of the Strand Union; for, from the efforts he had made to get the guardians to make improvements in their system of management, they would have long ago endeavoured to get rid of him. He held that it was impossible for Medical officers to do their duty to the sick poor in Workhouses and districts, unless they had permanent appointments, for they could not order what was necessary for their use without giving offence to the guardians and perilling their situation. Whatever the Poor-law Board might have omitted to do in not including parishes under local acts in their General Order of May 25, 1857, still, as the Order was based upon the recommendation of a select committee of the House of Commons

which was clear and definite, it should have been issued universally. It was desirable that this view of the committee should be insisted on; because, firstly, many Surgeons were only temporarily appointed; and secondly, because in the new appointments, consequent upon the Metropolitan Poor Act, it would appear that the officers were elected for short periods of time—only thus crippling their independence of action, and neutralising their usefulness. It would be, as a consequence, necessary to memorialise the Poor-law Board, and possibly to petition the Legislature. In regard to the salaries of the Medical officers, he contended that the fixing of these ought to be taken out of the hands of the local boards and fixed by the Poor-law Board itself. More especially ought this to be the case now, when they were paid, not out of the district rates, but out of a common fund raised over the whole of the metropolis. If the appointment and the payment of the salaries were in the hands of the Poor-law Board, they would not find such irregularities in the amount paid by different boards as at present prevailed. As an instance of that irregularity, take the following:—The St. Marylebone Guardians have just appointed three Medical officers for their Workhouse. To the senior, or visiting Surgeon—free to practise privately—they had granted a clear annual salary of £500, while the Resident Surgeon was to receive £190, and the Surgeon-Dispenser £90, making a total of £780. In St. Pancras, with a larger workhouse and more sick, the Guardians only paid the inadequate amount of £400 per annum for the same number of *Resident* Surgeons, whose whole time was to be devoted to their duties, and who received for their services respectively £200, £100, and £100 yearly. Such a system was ridiculous, and ought at once to be amended. He condemned as extremely objectionable the plan of confiding this large Infirmary to single and *resident* gentlemen only; the latter, if confirmed by the Poor-law Board, being a clear violation of a distinct promise of Mr. Hardy in the House, that *resident* Medical officers only should not be appointed. He also referred to the reported complete fog into which the Marylebone Guardians appeared to have fallen in regard to the Dispensary scheme, and their evident utter incompetency satisfactorily to deal with the question. From all this he argued the absolute necessity for more complete central control. He did not urge this solely in the interest of his Medical brethren. If the principles for which he was contending were correct, the same action should be taken, so far as the charges were derived from a common fund, for all clerks, relieving officers, and generally of the executive engaged in carrying out the provisions of the Act. He urged it also in the interest of the public, who should be protected from any favouritism being practised by local boards, and concluded by urging upon his brethren unanimity in demanding their rights, whereby they would be enabled, without injuring themselves, to secure that the claims of the sick and suffering poor should be more properly and efficiently dealt with. (Cheers.)

The motion, having been seconded by Mr. Norton, of Holborn, was unanimously adopted.

Dr. Richardson, F.R.S., one of the honorary members, in the unavoidable absence of Mr. Ernest Hart, moved the first resolution—viz., "That the Association, having taken into consideration the position of the Medical officers of *parishes* to which the General Order of the Poor-law Board dated May 25, 1857, has not been issued, and who are, therefore, not of right entitled to permanent appointment; and that the resolution of the select committee of the House of Commons in 1855—to give effect to which the said General Order has been issued to all *unions*—recommended that '*every* Medical officer should continue in office until he may die, resign, etc.;' requests the Council to memorialise the Poor-law Board to give complete effect to the said resolution by issuing the General Order to all *parishes*, and, further, if necessary, to petition the Legislature on the subject."

Dr. Dudfield supported the resolution, which was unanimously adopted.

Mr. Benson Baker, of St. Marylebone, moved the second resolution—viz., "That the Association, taking into consideration the fact that the salaries of the Medical officers in the metropolitan district will in future be paid in equal parts out of the Common Poor Fund and by Government; and that it has been admitted by the late President of the Poor-law Board, by the inspectors of the district, and by all other competent authorities, that the salaries hitherto awarded to such officers by the guardians are altogether inadequate, requests the Council to memorialise the Poor-law Board that they would be pleased to take the question into their own hands, and revise all salaries, and direct such increase thereof, upon a uniform basis, as to them may seem just and equitable."

A general discussion then ensued upon a variety of topics connected with the working of the new Act, members comparing their experiences and seeking advice.

It appeared that in no case had any Dispensary been provided under the Act; and in very few instances had any arrangements been made for the provision of medicines at the cost of the Common Poor Fund (Section 69); and some members were anxious to learn if the Act could over-ride their contracts which required them to provide the medicines. It was mentioned that District Medical Officers did not appear to have any claim for compensation if injured by the operation of the Act (sect. 46), unless indeed they had been employed in a local Act parish (sect. 76); and even then the prospect of their getting anything was reduced to a minimum by the action of the new Guardians in appointing them—as recommended by the Poor-law Board—for a year, under the new Orders of the Board. As for Workhouse Medical Officers it was shown that those appointed since March, when the Bill became law, if holding permanent appointments, could not be removed or have their contracts varied [sect. 59]; and it was suggested that this was the explanation of the new Guardians, having been advised to appoint their Medical staff temporarily, so as to leave the Poor-law Board free to deal with such cases as they deemed fit.

Altogether, many of the gentlemen present appeared to take a somewhat gloomy view of the prospects of the service under the new *Magna Charta!*

The proceedings of a long and interesting meeting were brought to a conclusion by a vote of thanks to the Officers and Council for their services during the past quarter, and to the President for his conduct in the chair.

MEDICAL NEWS.

Royal College of Physicians of London.—At a General Meeting of the Fellows held on Thursday, October 31, the following Member of the College was duly admitted a Fellow of the same:—

Thomas Hillier, M.D. Lond., 32, Queen Anne-street.

At the same meeting the following gentlemen, having undergone the necessary examination, were duly admitted Members of the College:—

Richard Douglas Powell, M.D. Lond., 13, Vigo-street; Augustus Burke Shepherd, M.B. Oxon., 28, Hyde Park-square; Thomas Henry Green, M.D. Lond., 74, Wimpole-street; John Buckley Bradbury, M.B. Cantab., Cambridge; Franz Oppert, M.D. Berlin, 31, Great Russell-street; Arthur Ernest Sansom, M.D. Lond., 29, Duncan-terrace, City-road; Arthur Wellesley Edis, M.B. Lond., 23, Sackville street; Frederick Barham Nunneley, M.B. Lond., Burton-on-Trent; William Guyer Hunter, M.D. Aberdeen, Principal of Grant College, Bombay.

Royal College of Physicians and Surgeons, Edinburgh. — Double Qualification. — The following gentlemen passed their first Professional examinations during the recent sittings of the Examiners:—

George Thomas Courtenay, France; Robert Lambkin, Cork; William Black Alexander, Edinburgh; John Ormsby, Dublin; Henry Jordan Simms, Newfoundland; John Stewart M'Gowan, Dumbartonshire; John Gulland Hunter, Madras; John Murray, Garthon;

and the following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh:—

Joseph Henry Kenny, Dublin; George Ogilvy Roberts, Edinburgh; John Harrison Nason, Dublin; James Barrett Menzies, Chatham; Warwick Jackson, Colchester; John Wilson, Dumbartonshire; Robert Stewart, Clackmannanshire: Henry Whitwell, Trichinopoly, India; Alfred Eugenius Dalgairns, Madras; Benjamin Evers, Madras; Orpen Beamish, Clonakilty; Samuel Mills, Newry; John Brander, St. Michael's, Azores; John Joseph Neville, county Cork; James Dunlop, county Down; Thomas Mannon Woodley Ahearne, Cork; Preo Nath Mookerjie, Calcutta; Thomas Fell, Durham; Michael Macmahon, Kildysert; Richard Sullivan, Bandon.

Royal College of Surgeons, Edinburgh.—During the recent sittings of the Examiners,

Mr. Andrea C. F. Rabagliati, Edinburgh,

passed his first Professional examinations; and the following gentlemen passed their final examinations, and were admitted Licentiates of the College:—

Neil Murray, Inverury; William Wallace Anderson, Saintfield, Ireland; Michael Upington Greany, Mallow; Hercules Scott Trail, Kincardineshire; James Ormiston Affleck, Edinburgh; William Dobbin, county Down; John Henry Penberthy, Penzance; Joseph Johnstone Monteith, Dumfries; William Albert Paxton, Parsontown; William Smith, Manchester.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 5th inst., and, when eligible, will be admitted to the Pass Examination :—

Henry Howell Spratt and John Percival Banks, students of the Middlesex Hospital; Frederick Tindall Le Fall and Samuel Hansom Wheatcroft, of the Sheffield School; Hugh Munro McKay and James Hird, of St. Thomas's Hospital; Joseph William Ward and Isaac Pitt, of the Birmingham School; Wilton Provis, of King's College; Edward William Spragge, of University College; John Walton Browne, of Belfast; William Bramley Taylor, of Guy's Hospital; Charles Frederick Hensman, of Charing-cross Hospital; William Henry Cringle, of the London Hospital; and Frederick Page, of Edinburgh.

It is stated that six out of the twenty-one candidates who appeared for examination failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for the full period of three months. The next Pass, or Surgical and Pathological Examination for the diploma of Membership will take place this day (Saturday).

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 31, 1867 :—

John Henry Gray, 12, Montague-place, Poplar; Michael Perry, Hanwell, Berkshire.

The following gentlemen also on the same day passed their First Examination :—

Edgar Cox, St. Thomas's Hospital; John Lloyd Roberts, General Hospital, Birmingham.

At the Competitive Examination on the 16th and 18th inst. for the prizes in Materia Medica and Pharmaceutical Chemistry annually given by the Society of Apothecaries to Medical students, the successful candidates were :—

1. James Ryall Rouch, St. Bartholomew's Hospital—Gold medal.
2. John James Ridge, St. Thomas's Hospital—Silver medal and book.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRADY, G. S., M.R.C.S.E., L.S.A., has been elected Honorary Secretary and Treasurer of the Sunderland Medical Society.

GRIFFITH, Dr. G. DE GORREQUER, Physician to the Hospital for Women and Children, and Physician-Accoucheur to St. Saviour's Maternity, has been appointed Honorary Physician to the Pimlico Orphanage.

HAPGOOD, PHILIP D., M.R.C.S., L.M., L.S.A., has been appointed House-Surgeon to the Great Northern Hospital, Caledonian-road, N., *vice* Michael Perry, M.R.C.S., L.S.A., resigned through indisposition.

HARRISON, G. W., M.R.C.S.E., has been appointed House-Surgeon to the Birkenhead Borough Hospital.

SMITH, R. AYRE, L.R.C.P. and S. Ed., has been elected Librarian of the Sunderland Medical Society.

SWAN, R. L., L.R.C.S.I. and L.K.Q.C.P.I., has been appointed Resident Surgeon to Dr. Steevens's Hospital, Dublin.

YELD, HENRY J., M.D. St. And., M.R.C.S. Eng., L.S.A., has been elected President of the Sunderland Medical Society.

BIRTHS.

BACOT.—On October 26, at 38, Upper Berkeley-street, W., the wife of Staff-Surgeon Major Bacot, of a daughter.

BIDDLE.—On November 3, at Edmonton, the wife of H. C. Biddle, M.R.C.S., of a son.

DAVIDSON.—On November 1, at Erith, Kent, the wife of Dr. J. Davidson, Staff-Surgeon R.N., of a daughter.

HARDING.—On October 29, at Mount Sandford, Tunbridge Wells, the wife of J. F. Harding, F.R.C.S., of a daughter.

KING.—On November 4, at Lansdowne-road, the wife of E. H. King, M.R.C.S.E., of 18, Stratford-place, of a daughter.

LLOYD.—On September 24, at Nellore, India, the wife of E. E. Lloyd, Esq., Surgeon H.M.'s Madras Army, of a daughter.

WALLIS.—On October 30, at Chester, the wife of Surgeon W. B. Wallis, 74th Highlanders, of a daughter.

MARRIAGES.

LOWE—HOLMES.—On October 31, at Holy Trinity Church, Paddington, G. M. Lowe, M.B., Lincoln, to Ella Maria Hamilton, third daughter of Lieutenant-Colonel H. Holmes, of Deer-park, Cloughjordan, Tipperary, late Brevet Colonel 12th Lancers.

MERCER—JOELL.—On October 29, at St. Mary Abbotts, Kensington, R. Mercer, M.D., F.R.C.S., of Trinidad, to Mary Jane, eldest daughter of the late R. Joell, Esq., of the same island.

MOORHEAD—STOPFORD.—On October 1, at St. Paul's Church, Poona, India, T. Moorhead, M.D., 26th Cameronians, to Angelina Mary Sophia, eldest daughter of the late Colonel J. Stopford, C.B., 64th Regiment. No cards.

NEWSHAM—BOWDEN.—On October 30, at Stoke Gabriel, near Totnes, Devon, Dr. A. Newsham, of Ivybridge, to Mary Hodson, eldest daughter of the Rev. R. Bowden, Vicar.

DEATHS.

AINSLIE, T., M.D., at Tientsin, China, on August 21, aged 32.

CARTWRIGHT, C., M.R.C.S.E., J.P. of Dudley, on October 22, aged 86.

OVERTON, ARTHUR, M.R.C.S.E., of Little Park-street, Coventry, on October 28, aged 33.

PROBYN, J. M., M.D., M.R.C.S. (late of Newbury, Berks, and formerly Superintendent of the Royal Glasgow Lunatic Asylum), at Chelmsford-terrace, Bayswater, on October 27, in his 76th year.

SMITH, H. C., M.R.C.S., of Springwood Cottage, Pudsey, near Leeds, on October 11.

VACANCIES.

BRADFORD INFIRMARY.—Resident Medical Officer.

BRIXTON DISPENSARY.—Resident Medical Officer.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Resident Clinical Assistant.

ISLINGTON DISPENSARY.—Resident Medical Officer.

NORTHAMPTON GENERAL INFIRMARY.—Dispenser.

POPLAR HOSPITAL.—Resident Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Fylde Union.—Mr. Thomas Shaw has resigned the Second Kirkham District; area 12,264; population 2319; salary £20 per annum. Also the Workhouse; salary £25 per annum.

APPOINTMENTS.

Bellingham Union.—Cuthbert R. Kendal, M.R.C.S.E., L.S.A., to the Fourth District.

Dartford Union.—George R. Cooke, M.R.C.S.E., L.S.A., to the Fourth District.

Drayton Union.—William E. Clendinnen, M.R.C.S. Edin., L.S.A., to the Cheswardine District.

King's Lynn Union.—Joseph W. Barrett, M.R.C.S.E., L.S.A., to the North District.

Leonard-ter Union.—David Davies, M.R.C.S.E., L.S.A., to the First District and the Workhouse.

DR. S. W. J. MERRIMAN is said to have resigned the office of Secretary to the Society for the Relief of Widows and Orphans of Medical Men.

UNIVERSITY OF GLASGOW.—The subscriptions for the new buildings on Gilmore-hill and Hospital already amount to the large sum of £101,600 19s. 2d. The sums subscribed vary in amount from £5000 to £25.

OXFORD.—Dr. G. W. Child, of Exeter College, has been appointed public examiner *in scientiâ naturali*.

THE plague is reported to have broken out in the Delta of the Euphrates, and to have attacked Kerbela and Bagdad.

WILLS.—The will of Professor Faraday has been proved with personalty under £6000. He leaves his property principally to his wife. The Scotch testamentary disposition of the late Sir Archibald Alison has been sealed in London under £15,000 personalty.

CHOLERA IN INDIA.—The latest telegrams from India state that the cholera, which had been severe in the up-country stations of the Bombay Presidency, has almost disappeared. It seems, however, that a very virulent cholera epidemic has broken out in the Persian capital.

SURGEONS TO THE ABYSSINIAN EXPEDITION.—The twenty Staff-Surgeons appointed for the expedition to Abyssinia sailed on Monday in the *Mendoza* screw steamer, which is to convey them to Massowah. The *Mendoza* carried also the force of Royal Engineers selected for the Abyssinian service, including the surveyors, photographers, telegraphists, well-borers, and signallers. Great applause greeted the departure of the troops.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting held on Monday, November 4, 1867, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, Thomas Anthony Denny, Esq., the Hon. John C. Erskine, Captain Alexander McNeile, and the Hon. Thomas J. Wynn, were elected members of the Royal Institution. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

ASSOCIATION FOR THE PREVENTION OF CONTAGIOUS VENEREAL DISEASES.—The first meeting of this Association will be held at the Stafford Rooms, Tichborne-street, Edgware-road, on Monday, November 11, at 8 p.m. The object of the Association is to promote the extension of the Contagious Diseases Act of 1866 to the large towns and seaports of the United Kingdom, and to obtain increased Hospital accommodation for persons suffering from venereal diseases.

REGISTRATION OF STUDENTS.—The annual return of the number of gentlemen pursuing their Professional studies at our English provincial Hospitals has just been made to the Government inspector of those institutions, from which it appears that the total number amounts to 257, being a decrease of only one from the last session. The number at each school ranges from 11 to 60. The following table will, no doubt, be read with some interest by both metropolitan and provincial teachers, commencing with 1860, the *annus mirabilis* at all schools. It appears that the total number at the nine English provincial schools in the respective years is as follows;

1860 . . .	333	1864 . . .	247
1861 . . .	258	1865 . . .	249
1862 . . .	248	1866 . . .	258
1863 . . .	214	1867 . . .	257

A SIGN OF THE TIMES.—The happy influence of the spread of civilisation in India as a consequence of British rule has shown itself from time to time, and never more favourably than in the tendency of Indians of good family to devote themselves to the pursuit of our various enlightened professions. This is especially true in regard to Medicine, and is aptly illustrated in the present year. One of our Indian princes, the Nawab Syad Ashgar Ali Khan, Bahadoor C.S.I., has just entered upon the study of Medicine, and is in regular attendance upon the lectures of St. Mary's Hospital Medical School. He shows the highest interest in the pursuit of Medical science, and proposes to return in due course to Calcutta, armed with the licences of certain of our examining bodies.

EMPLOYMENT OF AN ELECTRO-MAGNETIC CURRENT IN STILL-BIRTH.—Dr. Packard, of Philadelphia, relates a case in which "the child lay perfectly flaccid, blue, and cold. I dashed brandy over it and rubbed it vigorously, then cut the cord (pulsation in which was active), put the child in warm water, and after a minute or two wrapped it in a warm blanket. About half a drachm of brandy was poured down its throat. The rubbing was kept up, and artificial respiration by Silvester's method resorted to. Still the efforts at breathing became less powerful and less frequent. Finally, I sent for my Neff's electro-magnetic battery, one pole of which was applied to the nape, and the other kept moving gently about the lower margin of the thorax, while a very slight and intermittent current was passed; soon the muscles of the chest began to act more strongly, and at length a vigorous cry announced the full expansion of the lungs."—*American Journal of Medical Science, October.*

SUICIDE BY SWALLOWING CHLOROFORM.—A healthy man, aged 26, swallowed two ounces of undiluted chloroform, and composedly laid himself down to die. In about three minutes he was roused with difficulty from the stupor into which he was rapidly sinking, and could not speak, but indicated that he had severe pain in the stomach. In five minutes he was utterly unconscious, lying still and breathing stertorously. He died just one hour after taking the chloroform, no Medical assistance having been obtained. There was great lividity of the surface of the body, and bloody froth issued from the mouth and nostrils. Both lungs were found dark externally and fully distended. They were uniformly congested with dark fluid blood, the posterior portions being completely engorged. Both sides of the heart were nearly full of black uncoagulated blood. The liver and spleen were normal externally, but somewhat softened, and filled with dark liquid blood. The œsophagus was congested, and the stomach, at the cardiac end and larger curvature, was dotted externally with ecchymosed-looking patches, giving it a mottled appearance. It contained two or three ounces of a light-coloured fluid, having a slight odour of chloroform. The mucous membrane was of a dark red colour, softened, and easily peeled off with the nail.—*American Journal of Medical Science, October.*

ENGLISH OPIUM-EATERS.—It is said by those who know anything about the matter that the number of opium-eaters and laudanum-drinkers in England is a large one, and the statements recently made by a Physician would, if corroborated, go far to show that this impression is correct. In a lecture delivered before the Leicester Philosophical Society a few days since, Dr. Buck stated that opium-eating was a vice very prevalent in that town. "The quantity of opium and laudanum sold in Leicester is out of all proportion for merely Medical requirements. Two druggists here, on whose information reliance may be placed, tell me that they sell 130 lb. of opium and its preparations in twelve months. As these quantities may not convey any definite idea of their importance, I may state that the quantity of opium used at the Infirmary is $2\frac{1}{4}$ lb. per year, being less than a fiftieth part of the quantity sold by my two informants." It would be interesting to carry out the inquiry in other towns, to see whether Dr. Buck's figures are at all exaggerated. We think the result would show that in most of the large manufacturing towns opium-eating is by no means an unfrequent habit.

THE MEDICAL TEACHERS' ASSOCIATION.—We are requested to publish the following circular:—

"November 9, 1867.

"Sir,—The annual meeting of the Medical Teachers' Association, for the election of officers and other members of the Council for the ensuing year, and to hear and discuss certain motions which will then be brought forward, will be held at the Rooms of the Royal Medical Benevolent College, 37, Soho-square, on Monday, the 18th of November, at eight o'clock in the evening precisely, Sir William Fergusson, Bart., in the chair. "I am, Sir, your obedient servant,

"BERNARD E. BRODHURST, Secretary.

"*List of Officers and other Members of Council nominated for* 1867-68.

"*President:* John Simon, F.R.S. *Vice-Presidents:* William Jenner, M.D., F.R.S., and Campbell de Morgan, F.R.S. *Treasurer:* Francis Sibson, M.D., F.R.S. *Secretaries:* Robert Bentley, F.L.S., and Bernard Edward Brodhurst. *Elective Members of Council:* Francis E. Anstie, M.D; Richard Barwell; William Allen Miller, M.D., F.R.S.; Alexander W. Williamson, Ph.D., F.R.S.

"The following is the list of Representative Members of the Council for the ensuing year, appointed by the undermentioned Schools:—

"*Charing-cross.*—H. Hyde Salter, M.D, F.R.S., and Henry Hancock.

"*King's College.*—Robert Bentley and J. Soelberg Wells, M.D.

"*London.*—Andrew Clark, M.D., and Charles F. Maunder.

"*Middlesex.*—E. Headlam Greenhow, M.D., and Campbell De Morgan, F.R.S.

"*St. George's.*—Andrew Whyte Barclay, M.D., and Timothy Holmes, M.A.

"*St. Mary's.*—Francis Sibson, M.D., F.R.S., and Ernest A. Hart.

"*St. Thomas'.*—Samuel Solly, F.R.S.

"*University College.*—J. Russell Reynolds, M.D., and John Marshall, F.R.S.

"*Westminster.*—Henry Power, M.B., and Carsten Holthonse.

"The following resolutions will be brought before the Association:—

"1. That in the opinion of the Association the registration of the Metropolitan Students of Medicine should be performed at one office only.—Proposer, Mr. Ernest Hart; seconder, Professor Bentley.

"2. That it is desirable that the lecturers and teachers constituting this Association should agree upon a uniform method of marking attendance upon lectures and in the wards; and should settle the minimum which should justify the signature of schedules; and that a committee be appointed to report thereon to the next meeting of this Association.—Proposer, Mr. Campbell De Morgan; seconder, Dr. Andrew Clark.

"3. That in the opinion of this Association it is desirable that the out-patient department of Hospitals should be systematically utilised in clinical instruction, and that a committee be appointed to draw up a scheme for the purpose, with a view to its being considered by the Association, and submitted, after approval, to the examining boards.—Proposer, Dr. John Ogle; seconder, Mr. Wells."

PORTABLE PUMPS.—The ingenious contrivances for extemporising wells, which were found so valuable by the Federal troops during the late American war, have been supplied to our army on the Abyssinian expedition, and will, it is hoped, supply water of a better quality than that which the exploring party has just found, and whose colour the *Pall-mall* compares to *café au lait*. These portable pumps seem likely to prove successful, if we may judge from the following description of them given by our contemporary the *Standard*:—"An iron tube, similar to ordinary gas piping, and of an inch or more in diameter, furnished at the bottom with a tempered steel point, and pierced with small holes for a foot or two from the point, is driven or worked by hand a few inches into the ground, just far enough to allow it to stand upright and support a weight without falling. A

strong iron clamp is then fixed by clamping screws to the tube at a short distance above the ground, and considerably higher up the tube, which is some six feet or so in length, is attached another clamp supporting two pulleys. An iron monkey, or cylindrical weight, through which the tube passes, can be raised or lowered by means of cords passing over these pulleys. The monkey, being raised by two men, is allowed to fall on the lower clamp with a series of repeated blows, driving the tube into the ground. When the lower clamp becomes level with the surface of the earth, it is raised up the tube, as are the clamps supporting the pulleys of the monkey, and successive lengths of tubing can be screwed on to reach any required depth below the surface. The tube having been driven down far enough for its point to reach water, a common suction pump is applied, and the water is drawn up. As the water is pumped up, the sand and gravel round the point of the tube fall away, and a small pool or well is formed, from which water is drawn with the greatest facility. Under ordinary conditions of soil, three-quarters of an hour will suffice to establish a pump of clear water; but of course the time must vary with circumstances."

EMBALMING.—Mr. J. L. Grefulke, a merchant, who lately died leaving £500,000, has directed in his will that his body should be embalmed and placed in a glazed coffin, so that air and daylight should not be excluded. It is ultimately to be burnt. He desires his executors to expend £160,000 in charitable and pious purposes.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition.(a)	Oxidisable Organic Matter.(b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	19·67	1·00	0·56	13·5	4·5	0·004
West Middlesex	16·67	0·85	0·52	12·5	4·0	0·004
Southwark & Vauxhall	18·50	1·00	0·59	13·0	4·5	0·004
Chelsea	—	—	—	—	—	—
Lambeth	19·00	1·25	0·60	13·5	4·5	0·004
Other Companies.						
Kent	27·50	0·75	0·26	18·0	7·5	0·000
New River	17·00	0·25	0·31	12·0	3·0	0·001
East London	19·20	0·50	0·49	13·0	4·5	0·001
Surface Wells in City.						
Idol-lane, by church	81·33	2·00	0·06	32·0	16·0	0·004
Leadenhall-street	120·00	11·51	1·51	50·0	—	1·281
Dunning's-alley	74·67	8·00	0·96	36·0	—	0·008

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

PRODUCTION OF SCURVY ARTIFICIALLY.—A paper has been laid before the Royal Academy of Vienna, by M. A. Russak, of St. Petersburg, in which the author records several interesting experiments made with a view to discover the effect of common salt in producing scurvy. In M. Russak's first observation the web of a frog's foot was examined under the microscope shortly after a dose of salt had been subcutaneously administered. In this case the capillaries were found dilated and charged with blood globules. M. Russak next immersed a number of frogs in solutions of salt of 5 per cent. strength. The animals lived for only three days, and post-mortem examination revealed the existence of numerous ecchymoses of the heart, the muscles of the lower extremities, the liver, lungs, and kidneys. The interdigital membrane presented a single capillary from whose ruptured walls a number of blood corpuscles had made their escape. Dogs submitted in like manner to the action of common salt were found to give similar results.

SECRETION OF NITROGEN IN THE BODY.—The excess of nitrogen which the excreta show over the quantity introduced as food has been explained by MM. Voit and Bischoff to be due to the transposition of the nitrogenous constituents of the body. Herr Seeger has now taken the subject up, and has laid before the Academy of Vienna a report of several experiments conducted by him upon animals. He arrives at these conclusions:—1. The organism possesses other channels than the intestines and kidneys for the removal of the nitrogen of the transposed nitrogenous tissues. 2. Under conditions as yet unknown, the whole of the transposed nitrogen is contained in the solid and liquid excreta. 3. Under other conditions, a portion of this nitrogen is got rid of by other channels, probably the skin and lungs. 4. The difference between the nitrogen ingested and the nitrogen of the solid and liquid excreta cannot, therefore, be taken as the measure of the increase or transposition of the animal tissues.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

B.C.—All nebulæ are not clusters of stars; some have been proved to be *fire mists* by spectrum analysis.

Medicus.—Apply to J. Charles Savory, M.R.C.S., 27, Marina, St. Leonard's, for the newest information as to the climate, accommodation, etc., of Hastings and St. Leonard's.

Studens.—*Aspera arteria* is the Latin name given in Surgical books of the last century to what we now designate by the Greek term *trachea*. *Arteria* signifies *air-vessel*, and whereas the other arteries or supposed air-vessels are smooth, the large air-vessel of the lungs is rough. Hence the names *aspera* and τραχεῖα.

E. B.—We are assured on good authority that there is no immediate prospect of any material change in the laws relating to public health, or in the constitution of the local authorities charged with the administration of those laws, although rumours to the contrary seem to have prevailed through the "*wish*" that is so often father to the "thought."

Vox et præterea nihil.—We are ready to answer all such questions to the best of our ability. 1. The etymology of the word *apricot*. There is but little doubt that we get the fruit from France, and the word from the French *abricot*; and that the root of the word apricot must be sought in that of its French predecessor. This, says Littré, is derived from the Spanish *albaricoque*, which again is derived from the Arabic *birkouk*, or *al birkouk* with the article. The Arabic *birkouk* is said to be derived from the Low Greek πρεκόκιον, which again comes from the Low Latin *præcoquum*, which again is derived from *præcox*, an epithet deserved by the *Prunus armeniaca*, or apricot, on account of the early ripeness of its fruit. This is, as Littré observes, a roundabout pedigree for a word, and a singular instance of a Latin term brought back to the use of Western Europe by the medium of the Arabs. But it is consistent with facts, and with the synonyms *albicocca* and *albricoque* in Italian and Portuguese; whereas, to deduce *apricot* from *apricus* is a mere piece of haphazard guessing, based on a casual resemblance. The French word *apricot* could not come from *apricus* without violating every law of etymology. 2. Between *sanitary* and *sanatory* we are tired of deciding. *Sanitary* refers to the preservation of *sanitas*, and *sanatory* refers to the office *sanare agros*. That two words are derived from one root, does not make them identical or interchangeable. Else why distinguish between *human* and *humane*, *amator* and *amateur*, *spiritual* and *spirituous*, and the like?

Sailors on West African Shores.—The statements contained in the "note" referred to were originally communicated to the *Morning Star*. Though contradicted by Mr. Wilmot, they are substantially true. Since the publication of Mr. Wilmot's letter, we have been in communication with the officers of West African ships, and have had our assertions fully confirmed. It is usual to send sailors up the rivers to assist the Kroomen in bringing down the cargo. Mr. Wilmot denied this on the *à priori* ground of the cheapness of native labour; but he forgot that English sailors in receipt of the usual wages, and who would otherwise be unemployed, are cheaper than even natives. Our existing system of ship-inspection is so miserably defective, that we almost despair of seeing any improvement of the condition of the sailors on the African coast. The difficulty of obtaining evidence in cases where the men have been ill-used by captains is extremely great, owing to the fact that, except in very flagrant instances, Jack has no one to appeal to for redress. We cannot give you the name of the vessel alluded to in our note, for the simple reason that we are bound to protect the ship's officer who first gave the information we published, and gave it on the sole condition that his position with the ship-owners should not be damaged. This much, however, we may state upon our own personal authority: the vessel is still in St. Katherine's docks, and is one of the smallest and filthiest craft we have ever seen out of the coasting trade.

Thomas Guy.—You are too late; it commences this day. Why not consult our advertising columns?

Obstetric, Liverpool.—You will find the first lecture of Dr. Barnes in this journal of July 13. Dr. Croft attended Her Royal Highness.

Evonensis is thanked; we have a correspondent.

Mr. Armstrong.—The Government Inspector of Metropolitan Anatomical Schools is Mr. Charles Hawkins; of the Provincial Schools, Dr. Cursham, York-chambers, Adelphi.

A Fellow.—The vacancy in the Council caused by the death of Sir William Lawrence will not be filled up until July next.

An Old Guy's Man.—The portrait of Sir Astley Cooper by Sir Thomas Lawrence is in the College of Surgeons.

Aurist.—It is believed the person is dead, and that another has assumed the name, which has been removed from the College list for unprofessional conduct.

A Provincial Teacher.—The return appeared exclusively in the *Medical Times and Gazette* of the 19th ultimo; in the present number you will find correspondiug information on the provincial schools. We shall be glad to receive the promised communication.

Dr. McBride.—You will find the information, and the Act regulating the qualifications of Practitioners in Medicine and Surgery, in the Register of the Medical Council. There were 694 registered at £5 each, producing £3470. The salaries, etc., exclusive of fees to the Council, absorbed £2946 4s. 8d.

UNDERGROUND RAILWAY ATMOSPHERE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As one of the Medical men engaged to give evidence at the late inquest as to the probable effect of such noxious vapours as carbonic acid gas or sulphurous acid gas in cases of diseased heart, and one who paid particular attention to the evidence, will you let me say that the "important question" referred to by you as omitted or forgotten, as to "whether the air analysed" was collected before or after the Company had thrown open the gratings above the station at Gower-street, was not at all omitted, but freely discussed; nor were the gratings or glass at all thrown open, as represented in the journals in a "sensational" manner, consequent on the case of this poor woman. I am, &c.

Sackville-street, Nov. 2. CHARLES KIDD, M.D.

INSANITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—By your permission I will make a few remarks on the letter of Professor Laycock of last week. That each case of presumed insanity must stand or fall on its own particular evidences, I suppose we can all agreed upon. How far that quoted of Muggeridge would resemble that of Bordier, had Muggeridge killed his wife under a delusion similar to believing he had shot the bandsman, the Professor does not give us sufficient antecedents and data of Muggeridge to form an opinion upon. I am aware he draws his own conclusion, stating also that the man appeared to have had drink. The question arises, if Muggeridge be subject to these hallucinations, whether he should be shut up. The Dundee case of a labouring lunatic killing his sister cannot be *apropos* to the Professor's argument, for why was this man at liberty? If every person deemed lunatic or mad were executed for what is called murder, or whipped for assaults, could any one seriously forbid it who entertained pity and justice for the unoffending victims? I give all credit to Professor Laycock and those who think with him for their opinions, but they are evidently biassed in favour of the aggressor rather than the sufferer. Moral depravity and abandoned self-control will break out into the most wild, wanton, and diabolical vagaries. In private life the writer has been acquainted with persons subject to suicidal and homicidal thoughts haunting the mind without motive or object. They have been considered temptations of the devil, and they have prayed to be freed from such visitations. What wonder that persons practising no resistance or self-control, or the subjects of such thoughts arising from a brain muddled by intemperance, should give way to them? But those who so give way are responsible agents, or we must admit within the pale of exemption a very numerous class of the worst of mankind. In all disputed cases I apprehend my Lord Westbury and his court of law are to be trusted for a sober, common-sense, impartial decision rather than the Professor and his school. I am, &c. SPECTATOR.

COMMUNICATIONS have been received from—

Mr. DALTON; Mr. COPNEY: Mr. NASH; Mr. LAWSON TAIT; Dr. SCEKLING; Mr. WRIGHT; Mr. CUTCLIFFE; Mr. GANT; SPECTATOR; Dr. KIDD; Mr. HALCOMBE; Dr. LETHEBY; Dr. FOTHERBY; Dr. GRANT; Dr. DUDFIELD; Mr. HAVILAND; Mr. BURGESS; Mr. WHITMELL; Mr. ROBERTSON; A STUDENT; Mr. BARNES; Mr. WATHEN; Dr. LOWE; Dr. ANDEWS; Dr. BARNES; Dr. COFFE; Mr. W. MATTHEWS; Dr. BALL; Dr. DAY; Mr. CHATTO; Dr. HUGHLINGS JACKSON.

BOOKS RECEIVED—

Pharmaceutical Journal, No. 101—Everybody's Year-book for 1868—Ure's Dictionary of Chemistry, part 42—Edinburgh Medical Journal, No. 149—Monatsschrift für Ohrenheilkunde, No. 1—Medical Mirror, No. 47—Glasgow Medical Journal, No. 19—Sinclair on Lying-in Hospitals—Statistical Report of the Health of the Navy—Southey's Nature and Affinities of Tubercle—New York Medical Journal, No. 31—Journal of Anatomy and Physiology, second series, No. 1—Morrison's Germinal Matter, second edition—Watson's Excision of the Knee-joint.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 2, 1867.

BIRTHS.

Birthe of Boys, 1041; Girls, 1054; Total, 2095.
Average of 10 corresponding weeks, 1857-66, 1914·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	597	599	1196
Average of the ten years 1857-66	636·6	606·1	1242·7
Average corrected to increased population ..	..	..	1367
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	4	3	4	3	2	2	3	..
North ..	618,210	5	15	19	1	1	14	5	..
Central	378,058	2	..	9	2	9	7	2	..
East ..	571,158	..	4	4	1	7	13	7	..
South ..	773,175	1	10	18	3	11	15	6	..
Total ..	2,803,989	12	32	54	10	30	51	23	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·786 in.
Mean temperature	48·5
Highest point of thermometer	64·0
Lowest point of thermometer	33·0
Mean dew-point temperature	44·9
General direction of wind	S.W.
Whole amount of rain in the week	0·68

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 2, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Nov. 2.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Nov. 2.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2095	1421	1196	64·0	33·0	48·5	0·68	69
Bristol (City) .	165572	35·3	141	74	186	58·7	39·5	50·0	1·00	101
Birmingham (Boro')	343948	43·9	241	167	148	58·6	38·5	49·8	0·77	78
Liverpool (Borough)	492439	96·4	393	285	273	55·3	40·8	47·8	1·34	136
Manchester (City) .	368823	80·9	257	205	†266	58·5	31·5	46·1	1·59	161
Salford (Borough) .	115013	22·2	86	58	59	57·8	32·3	47·2	1·61	163
Sheffield (Borough).	225199	9·9	170	119	105	56·1	35·5	45·5	0·85	86
Leeds (Borough) .	232428	10·8	240	118	102	58·5	30·3	46·6	0·44	44
Hull (Borough) .	106740	30·0	74	49	51	57·0	32·0	44·1	0·74	75
Nwcstl-on-Tyne, do.	124960	23·4	100	66	72	55·0	35·0	44·4	0·29	29
Edinburgh (City) .	176083	39·8	123	85	69	51·7	35·0	44·3	1·00	101
Glasgow (City) .	440979	87·1	371	257	206	53·2	34·2	44·3	0·45	45
Dublin (City and some suburbs) .	319210	32·8	117	†157	144	59·0	28·7	46·5	0·54	55
Total of 13 large Towns . .	6187764	34·8	4416	3061	2777	64·0	28·7	46·5	0·88	89
					Week ending Oct. 26.	Week ending Oct. 26.				
Vienna (City) .	560000	..	..	..	241	..	..	53·4	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·786 in. The barometrical reading increased from 29·27 in. on Sunday, October 27, to 30·39 in. at the end of the week.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 52·1°.

APPOINTMENTS FOR THE WEEK.

November 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

11. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

12. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. "The Ethnology of Abyssinia from the Report of Consul Plowden, with Observations by John Crawfurd."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Sedgwick, "On some Analogies of Cholera, in which Suppression of Urine is not accompanied by Uræmic Poisoning." Dr. Fuller, "On Excess of Urea in the Urine as a Guide in the Diagnosis of Dyspepsia and Nervousness."

13. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

HUNTERIAN SOCIETY (Council, 7½ p.m.), 8 p.m. Dr. Ward, "On Abscess of the Liver."

14. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

15. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

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53, PALL-MALL, S.W.

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The Medical Club is established for the social intercourse of Members of the Medical Profession of this and other countries, and of Gentlemen connected with Literature, Science, and Art, as well as Members of other Scientific Societies.

The present Rooms were opened on January 1st, 1867, since which time upwards of 1700 visits have been made to the Club by different Members. In consequence of the increasing use made of the Club, additional Rooms have been engaged, which it is confidently anticipated will add greatly to the convenience and comfort of the Members. Further additions and improvements are in contemplation, and will be carried out as soon as the income of the Club will justify the Committee in incurring the outlay.

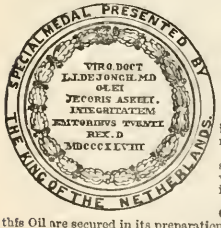
As many Gentlemen have expressed a desire to join the Club who were unacquainted with the alterations proposed in the terms, the Committee have decided to continue the following rate of admission for the PRESENT YEAR:—Entrance, Five Guineas. Annual Subscription for Members residing within ten miles of the Club, Three Guineas; those resident beyond ten miles, One Guinea.

In accordance with the resolution passed at the General Meeting held at the Hanover-square Rooms, November 8th, 1866, the Rules have been revised by Counsel, who has certified that "Members are not liable for any debts incurred in carrying on and keeping up the Club, unless they order goods for the Club, or authorise the same to be ordered, in their names."

Authors are invited to present copies of their published Works, or any useful publications, more especially Books of Reference, to the Library.

Gentlemen desirous of joining the Club are requested to apply either to Dr. LORY MARSH, Honorary Secretary; or to Mr. THOMAS FOWLE (late of the Oxford and Cambridge Club), General Manager.

MEDICAL CLUB, 53, PALL-MALL,
June 11th, 1867.



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ORIGINAL LECTURES.

CLINICAL LECTURES ON CEREBRAL HÆMORRHAGE.

By Professor BÉHIER.

Gentlemen,—I place before you the brain of a patient who has just died of cerebral hæmorrhage in our male ward. He had been suddenly affected with hemiplegia, and had immediately become unconscious—a symptom which at once enabled us to affirm the existence of serious injuries in the central parts of the brain. He died, without ever recovering his senses, from asphyxia, which in such cases, according to the remark of my venerable master, Professor Andral, usually terminates the scene.

The autopsy having been made, we discovered an enormous clot, larger in size than a hen's egg, in the left hemisphere. The process of resorption had not even commenced—in fact, the patient was a weak and worn-out subject; besides, the clot itself was much too voluminous to disappear in this manner.

Without dwelling on this special point, I propose, gentlemen, to seize this opportunity of discussing the organic causes of cerebral hæmorrhage, with a view to exhibit the important progress which science has recently achieved on this point. I will therefore undertake a short retrospective review of the opinions which have at various times been expressed on this point. No doubt, in doing so, we swerve from the ordinary line of clinical teaching, but I feel confident that you will not reproach me with this slight irregularity, my purpose being to call your attention to recently discovered facts of the highest importance.

Looking backwards for some few years, we find that the opinions entertained on this subject have considerably varied at different periods. In general, the mechanical conditions to which this accident has been referred are of two kinds:—1. Excessive pressure on the arteries of the brain; 2. Diminution of the normal elasticity of their walls.

Hypertrophy of the heart has long been considered as one of the principal causes of apoplexy. Legallois, Corvisart, Ménière, and Professor Bouillaud agree on this point. Their views, however, have been contradicted by Todd and by Professors Grisolle and Monneret, and I have myself laboured to show that this is only an accidental coincidence.

In fact, hypertrophy of the heart can have no influence in the production of apoplexy, when it merely acts as a compensation, which is rendered necessary by an impeded state of the circulation resulting from valvular disease. Hasse in 1855, Eulenburg in 1866, have sufficiently proved this. When, however, there exists some peripheral obstacle to the progress of the blood—atrophy of the kidneys, for instance, or diffuse induration of the arteries—then, indeed, an excess of vascular tension may be produced in the brain by an enlargement of the heart, and hæmorrhage may possibly ensue. But the morbid alterations of the vessels themselves are by far the most frequent cause of similar accidents.

As regards those atheromatous incrustations of the larger arteries, which, by counteracting the lateral pressure of the blood, increase the degree of vascular tension, they only play a secondary part in the production of cerebral hæmorrhage when no other morbid alterations exist. The same may be said of mechanical obstructions, obliteration of vessels, compression of the jugular veins, and cerebral atrophy, the influence of which has been brought forward by Leubuscher and Niemeyer, but which, according to Hasse, has no perceptible effect.

The consistency of the cerebral substance may sometimes be considerably diminished, and this alteration had been noticed by Pariset, in 1811, as one of the causes of cerebral hæmorrhage. This opinion was taken up at a later period by Rochoux, who considers softening of the brain as the preliminary step towards hæmorrhage (*ramollissement hémorrhagipare*). This idea is only an extension of the views entertained by Professor Cruveilhier, who had long ago spoken of capillary apoplexy. But our modern notions on softening of the brain, on its mode of production, and on the causes which give rise to the passive infiltration of the diseased parts, are altogether opposed to this hypothesis. Hasse formally contradicts it, and I fully agree with him, notwithstanding the arguments brought forward by M. Durand-Fardel. The error has probably arisen from a mistaken view of secondary imbibition.

Rupture of vessels, produced by diminished elasticity of their walls in consequence of softening of the brain, may no doubt play a certain part in the production of apoplexy, but such cases are excessively rare. Pestalozzi and Dr. Charcot, however, have each of them adduced an instance of this.

Rokitansky and Virchow have both described a peculiar state of the walls of vessels, in which, without any histological alteration of structure, their elasticity is impaired through imperfect nutrition. They consider disease of the kidney as the chief cause of this peculiar change, adopting in this respect the opinions of Bright, Gregory, and Rayer.

I cannot possibly accept this hypothesis, in spite of the eminent authorities which plead in its favour; nor can I agree with Kirkes and Traube, who consider the contact of disalbuminated blood as highly irritating to the internal surface of the heart and vessels, and who thence are led to admit, in such cases, the existence of an extravasation, producing apoplexy. This is evidently a mere theoretical view, altogether unsupported by facts.

Another alteration, which some very eminent authors have thought fit to connect with cerebral hæmorrhage, is fatty (or granular) degeneration of the capillaries of the brain. This morbid process, which Professor Robin discovered in 1849, was carefully investigated by Professor Paget in 1850; he has accurately described the formation of these small fatty deposits, which gradually coalesce into larger masses, and diminish the resisting power of the smaller arteries of the brain.

Professor Robin, in a paper published in 1856, stated granular degeneration to be the principal cause of cerebral hæmorrhage. But contradictors soon arose, who denied the influence of this alteration. Long before Professor Robin had described the lymphatic sheath which protects the capillaries of the brain, Bennett had declared that, although surrounded by fatty deposits, the vessel itself remained perfectly sound. Dr. Ranvier fully adopts this opinion, and Dr. Bouchard, one of the pupils of that celebrated school of the Salpétrière, the eminent services of which have not yet been fully appreciated,(a) has proved that this alteration is not a primitive but a consecutive one; that it is frequently the consequence of softening of the brain; and that, in cases of cerebral hæmorrhage, it results from the morbid process which takes place after the extravasation of blood, instead of preceding it. I do not, therefore, think it possible, in the present state of our knowledge, to agree with Professor Robin, who considers fatty degeneration of the capillaries as the ordinary cause of apoplexy.

The atheromatous condition of arteries, which was mentioned for the first time by Abercrombie as connected with cerebral hæmorrhage, has been taken up by later writers. Bouillaud, Grisolle, Rokitansky, Valleix, Niemeyer, and Eulenburg consider it as the chief cause of apoplexy. I have already told you that I cannot reconcile this opinion to my judgment. I admit the explanation, no doubt, as far as meningeal hæmorrhage is concerned. One of the very first autopsies which I made in this Hospital exhibited a rupture of the middle meningeal artery, which was exceedingly atheromatous. But it must be acknowledged that in cases of encephalic apoplexy the arteries of the brain are generally free from similar deposits. What are the results of statistics on this point? According to Dr. Durand-Fardel, in thirty-two cases of cerebral hæmorrhage—

The arteries of the brain were sound . .	4 times
Their walls were thickened . . .	19 ,,
,, ,, ossified	9 ,,

This table seems favourable to the hypothesis which we are at present discussing.

But in thirty-two other cases, in which death was attributed to various causes, the same observer ascertained that—

The arteries of the brain were sound . .	9 times
Their walls were thickened . . .	21 ,,
,, ,, ossified	2 ,,

This second table evidently contradicts the results of the first.

The following figures are given by Dr. Bouchard, who borrows them from Drs. Charcot and Vulpian:—

In thirty-nine cases of cerebral hæmorrhage, the arteries of the brain were—

Sound. . . .	7 times	(age of patients,	62 to 84)
Nearly sound . .	11 ,,	(,, ,,	53 to 81)
Atheromatous . .	13 ,,	(,, ,,	53 to 84)
Highly atheromatous .	8 ,,	(,, ,,	66 to 88)

(a) The Professor here alludes to Drs. Charcot and Vulpian, Physicians to that Hospital.

The cerebral arteries are, therefore, in a perfectly healthy state in 18 out of 100 cases of apoplexy according to Dr. Bouchard, and in 12 out of 100 according to Dr. Durand-Fardel.

We have at length arrived, gentlemen, at the most important part of this discussion. A new cause of cerebral hæmorrhage has been discovered by Drs. Charcot and Bouchard. I particularly desire to call your attention to this point, both on account of its importance and on account of the facility with which the fact can be ascertained.

The alteration consists in small *aneurisms* of the capillary arteries of the brain, far different from those which occupy the larger branches, and which have been accurately described by Dr. Gougenheim. The aneurisms we allude to are situated on vessels of a minute size. They consist in small ampullary dilatations, sometimes laterally developed, but generally fusiform. They are visible to the naked eye under the shape of dark red granulations, about the size of a pin's head, disseminated over the surface and in the interior of the brain. In the very centre of the clot one or more of these little aneurisms are found to exist, and their cavity communicates freely with the extravasation by an aperture, around which float the broken fragments of the external membrane. This opening resembles in every respect the ordinary ruptures, which allow an aneurismal sac to pour its contents into the neighbouring cavities.

One of these small aneurisms existed in the brain of the patient whose case I have just related; it had burst into the cerebral substance, and had given rise to the extensive hæmorrhage which the autopsy had revealed.

(The preparation was here laid before the class.)

Dr. Bouchard has observed that the blood sometimes collects between the external and the middle coat of the artery; at a later period the external coat itself gives way, and hæmorrhage is then produced. The coagula contained in the aneurismal cavity are continuous with the clot which fills the cerebral focus.

Since the moment when my attention was first called to this subject, I have discovered similar aneurisms in all the cases of cerebral hæmorrhage in which I have been able to perform the post-mortem examination. This alteration, therefore, may be viewed as one of the principal causes of apoplexy. I do not pretend to say that it exists in every case, but I fully believe that, on proper investigation, it will be discovered in the great majority of cases.

So important a discovery, gentlemen, is assuredly a scientific conquest of the highest order, and we cannot sufficiently praise the laborious perseverance which has led to such brilliant results. How different from those theoretical views in which our predecessors too often delighted!

I have thought, gentlemen, that it would be profitable to undertake, in your presence, this anatomo-pathological review, since I had it in my power to exhibit a preparation which must convince you that the doctrine I have laid down is founded on positive facts. In our next lecture we will endeavour to analyse the principal symptoms which are usually observed in similar cases.

Odontological Society.—At the ordinary monthly meeting of this Society, held Monday, November 4, the President, G. A. Ibbetson, in the chair, Mr. Balkwill read a paper on some of the relations between the forms of teeth and the conditions of life in the mammalia. The President announced that at the next meeting, December 2, Dr. Murie, of the Zoological Gardens, would read a paper on a case in a rhinoceros where, from the presence of a foreign body, disease of the alveolus has ensued; and on a case of diseased bone and tooth structure in a bear.

Medical Charities.—During the past week information has been received of legacies in favour of the following provincial Hospitals. Under the will of the late Mr. Joseph Pocock, of Warminster, Wilts, the Salisbury Infirmary and the Bath United Hospital will each receive £100; and Miss Susan Colquitt, of Green Bank, near Liverpool, has bequeathed the following sums—viz., to the Liverpool Royal Infirmary, Brownlow-street, £300. The Northern and Southern Hospitals, Liverpool, £200 each. The Northern and Southern Dispensaries, of the same town, £150 each, and the Seaside Infirmary, at New Brighton, £50. Both the above individuals, who have left £1250 to Medical charities only, have left large sums to other institutions not strictly Medical, and have directed all legacies to be paid free of duty.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF FEMORAL ANEURISM.(a)

By LAWSON TAIT,
Member of the Surgical Society of Ireland, etc.

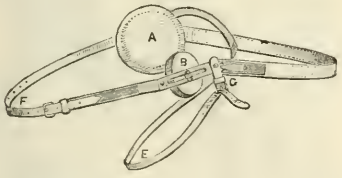
There is perhaps no point in which the advance of conservative Surgery in recent years shows to greater advantage than the treatment of aneurism. Could we with advantage withhold the knife as often in other diseases as we can now do in aneurism of the limbs, and even to a certain extent in the trunk, we might claim for our art that it was well on the road to become a science. Although as early as between the years 1757 and 1785 cases of aneurism in the lower limbs had been treated by general compression by Guattani and others, and though Hunter and Richerand had even used direct pressure on the artery, effected by means "of a semicircular steel spring, like that of a rupture truss," yet, on the principle laid down by Sydney Smith, when he says that the man is not the first discoverer of any art who first says the thing, but he who says it so loud, and so long, and so clearly, that he compels mankind to hear him, we must give the whole credit of the great improvement in the treatment of aneurism to the Surgeons of the Irish School, more especially to Hutton, Bellingham, Cusack, Todd, Tufnell, and Porter.

The Surgeons of last century failed in most cases to cure aneurism by pressure, and the Surgeons of our own day fail in many, because the means generally adopted are not suited to fulfil the conditions required. John Hunter saw that the rapid occlusion of the sac by clot was the same thing as a rapid cure of the aneurism, but the means he adopted were such as the patients could not tolerate. Compression has failed in our day for this reason to a great extent, but also for another—that the impression exists that only a diminished circulation through the tumour is required to *laminate* the clot and fill the sac. That this may be the case in some few instances is probable, but to lay it down as a general rule seems to me little more than the statement of a theory unsupported by facts. The old statement that aneurisms were sometimes spontaneously cured by the pressure of the sac on the artery is now generally regarded with great suspicion, if not absolutely disbelieved, while we know that the sudden and perfect obstruction to the circulation through a sac, whether accidentally or by means of the ligature, generally effects a cure. It follows, therefore, from these premises that, *cæteris paribus*, if a vessel be occluded as suddenly and effectually by means of some external pressure which could be borne by the patient for the same time that is necessary for the coagulation of the blood in the sac when the ligature is used, the success of the pressure would be equal to that of the ligature, and greater than it by the difference of risk involved in the disuse of the knife. Again, we have the opinion of one well worthy of attention, Mr. Henry Lee, that the lamination of the fibrin has as much to do with the increase of the tumour as it has to do with its cure, that each fresh layer merely adds greater leverage power to the force of the blood in enlarging the diameter of the tumour, and that the cure takes place only when a bridge of fibrin is formed over the aperture of the sac. This bridge of fibrin would, of course, be only the last of the laminations; but this view of the pathology of the cure of an aneurism affords a very strong reason for the use of a pressure that will perfectly obstruct the flow of blood into the sac.

The first and most important condition, as it seems to me, is that the circulation should be at once and thoroughly interrupted for a period sufficient for the firm coagulation of the blood in the sac. To effect this, the galvano-puncture of Pravaz is utterly futile, and, even were it not so, nothing would ever induce me to countenance its use in another case. In one case, where I assisted to kill the patient by its means, the fatal result was caused beyond doubt by the evolution of gases from the decomposition of the water of the blood. The introduction of heated needles or of injections of iron may induce rapid occlusion of the sac, but they are just as likely not to do so, and they are apt to induce inflammatory action. The condition will be best obtained either by pressure or the ligature, and the patient's chance of recovery will be greatly increased if it can be done by the former. The form of pressure which is

(a) Read at the Leeds Medical Club.

best suited for the purpose is undoubtedly that of the fingers of trained assistants. But, as Mr. Bryant has most correctly stated, few can keep up an adequate pressure for more than ten minutes at a time, and in ordinary practice it is utterly impossible to obtain the number of assistants requisite to keep the obstruction uninterrupted. All the instruments for compression which I had tried and seen tried previous to Mr. Reade's were so irksome that they could be borne for no length of time. Besides, it may be, as happened to me lately, that the patient is a "Hospital bird," and not particularly anxious to get cured if not in immediate danger, or at least will not endure much or give very active assistance towards his recovery. The plan by flexion I have tried, and should say of a man who had his aneurism cured by it, that he had powers of endurance beyond anything else I know. I have tied up my own leg and the healthy legs of others, and I have not seen one yet that could stand it an hour, while the three men with popliteal aneurism, in whom I have seen it tried, always let down their legs within ten minutes after they were put up. In July last a case of aneurism was admitted into the Clayton Hospital, under the care of Mr. Walker, senior Honorary Surgeon, which was exactly suited for compression according to the description given by Mr. Holmea. The tumour was not of large size; the parts covering it were not at all inflamed; the joint was not involved, and we had every reason to believe that the aneurism was on the superficial surface of the artery. The facta that the man was only 28 years of age, and that Mr. Pridgin Teale had tied his other femoral artery for popliteal aneurism only seven months before, strongly contra-indicated the use of the ligature. Flexion was tried alone, and in combination with compression by Signoroni's tourniquet, and compression was tried alone, all to various degrees and extent, for nearly a fortnight, but the fellow could not, or would not, stand any of them. We were nearly giving it up in despair, when it fortunately occurred to me to write for aid and advice to my friend, Mr. Porter, of Dublin, who, with his usual kindness, at once forwarded to me the instrument figured below. I applied the apparatus at 9 p.m. on the 22nd, and had the satisfaction to find that in four hours the pulsation was quite gone and the tumour hard. I allowed the compressor, however, to remain on all night and the greater part of the next day. Immediately before its application the measurement of the knee round the middle of the patella was 16½ inches, and I could readily empty the tumour of all its contents, showing that the previous endeavours had been followed by no result. The patient complained of no inconvenience whatever from the use of the instrument; in fact, he seemed to think it was an experiment I was making preparatory to some operation, and did not seem to believe me for some days after I had told him that his aneurism was cured. He afterwards expressed his disgust to a friend that he had not, as he expected, been good for another four months in Hospital. He left on August 17, with the tumour less than one-third of its original size.



The compressor which obtained such a signal success in this case was devised by Mr. Reade, of Parliament-street, Dublin. It consists of a circular pad, A, from which radiate a steel spring, C, and two straps, E and F. The pad is placed on the back of the thigh or buttock; the spring loosely encircles the thigh, passing under the perinæum; the strap E passes over the ileum of the unaffected side, to steady the apparatus, being fastened as shown at C; the strap F passes over the ileum of the affected side, also aiding materially to steady the apparatus, but having for its principal object the exertion of leverage power on the pad B. At C the spring has a horizontal joint, with a movable catch, so that the lower arm carrying the pad may be altered in direction to suit either side. The pad B works in a slot with a thumb-screw, so that the direction of its axis or the length of its lever may be altered at will, while the lever-arm is bent up for about an inch, and then squared, so as to very materially increase the power. The pad is oval, an inch and a half by an inch, and made of hard leather—a point, I think, of some importance. The only protection required for the skin is a little French chalk. When the pad has been accurately applied over the artery close, either above or below, to Poupart's ligament, the lever is to be depressed until the pulsation is quite checked, and the strap fastened one hole tighter than is necessary to secure this, as the skin yields considerably. The advantages of the instrument are its lightness, its cheapness, its readiness of application, and the freedom from pain involved in its use. As I regard it as the perfection of ingenuity in Surgical mechanism, I make no apology for thus briefly introducing it to English Surgeons.

Wakefield.

FIRST LINES OF THE PATHOLOGICAL PRACTICE OF SURGERY.

WITH ORIGINAL CASES AND ENGRAVINGS.

By FREDERICK JAMES GANT, F.R.C.S.,
Surgeon and Pathological Anatomist to the Royal Free Hospital.

No. VI.

THE VITAL HISTORY OF COMPOUND FRACTURE AND DISLOCATION IN THE TREATMENT OF THESE LESIONS—THE QUESTION OF AMPUTATION, AS THUS DETERMINED.

CLOSELY allied to contused and lacerated wounds are the lesions which I now proceed to consider, the only difference being the additional element of fracture or dislocation, involving one or more bones or the articulatory portions of a joint. This superaddition, in either case essentially a laceration, may or may not be subordinate as a *lesion* to that of the soft parts.

But the *vital* history of compound fracture and dislocation—their purely pathological significance—is similar to that of any contused or lacerated wound *per se*; it, therefore, was selected as the *typical* lesion, representing certain pathological *laws* in the treatment of the whole class of injuries which are thus allied.

A lingering tendency to reparation by primary adhesion, an inevitable destruction and loss of texture, to some extent, by gangrenous disintegration or inflammation, with suppuration often profuse, but destruction limited to the extent of injury and ultimately defined by sloughing or traumatic gangrene; and finally, reparation by the process of suppurative granulation supervening;—such are the prominent and practical features of course and tendency which guide and regulate the treatment of *all* contused or lacerated injuries.

Compound fracture undergoes this series of changes; the continuity of the soft textures being restored by the formation and growth of fibro-cellular tissue, in the shape of granulations, while the osseous breach is rejoined, just as in simple fracture, by ossification taking place in that tissue as an intermediate callus. Since my paper on Simple Fracture appeared in this Journal I have received, among other gratifying communications, an interesting specimen from Dr. Cheves, of Devonport, which corroborates the self-sufficiency of an intermediate callus, even where the fractured ends of bone are subject to more constant movement than in the common fowl. A transverse fracture of the *furculum* or collar-bone of a partridge was thus united, and without the slightest displacement. Some thickening of the bone immediately above and below the line of fracture only renders the (intermediate) callus more conspicuous, which appears, therefore, as a circular indentation of the bone. This modification only of "primary adhesion" is very suggestive in relation to Veterinary Surgery, as in the human subject it is to Surgery, and the question of fracture in Medico-legal inquiry. The formation of some amount of external and internal callus in compound fracture of a large bone is perhaps more common than after simple fracture, owing generally to the greater mobility of the part, and contingent on the greater amount of damage in compound fracture.

Compound dislocation is subject to the same series of changes, destructive and reparative, but restricted to the ligaments, tendons, or other *soft* textures connected with the injury.

It will be observed, however, that the whole vital history, thus far, pertains to the *textures* of the *part* in their various states of contusion or laceration. But changes of a constitutional origin occasionally complicate the otherwise localised history of textural destruction and reparation.

Spreading traumatic gangrene may supervene on compound fracture, or, indeed, on any contused or lacerated lesion. Such gangrene is traumatic only, in that injury is the immediate or exciting cause; but its spreading beyond the extent of injury, and without limitation eventually by a line of demarcation, is a twofold distinctive character which points to some blood-condition in operation as the more essential cause. This gangrene is the local manifestation of a *constitutional* cause rather than the consequence of a local one. Its pathological significance is corroborated by two facts of correlation—that the contusion or laceration is quite subordinate in extent to the supervening gangrene, and that it occurs in persons especially who are under the influence of albuminuria, a state of urine indicative of the retention of excrementitious matters, chiefly urea, in the blood.

Treatment.—Compound fracture suggests the same general indications of treatment as simple fracture—*i.e.*, timely interference by the reduction of any displacement, and the maintenance of coaptation by some form of appropriately retentive apparatus. But certain particulars of pathological condition peculiar to compound fracture may affect the fulfilment of these indications.

Reduction of displacement sometimes presents special difficulties. They are principally these:—*Protrusion* of one or both ends of bone, by the violence of fracture, the weight or mal-position of the limb, by rough handling, or by muscular action. Any protrusion thus arising can generally be overcome by proper extension, aided perhaps by slight incision to relieve tension or constriction around the projecting portion of bone. *Deformity* of bone, as from rickets, is an exceptional occasion of protrusion. Excision of the projecting portion is not unfrequently necessary to effect reduction. Union firm and permanent may ensue; and with or without reproduction of new bone to that extent, as an intermediate callus. In the latter case the limb is proportionately shortened. In one such case, under my care in the Hospital, the tibia was sharply arched forward by rickets; I removed two inches of bone—an inch from either fractured end—thus straightening the limb, and the result was highly satisfactory, firm osseous union taking place, and a far better-shaped limb than before the accident (*Lancet*, 1862).

It should be observed that, in severe compound fracture, excision is a more "conservative" operation than amputation, intervening, so to speak, between that operation, and saving the life at the cost of the limb; but that this intermediate measure is suggested by a due consideration of the lesion in respect to its vital course and tendency—its pathology. I entered at some length on this department of Pathological Surgery in the *Medical Times and Gazette*, 1865. Excision will also be found efficient in certain other conditions of protrusion—*e.g.*, with *contusion* or bruising of the fractured ends of bone, as happens in gig-accidents, the upper fragment of the tibia possibly coming in contact with the earth. Compound fracture of *diseased* bone suggests a similarly partial operation, and in *persistently ununited* fracture, excision of the inert portions of bone may bring the reparative power into operation.

Splinters of bone, in compound fracture, if but partially detached, sometimes retain their vitality and regain connexion; if completely detached, any such fragment is a foreign body, and should be removed accordingly, especially if, intervening between the ends of bone, it prevents coaptation, and perils the formation of callus.

Any reduction difficulties having been overcome, ought the wound to be closed by a pledget of wet lint, and the fracture thus converted into the condition of a simple one? The question may sound strange. Considering the obvious difference in safety and time between primary adhesion and the process of suppurative granulation, the former mode of reparation should be first solicited in *all* cases. But the attempt should be abandoned immediately effusion and tension supervene in any degree, which clearly indicates the necessity for a free discharge of clots and matter during suppuration. *Early* solicitation of adhesion, and *timely* abandonment of the attempt in favour of suppuration, as soon as this event occurs or is inevitable, constitutes a compromise, which overrules any objection as to the *probable* failure of the one and supervention of the other. The Surgical treatment of suppuration, conformably to its course and tendency, is principally anticipatory of its consequences. Incisions—early, free, and dependent—are then appropriate, to facilitate the discharge of matter and to relieve tension. Otherwise the pent-up matter, working its way about the seat of fracture, dissects and detaches the bone, periosteum, muscles, nerves, and vessels; and destroying their continuity, the fracture remains ununited, the parts around become saturated and sodden, and an irreparably disorganised limb is the result. Or, pending these changes, gangrenous disintegration may supervene—another mode of deatruction. The *encouragement* of suppuration or sloughing, when either occurs or is inevitable, will facilitate textural disintegration, and hasten reparation by granulation. Hence the application of warmth and moisture, in the shape of a light poultice or spongio-piline epithem, is the obvious suggestion of pathology, and which ordinary experience sanctions without interpreting its relation to the vital history of that process. Any further treatment is protective only, by water dressing, as in the case of any healthy granulating surface.

Compound dislocation suggests the same general indications of treatment as simple dislocation, with regard to timely interference by reduction, and the maintenance of coaptation by some form of appropriately retentive appliances. But, like compound fracture, certain peculiarities of pathological condition may affect the fulfilment of these indications. Reduction may present special difficulties. If the bone *protrude*, *excision* is preferable to forcible reduction, if, indeed, the latter be possible. The head of the astragalus, for example, should be removed when, by dislocation forwards, it protrudes, and perhaps cannot be returned.

The same general considerations as with compound fracture hold good in the after-treatment—of first closing the wound for the chance of primary adhesion, subsequent encouragement of suppuration or sloughing when either is inevitable, and, eventually, protection of the granulating surface.

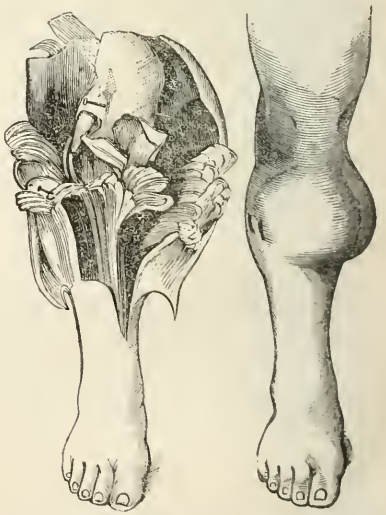
The foregoing rules of treatment have reference to the preservation of the limb—in compound fracture and dislocation—as well as the obvious indication of saving life.

Amputation.—The Surgical *justification* for sacrificing a limb—the great "question of amputation"—turns upon the same considerations as with regard to any contused or lacerated wound;—the probable supervention of profuse suppuration or traumatic gangrene; in either way, the limb becoming *irreparably* disorganised, and the life thereby endangered.

1. When the *whole substance* of a limb is involved, suppuration profuse and gangrene are both *inevitable;* there is, therefore, no alternative but amputation, and primarily to anticipate their destructive issue.

Such was the condition in a case of *compound* and *comminuted fracture* of the *tibia*, just below the anterior tubercle, with *fracture* of the *fibula*, one inch below the head of that

Fig. 1.



bone (Fig. 1, showing appearances on removal of integuments). But there was also (as represented) extensive *laceration* of the

muscles, particularly of the tibialis anticus muscle, which was torn across and thrown inwards over the tibia; the *anterior tibial artery* was torn through (as indicated by the lower pin in the figure), but the corresponding nerve and the musculo-cutaneous nerve (seen above) were entire. Here, then, in addition to the worst kind of fracture of both bones, the conditions were present of inevitably profuse suppuration, by extensive laceration of the muscles, and of impending gangrene, by rupture of the anterior main artery.

This injury was caused by contusion of the leg between a brewer's dray and a post, and I may add, therefore, another lesion had occurred—*extensive detachment* of the *skin* from the deep fascia of the limb, the superficial, cellular, or subcutaneous fascia being infiltrated with blood. It corresponded to the large sheath of integument thrown back in the figure. This condition I have found also in the dissection of many other limbs severely injured by direct violence. It may be present without any wound in the skin, or discoloration at first, and it may exist far beyond the apparent seat of injury, thus misleading as to the *part* proper for amputation.

The characteristic external appearance of this typical example of bad compound fracture is represented in the adjoining figure of the limb, as seen within a quarter of an hour after the accident. The swelling, of considerable size, corresponded to the lacerated and blood-engorged extensor muscles, and their displacement inwards over the tibia. Four apertures in the skin, the two upper communicating directly with the fracture, complete the picture.

An analogous condition of compound dislocation, involving the *whole substance* of the soft parts, is represented in Fig. 2,

Fig. 2.

the integuments having been removed from the limb to display the various kinds and extent of lesion. Unique, as a new form of elbow-joint dislocation, by dislodgement of the radius and ulna outwards and *upwards* on to the external ridge of the humerus above the condyle, the forearm had thus undergone an "external latero-angular dislocation." The relative position of the bones, and thence the peculiar appearance of the joint externally and configuration of the limb, are more particularly described in the *Brit. and For. Med.-Chir. Rev.*, January, 1866.

But—as justifying amputation—the lesions *coexisting* were these. A large lacerated wound about the middle of the fore-arm in front, exposing the muscles and a portion of both bones, with the interosseous membrane. All the flexor muscles, superficial and deep, were torn across, partially or entirely, sparing their tendinous and aponeurotic portions, which appeared deep in the wound as so many shreddy strings from which the muscular substance had been raked off. All the vessels and nerves, however, excepting, of course, their muscular branches, had escaped rupture; the ulnar nerve, the inferior profunda artery accompanying it above the joint, and the ulnar artery in the forearm, the median nerve with its interosseous branch and the corresponding branch of artery, and lastly, the radial artery and nerve. But the skin was almost completely detached from the sheath of the muscles on the front and back of the forearm, and some way above the joint. The large tract of subcutaneous cellular texture thus disorganised was infiltrated with blood, not discernible through the skin, which appeared unbruised. A small contused aperture just above and behind the inner condyle communicated directly with the joint, constituting a compound dislocation.

This extensive injury was caused by severe contusion and a lacerating wrench between the buffers of two railway carriages.

2. When, however, the extent of such damage is itself *partial*—not involving the whole substance of a limb—the supervention of profuse suppuration or gangrene is only proportionately *probable;* and the limb, therefore, *not* inevitably lost, nor the life surely perilled. The postponement of amputation until the *actual supervention* of either or both these conditions of disorganisation is the indication of pathology, and the warrant for non-interference by operation. *Secondary* amputation, if necessary, should be the rule of treatment observed, in order to give the limb *its* chance of preservation; the safety of life being provided for by *timely* amputation, under these circumstances. The question of amputation, therefore, and as primarily or secondarily, in compound fracture and dislocation, and thence in contused and lacerated wounds, *per se*, is determined by two pathologico-anatomical conditions; but they are significant only in proportion to the certainty or probability of their causative relation to the purely pathological, or *vital*, course and tendency of those conditions.

The proper *time* for the operation, as well as the question of amputation abstractedly considered, is implied by the terms "primary" and "secondary;" but in relation to gangrene, this question is specially determined by the natural formation of a line of demarcation between the living and dead parts—another parthological condition—and which indicates also the *amount* of amputation appropriate. The operation is most advisable *after* the formation of that boundary line, and *above* it. The foregoing rules respecting amputation refer exclusively to *purely* traumatic gangrene.

Spreading traumatic gangrene has a different relation to amputation, in accordance with its pathology. Removal of the exciting cause by amputation, without delay, is indicated; and at some height above the seat of injury, no line of demarcation forming to notify the time and part for amputation.

Various rules, as to the urgency of amputation, are laid down in Surgical works, having reference to *subordinate* forms of *injury*. These rules are not, in my experience, the expressions of a sufficiently accumulated series of observations as to the natural course and tendency of such cases to recovery, or to suppuration and gangrene; and they overlook the unknown capabilities of the reparative power in different individuals. No Surgeon can positively determine whether amputation should be performed in a doubtful case—guided by this or that extent of injury, and in this or that individual. Misled by *à priori* considerations of the particular pathologico-anatomical condition of injury—and I might add the same of disease—*clinical* observation is precluded, and thus doubtless many limbs are sacrificed surgically which might otherwise be saved.

Not one of the forms of injury alluded to is found to be invariably followed by an adverse or fatal issue; not one of the considerations commonly urged in Surgical works as to the imperative necessity for primary amputation is infallible. If, then, *exceptional* cases are discovered, from time to time, by the advancing study of pathology, the question arises—not that of amputation—In how many more similar or analogous cases might not limbs, hitherto sacrificed surgically, have been saved and be preserved in future?

Here I must conclude this series of communications. I have endeavoured to trace the *laws* of pathology so far, and the threefold *characteristic* indications of treatment derived from that source—in point of time, kind, and least amount of assistance; illustrating them by *typical* forms of injury, which acquire the highest degree of practical importance in virtue of the laws they represent. As contrasted with the blind gropings of empirical treatment, the Surgeon will experience a guiding *power*, the admonitions of which at the bedside will at length come to be applied, under the circumstances of different cases, with the utmost delicacy and tact.

TWO CASES OF LOCOMOTOR ATAXY TREATED WITH NITRATE OF SILVER.

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A SPARELY nourished, very intelligent, old-looking man, aged 44, residing in Plymouth, became a Dispensary patient in January, 1866. He was quite blind and confined to his bed, and gave the following account of himself:—About four years ago, he first noticed a weakness of his sight, which gradually increased, until it disappeared first in the right eye and then in the left. His eyes were at the time examined with the aid of the ophthalmoscope, and he was told that the optic nerves were excavated, but without any other morbid condition. About eighteen months ago he began to suffer from shooting pains through his limbs and body, followed by slowly increasing weakness of the lower extremities, until recently he has been compelled wholly to keep to his bed.

The following were the symptoms observed:—His skin, pulse, tongue, bowels, and urine were apparently natural. He complained of constant pains of a shooting or darting character through the limbs and body; these pains were of equal severity during the day and night, and such as almost entirely to prevent sleep. There was almost complete loss of sensation of touch in the feet and legs, though temperature was well preserved. The muscular power of both limbs was very considerable, and he was able powerfully to resist flexion and extension, so much so as to render the production of those movements impossible without his consent.

On attempting to make him walk, the loss of co-ordination of movement was very marked; his legs flew about in all directions, and unless supported, he fell. He stated that the ground felt as if composed of round balls.

The case had been considered as one of paraplegia with rheumatism, and the ordinary remedies for that complaint had been administered without relief to the pain. Nitrate of silver was now given in quarter-grain doses three times daily, with the effect of producing immediate and complete cessation of pain. At the end of six weeks the remedy was left off, for fear of producing discoloration of the skin; and not only was he quite free from pain, but his power of walking had in some measure increased. Almost immediately, however, after leaving off the silver, the pain returned as severely as ever; and after a fortnight's interval, at his earnest request, the medicine was recommenced, with again the effect of immediately curing the pain; and during the second six weeks he continued the treatment, he had not an hour's pain, though there was no further improvement in his power of walking. On once more stopping the silver, the pain again returned, though in a much mitigated form, so much so as to be quite bearable, and has not returned since with such severity as to require a renewal of treatment. When seen a few days since, he stated that the only time during his illness in which he had been quite free from pain was whilst taking the silver pills, and that though no essential improvement had taken place, yet the disease, which was previously steadily advancing, has since the commencement of treatment remained stationary.

The second case occurred in the wife of a labourer, aged 39, also residing in Plymouth. She came under treatment in June of last year, when the disease was in a much earlier stage than in the last instance. She stated that for the last two months she had been losing her power of vision, and was unable to see to read small print, or to do fine work. Soon afterwards she began to suffer from severe darting pains through her ankles and legs, not extending to the thighs. The pains were worse during the day than during the night, and were more severe in the right leg than the left; there was no tenderness to the touch; on the contrary, sensation was decidedly impaired in both legs, and she was unable to distinguish the number of fingers which touched her foot, even when they were placed very far apart from one another. She had been treated with alkalies and iodide of potassium, and all the acknowledged remedies for rheumatism, without effect. The peculiar character and position of the pain, darting as it did through the calves of the legs, and not in the bones or joints, led to a suspicion of the commencement of ataxia, which was confirmed by the history of impaired vision. Nitrate of silver was at once administered, with the result of immediately curing the pain. After taking the pills for three weeks, she was well enough to leave off medicine; and though the pain slightly returned, it was not sufficient to inconvenience her, and her sight has not further deteriorated.

These cases are recorded as confirmatory of the conclusions which have been arrived at by other observers of the extreme value of nitrate of silver in the treatment of ataxia, not only in relieving the pains, by far the most harassing of all the symptoms, but also in apparently arresting the nervous changes, and maintaining the disease *in statu quo*.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE BRISTOL GENERAL HOSPITAL.

THE Bristol General Hospital is situated at some distance from the Infirmary, and is a building of a much more recent date. It is built upon the bank of the river Avon, in close proximity to the docks, and from one side has capital ventilation, owing, however, to the plan on which it is constructed—viz., so as to form two sides of a triangle, with the entrance in the retiring angle; on the other side free access of air is denied, not only owing to the plan of the building, but also to its being situated in a confined courtyard. The wards are lofty and well lighted, but only from one side; to compensate for this deficiency on the other, the wall is perforated and pierced with air-shafts, which are connected with a sort of pit in the garden of the establishment. This air-pit does not seem, however, to receive much attention, for at the period of our visit, although the weather was fine, the bottom of it was covered with a layer of water, which, supposing that the pit was useful for supplying air to the wards—a supposition we are far from making—would scarcely prove beneficial to certain classes of disorders. The floors of the passages in the Hospital are of concrete; they do not look clean even when carefully washed, nor are they comfortable for the inmates. There has been much money spent on the building, but a good deal of it to little purpose. The out-patient department is also susceptible of improvement, for the space allowed for the patients' waiting-room is too small and confined, whilst access to the officers' rooms is somewhat difficult. As, however, an additional piece of ground has recently been purchased, it is to be hoped that some at least of the defects referred to may be remedied. One good feature in this Hospital is the possession of two large, airy, and well-lighted day rooms for the use of convalescent and other patients able to leave their beds. In the present report we shall confine ourselves for the most part to the Surgical practice to be seen in this Hospital, a considerable proportion of the 130 beds the Hospital contains being set aside for Surgical cases.

Under the care of Mr. M. Clarke we saw one or two cases in which the ankle-joint had been excised by sawing off the lower end of the tibia and the upper part of the astragalus. Out of four cases so treated three did remarkably well.

A somewhat rarer operation is frequently performed by Mr. Coe—namely, excision of the os calcis—he says with generally remarkable success. Whatever may be the reason of it, we are told that disease of the astragalo-calcaneal ligament is extremely common in Bristol, much more so than we have elsewhere seen it. It ordinarily arises from twisting the foot, an event not at all unlikely to occur in a place as hilly as Bristol, more especially when the ground is at all slippery. The disease commences with swelling between the heel and the ankle-joint two or three lines below the malleolus externus, but there is no pain on flexion, although it may readily be excited by pressing on the heel, and still more easily by twisting the calcaneum on the astragalus. If neglected at an early stage, these injuries most frequently necessitate amputation at the ankle-joint, an operation to which most of the Surgeons here are partial, preferring it to amputation higher up. Sometimes, however, excision of the joint deeper than that we have described as being performed by Mr. Clarke will succeed. When taken sufficiently early, nothing does so well as excision of the os calcis, and if, after recovery, the inside of the heel of the patient's boot is padded with cork, wonderfully little difference in the gait is noticeable.

A good many children are admitted for necrosis of some one or other of the bones following or simulating fever. In such cases the bone is removed, but the periosteum left, which leads to the speedy reparation of the dead tissue.

Under Mr. Lansdowne we observed a case in which the knee-joint had been excised. The wound was perfectly healed, but the limb was an inch and a half shorter than the other. In several other cases Mr. Lansdowne had obtained similarly satisfactory results, so far as the healing was concerned.

Chloride of zinc is extensively used in this Hospital. Thus, in a case of scrofulous bubo, where the pus was burrowing in every direction, the swelling was opened, and a solution of chloride of zinc injected, a plan of treatment speedily followed by beneficial results. Again, a man came into Hospital; he had fallen from a height, and had a very severe compound fracture of his thigh, the bone being badly comminuted. A counter opening in the dependent part was made, and the chloride of zinc injected into the wound. On this plan the injury speedily got better.

Mr. Coe has performed a good many times the operation of excision of the wrist, generally with great success. One of these cases was under treatment at the time of our visit. One patient was a child of a strumous habit, who had suffered from a severe injury to the part. It perfectly recovered the use of its hand, but died some time after of phthisis. Another case was that of a woman, who had already had her elbow-joint excised, and had almost recovered when she was seized with acute inflammation at the wrist. Her health was bad, and it was suggested that she should have her arm amputated above the elbow. Mr. Coe, however, determined to excise the wrist-joint. This was done, and she recovered. A third case was one of abscess and diseased bone; here also recovery was perfect. A fourth was a boy who was kicked by a cow on the wrist, and had almost recovered the use of the joint when he left Hospital. The last instance we shall refer to was in a strumous boy, who had received some slight injury, after which disease of the joint was rapidly developed. It was removed, but an abscess followed near the shoulder. His health was bad, and he was sent home to recruit, and was at the time we speak of still under treatment. We remember the first case of excision of the wrist-joint we ever saw, and its consequences are somewhat vividly impressed on our minds by the pertinacity of the patient in demanding pecuniary aid from the Surgeon who performed the operation. Here the joint was laid open by a semilunar incision on the back of the hand, cutting across the extensor tendons, and of course rendering the hand useless. Again, the plan of making two incisions along the ulnar and radial aspects of the wrist was advised, but the operation was not easily performed. A third plan suggested was to make two incisions—one on the back and another on the front of the wrist—and to keep the parts asunder by spatulæ while the diseased bones were being removed. Mr. Coe's incisions are, however, we think, superior to any of these: he makes one cut from about half way up the fifth metacarpal bone for two or three inches up the ulna, another on the dorsal aspect of the wrist over the upper end of the second metacarpal, obliquely over to the radial side of the second extensor of the thumb, and a third in the palm an inch and a half long over the end of the metacarpal bone of the thumb and the trapezium, for the purpose of removing this last bone, provided it shall be necessary. In this way removal of all the diseased portions of bone is easily and speedily accomplished.

In this Hospital fractures of the leg are usually treated without mechanical apparatus. The injured limb is bent and placed on a pillow till the swelling has subsided; then it is placed in some permanent apparatus, a glue, gum, or starch bandage. Senile gangrene sometimes makes its appearance in the Hospital, especially in cold weather. Mr. Clarke treats it with a strong solution of iodine painted over the whole foot. Sloughing may follow, but the diseased parts soon get well. Pyæmia is not of common occurrence here; when it does appear, Mr. Clarke treats it by large doses of turpentine instead of by quinine, as is most frequently done. In the dressing of wounds also we observed that tow was always used instead of sponges, a plan which, we think, ought to be strongly recommended. Those who are sometimes troubled for a mode of varying the treatment of gonorrhœa might probably have recourse to a prescription of Mr. Clarke's with advantage. This consists of the bismuthum album (the trisnitrate of bismuth), ten grains to the ounce of water, a little glycerine being added to keep it suspended. Being a solid body suspended in a somewhat dense fluid, the bismuth is more likely to be retained in apposition to the inflamed parts than a substance more perfectly soluble would. It is said to yield most excellent results.

Under the care of the same gentleman there was lately a case of very great pathologic interest. The patient, a schoolboy who was growing very fast, fell and broke his arm. The fracture healed perfectly; no callus was perceptible, and the boy was in good health. He returned to school, but by the stimulus of an offered prize he was made to work too hard; his health gave way, and he was again brought to Mr. Clarke. On examination the bones were found to have become perfectly disunited.

All the cases of uterine disease at the Bristol General Hospital are attended by Dr. Swayne, the Physician-Accoucheur. The appointment of such an officer was first made in 1854, at a time when a new building was contemplated and additions were made to the Medical staff, in order to meet the requirements of an increased number of patients. By far the greater number of cases which come under the care of the Physician-Accoucheur attend as out-patients, but he has always a few beds at his disposal for those which are of a more urgent character. Leucorrhœa and prolapsus uteri are found to be the two most frequent ailments, and together form nearly half of the whole number under treatment. Leucorrhœa occurs in the proportion of 261 cases, and prolapsus uteri of 216 cases, in 1000, so that more than a quarter of the whole number are cases of leucorrhœa. This disease is usually treated by tonic and astringent medicines, and, if the discharge is not vicarious of the menses, by the uterine douche, and astringent injections and medicated pessaries of cacao butter. If the leucorrhœa does not yield to this treatment, and especially if it is attended with unusual pain in the back on exertion, and a discharge which is yellowish, brownish, and occasionally streaked with blood, an examination with the speculum is made, to ascertain if there be any complication, such as ulceration of the os uteri, etc. Prolapsus uteri, so common a disease amongst the poor, is, according to Dr. Swayne's experience, rare amongst the upper and middle classes, no doubt from better nursing and greater care after confinement. Prolapsus uteri is treated at the Hospital in much the same way as vaginal leucorrhœa. The use of pessaries is avoided in all but the more obstinate cases. When they are employed, the simplest kinds are preferred, such as ovoid pessaries of india-rubber stuffed with horsehair, which can readily be removed by the patient at night and reintroduced in the morning. A few bad cases of prolapsus have been successfully treated in the Hospital by the removal of elliptical portions of vaginal mucous membrane, and approximating the cut surfaces by sutures. The diseases next in the order of frequency are menorrhagia, congestion, inflammation, and ulceration of the os uteri, amenorrhœa, carcinoma uteri, gonorrhœa, and syphilis. These occur severally in the proportions of 99, 70, 33, 31, 28, and 24 in 1000. The small number of patients with the two last diseases is accounted for by the fact that most of the venereal cases come under the care of the Surgeons. Congestion, inflammation, and ulceration of the os uteri, are mostly treated by scarification of the os (which, when properly performed, is found to be much less troublesome and quite as effectual as leeching), by caustics, and by the uterine douche. The caustic employed is nearly always nitrate of silver; when anything stronger is required, the acid nitrate of mercury or chloride of zinc is used; but it is very seldom necessary to have recourse to the potassa fusa. If there is much pain, the belladonna pessaries are used. Dysmenorrhœa is, according to Dr. Swayne's experience, a much more rare complaint amongst the poor than amongst the wealthier classes. To relieve the pain Indian hemp is usually given, and belladonna pessaries and chloroform liniments employed. In some cases, when there is mechanical obstruction to the menstrual flow, the cervix uteri is divided and dilated by seaweed tents. Dysmenorrhœa occurred in only 14 cases out of 1000. Amongst the less common complaints of the uterus, retroversion and anteversion occur each in the proportion of 11 in 1000, these diseases being apparently not so common amongst the poor as amongst the wealthier classes, with whom, according to Dr. Swayne's observations, they are met with as frequently, or even more so, than prolapsus uteri. Although they sometimes occur in virgins, they most usually are produced by premature exertion after miscarriage, and by imperfect involution of the uterus. They are mostly treated by rest in the recumbent posture, scarifications, and the uterine douche after the uterus has been replaced by the sound. Mechanical supports are seldom resorted to, especially in anteversion. In retroversion an ovoid ring of gutta percha, resting anteriorly on the back of the subpubic ligament and encircling the os uteri posteriorly, has in some cases answered very well. Polypus uteri, in most of the instances met with at the Hospital, has been treated by excision, and always with favourable results.

The use of the ligature has been abandoned ever since a fatal case of uterine phlebitis occurred after an operation with Gooch's double canula. The wire-rope écraseur, as recommended by Dr. Braxton Hicks, is now, however, preferred to all other means. Cauliflower excrescence of the os uteri has in three instances, where it appeared to be very limited in extent, been treated by ablation of the os, in two of these by excision, and in one by the écraseur. Neither of these cases, however, was ultimately successful. In the first two the result at first seemed encouraging, but after some months the disease returned in the body of the uterus, and ended fatally. Death from peritonitis ensued soon after removal of the os by the écraseur, and it was found at the post-mortem examination that a small portion of the peritoneum, where it is reflected on the posterior wall of the vagina, had been nipped by the chain of the instrument. In cases where, from the extent of the disease, excision was inadmissible, the use of the actual cautery was found to be the best means of retarding the morbid growth and restraining the copious hæmorrhages. The Cæsarian operation has been performed once at the Hospital (in 1862), in the case of a woman who was a dwarf, scarcely four feet high, 48 years of age, and with a pelvis the antero-posterior diameter of which was only one inch and four-fifths. Although the operation was performed early, and with every care likely to insure success, the woman died of peritonitis on the third day afterwards. The child survived, and is now living. The case was admitted under Dr. Swayne, and through his advice the operation was at once performed, without any previous attempt being made to deliver by craniotomy. Mr. Coe, the senior Surgeon, was the operator, as, in accordance with the rules of the Hospital, operations of this kind requiring the use of the knife are always performed by the Surgeons. A full report of this case appeared in No. V. of the *Obstetrical Transactions*.

Finally, in thanking all the officers of the institution for their kindness, we would specially refer to our indebtedness to Dr. Siddall, the House-Surgeon of this Hospital.

THE HOSPITAL FOR DISEASES OF THE SKIN (BLACKFRIARS).

NOTES OF VARIOUS CASES.

(Cases under the care of Mr. HUTCHINSON.)

Severe Psoriasis Palmaris et Plantaris not of Syphilitic Origin.—October 21.—A waterman from Southend, aged 18, presented a very marked example of psoriasis of the palms and soles without any recognisable cause. He had been liable to it—indeed, had suffered from it almost continually—for five years, so that acquired syphilis was most improbable. He did not present any indications of inherited taint. The disease had never attacked other parts. It covered the palmar aspects of the hands and fingers, and almost the whole of the soles of the feet. There was more of scaly crust than is usually seen in psoriasis of these parts, and there were as usual deep fissures at parts. The young man was red-haired and florid. He considered himself in good health. The hands and feet were, he said, much more troublesome at some times than others, and were much irritated when wetted with salt water. The eruption had first shown itself after an attack of fever. He was the youngest of a family of six, all the rest being healthy.

Mr. Hutchinson directed attention to the fact that it occurred symmetrically, and on both hands and feet with equal severity, as making it certain that the cause was not merely local. He also adverted to the general belief that most cases of psoriasis palmaris were of syphilitic origin, and stated that, although a majority were so, yet that not a few had no such history. Still he admitted that in the cases in which such history could not be proved, it might possibly exist if the truth could be arrived at. Thus the recognition of inherited syphilis, although easy in some instances, is impossible in many. Although the subject of the present case had neither notched teeth nor deformed physiognomy, yet he might for all that have a remote taint of syphilis in his blood.

Psoriasis Palmaris in the Secondary Stage of Syphilis.—Another case, which was admitted the same day, showed psoriasis palmaris in direct connexion with syphilis, and occurring also amongst the secondary symptoms. More usually it appears late, either when the secondary symptoms are disappearing or long afterwards; it may be many years after the primary disease. In the present instance the patient is a man aged 35, who contracted syphilis about three months ago. He has been attending the Hospital for papular rash with condylomata. Two weeks ago scaly patches appeared in both palms, and he now displays the condition of peeling of the epidermis, slight fissures, etc., so well known under the name of Psoriasis Palmaris. Mr. Hutchinson directed especial attention to the fact that there was nothing peculiar in the condition of the patches, no erythematous margin around them, nothing by which their directly syphilitic origin could have been recognised. He added that he had not unfrequently seen these patches appear in the secondary epoch of syphilis, although they were, undoubtedly, much more common at later periods.

On October 28, a woman who presented herself with secondary syphilis, gave another example of psoriasis palmaris occurring at this stage. She was just getting well of the general rash, but both palms remained congested and scaly. The beginning of her symptoms was about five months ago. The patches had no deep fissures, nor were their edges well defined, the eruption being, in fact, more superficial than in the more chronic class of cases.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 16, 1867.

PREVALENCE OF BRONCHITIS.

That the advent of winter should be invariably signalised by such an amount of derangement of the delicate machinery by which the respiratory process is carried on, as to give a marked impulse to the general death-rate of the population, is a matter which is well worth a little attention; because, of the long catalogue of preventible diseases, few admit of a greater amount of modification by the simplest measures of precaution than do those affections of the bronchi and lungs from which—exclusive of phthisis—an average of about 14 or 15 per cent. of all the deaths in England annually results.

In London the weekly publication of the details relating to the movement of disease enables us to follow, step by step, the effect which is produced by variations of temperature; and thus we see that a sudden access of cold in the middle of September was immediately followed by a rise in the deaths from lung disease, and that a further depression of the thermometer has of late corresponded with a further augmentation of deaths from the same cause. The deaths from bronchitis were 39 in the week ending September 21, when the mean temperature was 54·8°; in successive weeks that disease killed 67, 74, 90, 118, 121, 127, and last week 154 persons—the temperature having averaged 53·0°, 48·2°, 43·7°, 52·5°, 52·1°, 48·5°, and 41·9°. The intimate relation between bronchitis and cold is sufficiently well authenticated to be reckoned as one of the "laws of mortality," fluctuations in the regularity of the series being in all probability due partly to inexact diagnosis, and partly also to the fact that the statistics are based on the *registered* cause of *death*, which may differ from the primary and exciting cause of illness: an efficient system of *registration of disease* would obviate this latter source of not infrequent fallacy.

As regards the whole country, the means for tracing in detail the effect of atmospheric changes on the movement of disease are not ready to hand; but, speaking generally, it will be found that the years of greatest mortality from lung disease have been those in which the average temperature of the air was lowest, and *vice versâ*. In this respect, there is a very marked difference between the tubercular and inflammatory diseases; for while the mortality from phthisis exhibits no constancy of ratio to temperature, and has, on the whole, declined in England, the death-rate from bronchitis closely follows the temperature, but shows a tendency to increase.

Bronchitis destroyed in England 36,428 lives during the year 1865—the last for which we have returns—and the ratio to the population was 1754 per million; in the five years 1860-64, the average annual ratio was 1658; in the five years 1855-59, it was 1359; in the five years 1850-54, it was 1016; and in the three quinquenniads, taken in the aggregate, it was 1344. The mortality from pneumonia averaged 1244 in the fifteen years, as compared with a reduced rate in 1865 of 1083. Phthisis shows a diminished fatality from a fifteen years' average of 2675 to 2587 in 1865.

Some valuable statistical data as to the age at which bronchitis is most fatal are given by Dr. Farr in the Registrar-General's Twenty-sixth Annual Report. It is there shown that during the early stages of infancy and childhood the mortality is very high from this disease, but somewhat less so among girls than boys. From the age of 5 to 45 years both sexes are comparatively free from its effects, but afterwards it becomes rapidly more and more fatal, until in the period between 75 and 85 years of age it kills 15 or 16 per 1000 of the population. Phthisis and bronchitis together account for an average annual mortality of 4·03 males and 4·08 females per 1000 of each sex living; but whereas bronchitis kills children and old people, phthisis finds its victims between the ages of 20 and 60, and is more fatal to women than men. Another point to be kept in view is that the ratio of increase in the mortality from bronchitis is greater in early life than in the advanced ages.

We admit that between phthisis and bronchitis there is the obvious chance of confusion arising both from changes of nomenclature and imperfect diagnosis; but the practical teaching of the foregoing statistics is not likely to be affected in any material degree by discrepancies which are probably not numerous, and from which each successive set of returns is—it may be hoped for the credit of our Profession—more free than its predecessor.

Dr. Farr asks: "Is the effect of the treatment by cod-liver oil in phthisis visible in the returns?" And again, "What has led to the recent increase of mortality from inflammation of the air-passages and air-cells of the lungs?"

In a pamphlet recently published, Dr. Charles Parsons (a) answers to the first question that the abated fatality of phthisis must be due to a "more enlightened method of treatment;" else, from the hereditary nature of the disease, the multiplication of phthisical germs, proceeding *pari passu* with the increase of population, would naturally have caused an augmentation of the death-rate. The deduction is certainly logical, and, *certes*, we have no reason to object to one so gratifying to the Medical *amour propre*.

We look upon bronchitis as one of the most preventible of human diseases, inasmuch, at least, as it is due in a large measure to carelessness and ignorance. Among young children, the most frequent source of the malady is exposure to cold and damp; and we may remark that the Hospital out-patient system often operates unfavourably in respect of the poor by requiring children suffering from incipient or developed ailments to be taken out of doors in all weathers without adequate external protection against change of temperature. The value of home attendance in bronchitic cases can hardly be over-estimated.

Dr. Parsons thinks that the mortality from bronchitis may be reduced (as that of phthisis has been) "by the concentration of Professional thought on the subject;" but when he comes to enumerate the causes which induce the prevalence of bronchial complaints among adults, he cannot help but illustrate the large extent to which Medical men are powerless in the matter. As regards *occupation*, for example, Medical science may continue to point out, as it has done for a wearisome length of time, that the inhalation of irritating particles floating in the atmosphere of factories, and sudden transitions from overheated workrooms to the cold atmosphere without, are obnoxious to the respiratory system, and may suggest means for reducing these dangers to a minimum. But, after all, the real practical lesson will only be fruitful in this as in other respects when the factory hands and their masters have thoroughly comprehended the magnitude of the evils they now are little careful about—it is a matter of time and education, for there is no royal road to a knowledge of the laws governing human life.

The catalogue of "social indiscretions" is long, and there is no question that among them are to be found fruitful causes of many other diseases besides bronchitis. Both sexes are equally to blame in this respect; but there is certainly not one indiscretion in Dr. Parsons' list which has not been denounced over and over again in anything but measured terms by the Profession. Hurried meals, long fasting, work at high pressure, sudden alternations of temperature without corresponding changes in the amount of clothing, exposure to wet or to cold winds—all these, whether resulting from the exigencies of business or the dictates of fashion, are known and declared to be in the highest degree prejudicial.

But what is to be done to make people careful of their lives? The answer must be for the poor and rich alike—Teach them the laws of health, of which nine-tenths are utterly ignorant. Public hygiene must be as widely taught as the rule of three before any great and really marked abatement in the preventible disease, which yearly exacts so heavy a tribute, can be looked for. Legislation may do something, but it must be education which will bring about such an appreciation of the relation between the *mens sana* and the *corpus sanum* as will make a lasting impression on the death registers.

With a climate so uncertain and variable that in the middle of winter we get often a summer or autumnal temperature, and in July and August extremes of cold, nothing can be clearer than the necessity for constant watchfulness in the matter of clothing, for those especially who have not accustomed their skins, by the regular use of the "cold tub," to bear cold with impunity. And when we get, as we fervently trust we may soon, an edict prohibiting the pollution of the air with the villanous smoke which now hangs over our cities and towns, enwrapping and poisoning the people with its breath, bronchitis will receive "a heavy blow and sore discouragement," such as, we may predicate, will lessen its fatality one-half at least.

(a) "On the Prevalence of Bronchitis in England, and its Causes." By Charles Parsons, M.D.

THE SANITY OF BORDIER.

Our readers must be nearly tired of this subject. Week after week it has been discussed in our columns. We have had letters from Professor Laycock, embodying with characteristic frankness, and expressing with characteristic energy, Professor Laycock's well-known opinions; from Dr. Wood, a Physician who has acquired a right to be heard on such matters; and from one of the most successful investigators and highest authorities in the department of mental disease, Dr. Maudsley. But it is time the war of words should cease, and we shall, therefore, attempt to sum up the case as concisely as we can, making what comment we think necessary as we proceed. To the system of scientific advo-

cacy we are altogether opposed. A Medical man ought always to be impartial. It is true that differences of opinion may arise, and doubless will arise, but for all that the sight of two men, each eminent in his own way, swearing completely contrary to each other—merely, it may be, from the accident of having been retained by a certain party—is far from edifying. Fortunately, the case of Bordier did not present this disagreeable spectable, and the dirty linen of the Profession has this time been washed in comparative privacy; still, the differences of opinion which have been elicited in our columns would, to a certain extent, justify the doubtful confidence reposed by the public in those whom they irreverently style "mad-doctors."

We have all along held, and still hold to our opinion of the sanity of Bordier at the time he committed the murder for which he suffered. Professor Laycock has treated us to a good many general remarks on the subject of insanity, and on the value of confessions by criminal lunatics, but he has carefully avoided discussing the case of Bordier as a mere matter of clinical history, if the term may be employed. Dr. Wood has also told us of a lunatic who had fistula in ano, but that, we submit, is wide of the mark. The question may be one of definition, for the evidence which satisfies Professor Laycock of the insanity of Bordier is very far from conveying to our mind an impression similar to that we are accustomed, either in civil or criminal practice, to form of insanity—in other words, whom he calls insane we call sane. Let us therefore examine the evidence brought forward in support of the theory of Bordier's insanity—a thing which Professor Laycock and his fellow-advocates have curiously avoided. This may be summed up as the deed itself—for all atrocious murders are now-a-days received as proofs of insanity—certain letters written by the prisoner, and the evidence of Mr. Simpson. The first of these we shall simply pass over, leaving those gentlemen who accept the theory of Bordier's insanity to make the best or worst of it as suits them. With regard to the letters, although repugnant to English notions, they are such as have been written by scores of excitable foreigners whom nobody would ever call insane; and we would submit that, had not the murder followed in their train, no one would ever have looked upon them as more than the vague threats in which moody men delight to indulge. As to Mr. Simpson's evidence, he saw Bordier for half an hour just after he had committed a most deliberate murder, which nevertheless had by his own statement severely shaken his nerves, and examined him evidently with preconceived notions as to his insanity—a proceeding in which we think Mr. Simpson certainly erred. He never saw the man again until the trial, when he came forward to bear testimony to the prisoner's insanity. No other witnesses were called to do so—a fact which, seeing that the opinions of the two gentlemen under whose observation Bordier had been since his arrest were entirely adverse to this theory, conveys to our mind an impression of weakness, to say the least of it.

If, again, we come to investigate the nature of Bordier's supposed insanity, we encounter another difficulty; for, dealing with generalities, Professor Laycock has carefully abstained from telling us what form of insanity he supposes the unfortunate man to have laboured under, beyond making use of the vague term melancholia. He, however, would seem to draw some distinction between the state of Bordier's mind at the time the deed was committed, and its condition at a subsequent period when under observation. Are we then to suppose that Professor Laycock holds to the belief of Bordier's having acted under a sudden and uncontrollable impulse? Surely he cannot believe that this position is tenable, when he reflects that Bordier had brought the knife home from his work some time before for the express purpose to which it was applied, and put off the execution of his design until the last moment. He was no epileptic maniac who, in a moment of frenzy, wreaked his anger on whoever was nearest, and when he came to himself knew nothing of what had happened. True, the man's spirits were depressed, and the invulnerable authority of a lady, the matron of a Hospital for fistula, was invoked, to show that low spirits were characteristic of fistula. It is a curious form of disease which contributes to high spirits, and we venture to say that a man labouring under a good attack of dyspepsia will proclaim himself as miserable as any one could desire; yet we could not hold him innocent were he to cut his wife's throat. But perhaps we shall be told that low spirits from fistula are the only kind which secure this desirable immunity.

In deciding whether a crime was committed under a sane or an insane impulse, we were taught, when we went to school, to take the question of motive into consideration. Were we to do so in this case, the weight of evidence would certainly tend towards the side of sanity. Again, the law says that the evidence of insanity lies in delusions. We do not find any in this case, although Mr. Simpson contrived to invoke a dummy for the occasion. It was no delusion that the man was in very bad health, and terribly out of pocket; that the woman with whom he lived, tired of this state of affairs, was about, on the very day the murder was committed, to leave him for a partner who was better off, and to abandon him with three helpless children on his hands. We can see no delusion in all this, and many a man about whose sanity there has never been a doubt has yielded to smaller temptation. But if there is one thing more than another which has been overlooked in this discussion, it is the simple facts of Bordier's case, partly because they were not completely brought out in the report of the trial; partly, perhaps, because the parties to the discussion preferred vagueness to accuracy, generalities to particulars. We shall tell the simple, but horrid, story of the murder of Mary Ann Snow, and of Bordier's behaviour in the whole matter.

Bordier had long suffered from fistula, but during the whole period of his sufferings he showed no tendency to hurt those who were near and dear to him—no homicidal impulse. His disease got no better, but rather grew worse, and he was forced to enter a Hospital for the relief of his painful malady. While Bordier was in Hospital, Mary Ann Snow, who had got tired of the squalid life of poverty she led with Bordier, now unable to keep her in the way she had been accustomed to be kept, met another man, who promised better things. It was accordingly arranged that she should leave Bordier to live with this man, and of this Bordier was aware. According to the evidence put in court, the two had quarrelled, or, at least, had words, about this very man, and it was finally arranged that she should leave the unfortunate Bordier the very day on the morning of which the murder took place. Bordier could not bear to part with the woman and to see the consequent misery of the children; so he resolved on putting all of them out of the world. To this end he brought home the sharp knife already mentioned, but beyond that point he could not for a time proceed. He had determined on his course, but he could not screw his courage to the sticking point—*he even went one evening and had four glasses of rum and water, that Dutch courage might enable him to do the deed, but he could not.* Finally, at the very last moment, when he was about to leave for his work, in the day Mary Ann Snow had settled to leave him; he determined to do it; when he returned she would be no longer there, and would be out of his power. He hesitated no longer, but cut her throat. Even then he did not find it such easy work as he had fancied; the sight of blood unnerved him, and he left her before she was dead. He next tried to kill his child, but beyond putting his hand on her forehead, he could do no more; his heart failed him. Every one knows the rest. While in prison no one in connexion with him observed in him the slightest taint of insanity, and he went to the scaffold, not rejoicing in death, but as a man who faces the inevitable, who fears death, but walks calmly to the scaffold.

We appeal to all candid-minded men if in the above history

there is any trace of insane delusion. Do mad men require glasses of rum and water to nerve them for an insane impulse, and after all fail in getting it up? If all murder be the result of insane impulse, this may be granted, but that, we should fancy, few would be willing to concede. We have all along spoken with a full knowledge of Bordier's crime; but our direct statements have been met by a series of generalities. We here conclude the subject. Now that we have again stated the plain unvarnished facts of the case, we leave sensible men to judge for themselves. Our opinion has already been given.

"THE FEVER OVER"(?) AT ST. THOMAS'S.

Fresh from all the horrors of house- and ship-wreck, in dreadful uncertainty as to the amount of life and property destroyed by the frightful tornado that swept over the Virgin Islands on October 29, the messenger did not forget the plague that had gone before. Its departure seemed a drop of comfort amidst the ruin and desolation with which Nature, in her fury, had bestrewn the ill-fated island of St. Thomas. The sentence "the fever over" was indeed a feeble ray of light shrouded in the tale of terrible disaster that reached us on Thursday, the 7th inst. In the midst of their new trial the inhabitants may be thankful that they have not to contend with their old enemy at present; whether this source of consolation, however, is lasting, remains to be seen.

What has conduced to make these Virgin Islands so horribly unhealthy? They have been known to us through Columbus for more than 370 years, and at one time were so attractive as to tempt emigrants from Europe to settle there, who multiplied and throve. In those times, and for many years after, the island of St. Thomas was the very reverse of what it is now; for now none of its original attractions remain for the inhabitants, its harbour alone inviting the ships of the world there; and the fact of the port of St. Thomas being the emporium for the commerce of the coast line of the Atlantic and the Gulf of Mexico is the simple inducement that ties the inhabitants to the spot.

The geological foundation of the Virgin Islands is volcanic, which, in the island St. Thomas, forms a mountainous ridge through its longest diameter; this ridge slopes to the shore, and behind the town and port forms an amphitheatre, the average height of which is about 1000 feet above high water-mark; the highest point, Signal-hill (to the left of the town as you approach it), being 1500 feet; the height of Louisenhoi, behind the town, 820 feet; and Wintberg Peak, 960 feet to the extreme right. The soil is sandy in some districts, and clayey in others. In 1826 even the island of St. Thomas is described as having "a soil well watered and fruitful," and "forests containing many useful trees, such as mahogany and fustic." Well would it have been if the greed of man had spared what cannot be restored. The retribution, however, has been great, and will continue; for the fever is not over—it will happen whilst human beings congregate in that spot. The first evil that fell upon the inhabitants of this once well-wooded and fertile, but now sterile island, was a deficient water supply, which followed the cutting down of the timber, for then was the soil laid bare to the full force of the sun's rays, which scorched and quickly dried it up; therefore it is not to be wondered at if the island is described (as it was in 1854), in a report to the Sanitary Commission of New Orleans, as having no rivers, creeks, springs, swamps, or pools of water; or that the questionable beverage, cistern-water, was the only kind used in the island. The average amount of rainfall, however, is 65·06 inches, but being wasted by exposure on the bare and treeless land, instead of being husbanded by the shade of groves and forests, it forms only a scanty supply, and is obliged to be hoarded by the inhabitants in cisterns. We know what cisterns are in our own city; what must they be in the tropical town of St. Thomas?

The reckless destruction of trees has taught colonists many a severe lesson, but they still persevere in it, and will do so, so long as money can be got by it. The fair island of the Mauritius, and many more, have suffered from the same cause. We have considerably modified the climate of our own country by felling timber and draining; we also must take care that we do not go too far. If such an island as St. Thomas is so valuable as a harbour and a point of commerce, then certainly some provision ought to be made by those countries interested in its welfare, against its being rendered pestilential by the policy of the inhabitants. It was a wise clause in many an old English title-deed, happily still carried out to the letter on some estates, that provided the planting of three young trees wherever one was cut down. The cynic laughed at the old man who was planting, saying that he planted trees for his posterity to enjoy them. His sneer and his gibe would be better bestowed on the thoughtless colonist who, for his present gain, leaves his successor a heritage of drought and disease.

THE WEEK.

TOPICS OF THE DAY.

The inquiry into the state of the Farnham Workhouse commenced on Wednesday. Mr. Lambert and Dr. Edward Smith are the Commissioners appointed by the Poor-law Board to investigate the charges made against the management of the Workhouse by Drs. Anstie and Stallard, the visitors who reported on the state of the Workhouse in the *Lancet*. The chief witness examined on Wednesday was the only paid nurse of the Workhouse, Jane White. It must be confessed that her evidence strongly supported the charges of uncleanliness, harshness, and want of decency brought against the management of the Workhouse. But although this reprehensible state of things was constantly before her, it appears that she never complained to a guardian or to the Poor-law Inspector. We must wait, however, until the inquiry is completed before we express any opinion on the evidence. There is no doubt that a thorough investigation will take place, and that the verdict of the Commissioners will be a just one.

The first meeting of the Royal Geographical Society, which took place on Monday evening last, was of considerable public interest from the amount of information given by various speakers on the subject of Abyssinian travel. Mr. Clements Markham, the geographer of the present expedition, had compiled an account of the early Portuguese embassies to Abyssinia, which was read by the honorary secretary. From Mr. Markham's account it appears that the detention of such Europeans as are unlucky enough to be entrusted with missions to the Abyssinian monarch is a stereotyped policy. In 1520 an embassy was detained six years, and the Physician and Secretary who accompanied it were kept much longer, and only allowed to return when the Negus David wanted the Portuguese to assist him against the Moors, who had invaded the country. Sir H. Rawlinson declares that, so far from Abyssinia possessing an unhealthy climate, it is one of the healthiest countries in the world—a statement which the British public will gladly see confirmed. He, in fact, proposes that some of its high lands should be utilised as a sanatorium for India. The antiquary who will accompany Sir Robert Napier's army is, we believe, Mr. Deutsch, of the British Museum, the reputed author of the article on the Talmud which has mainly contributed to sell three editions of the current *Quarterly*.

Abyssinia also furnished a topic for the Ethnological Society on Tuesday evening. Mr. Crawfurd furnished a paper for the occasion, founded on a report, dated 1854, by Mr. Plowden, formerly H.M. Consul at Massowah. This gentleman had been personally acquainted with King Theodore. He described the high lands as salubrious, but the valleys at certain seasons are the haunts of endemic fevers. Amongst the Christian

Abyssinians two languages are spoken—the Teegré and Amharic—the former derived from the ancient Geez, the latter from the Hebrew and Arabic. The people speaking both languages appear to have Jewish blood in their veins. The whole nation, however, is described as barbarous, sensual, and non-progressive. The Portuguese introduced various arts, but they have made no progress. The men till the ground, but are too proud for other labour; the women, however, are more industrious.

Dr. Pollock has addressed a letter to the *Times* newspaper urging that the Contagious Diseases Prevention Act should be extended to the civil population. His arguments appear to us unanswerable. It should be remembered that legislation to check the spread of syphilis is not so much in favour of the guilty as of the innocent; for every advance of our knowledge of the disease proves more clearly how enduring becomes its hereditary hold.

The winter session at Edinburgh has opened well, nearly 600 students having enrolled themselves in the different classes of the University. The new Professor of Anatomy, Professor Turner, in his introductory address, offered a fitting tribute to the memory of Goodsir, and gave an interesting sketch of the fortunes of the anatomical chair since its foundation in the year 1705. Remarkably enough, during the space of 147 years, the chair of anatomy has only had four occupants—the three Monros and John Goodsir. All will wish that the new Professor may have an equally long tenure with his predecessors. Two of the Professors, Professor Tait and Professor Kelland, addressed their classes, in no measured terms of indignation, upon the subject of the Newton-Pascal forgeries. As the French Academy of Sciences have expressed their conviction of the spurious character of the documents which M. Chasles has produced, the controversy may be considered virtually at an end. Sir David Brewster, however, believes he has discovered the forger in the person of Desmaizeaux, a Frenchman who resided in London amongst the *savants* of the day, and was himself sufficiently acquainted with science to have been the author of such a correspondence. He was very poor, a free-thinker, and not very scrupulous, for on Anthony Collins leaving by will to Desmaizeaux some manuscripts in order that they might be preserved, the latter, wanting money, sold the whole for £50 to Collins's widow, by whom they were destroyed. Several passages in the forged correspondence also occur in Desmaizeaux's work, "Recueil de Diverses Pièces etc. par Leibnitz, Clark et Newton." And a large portion of the documents, including 120 letters from Newton and 88 letters and notes of Leibnitz, were in Desmaizeaux's house at the time of his death in 1745, and were sold by himself or his family to a collector of MSS. for £800. Altogether Sir David thinks that, morally and intellectually, Desmaizeaux was thoroughly fitted to be a literary forger and slanderer of Newton, whilst in all probability his ingenuity was stimulated by impecuniosity.

The smoke nuisance is attracting attention in Edinburgh, and our Scotch friends are just awaking to the benefits to health and cleanliness which would accrue from compelling manufacturers to consume their smoke. We are glad to hear of their virtuous desire for improvement, but if the English tongue is not forgotten the name of "Auld Reekie" will survive when mankind have found some better way of producing heat than the combustion of carbon.

The infirmities of age will probably compel Lord Brougham to retire from the Chancellorship of the University of Edinburgh, and His Royal Highness the Duke of Edinburgh is spoken of as possibly the future Chancellor.

Dr. Richardson's second lecture of the session was delivered on Tuesday, the attendance being even larger than on the last occasion. The subject of the lecture was "The Action of Narcotising Gases and Vapours," and the general tone of the lecture throughout was to show that the study and practice of anæsthesia not only lent to the suffering world the most beneficent of blessings, but that it opened for the first time in the history of Medicine a mode of experimental research which must ultimately bring our knowledge of the action of remedies to true physical principles. After demonstrating the action of several narcotic gases and vapours, a new substance—the Hydride of Caproyl—was introduced, and proved by experiment to be an anæsthetic. The properties of this vapour had been calculated on scientific theory, and the phenomena witnessed had been predicated before the substance had even been seen by the experimentalist. In bringing forward the bichloride of methylene, Dr. Richardson said that in every sense he had cause to be gratified with the practical results of its inhalation. The last point of the lecture had reference to the important and novel subject of the diffusion of anæsthetic gases and vapours in the lung, and their rate of action as determined by the rate of their diffusion through the pulmonary membrane. Here, again, a fixed principle of action was discovered and illustrated; but as the lecture will appear in full in our columns, we forbear to anticipate.

A vacancy occurs in the Surgical staff of the Westminster Hospital, caused by the migration of Mr. Power to St. George's, where he has been elected Ophthalmic Surgeon. We hear that Mr. Bruce, of University College, the inventor of the gas cautery, is a candidate. He will carry in his canvass the good wishes of a large number of his Professional brethren. Further changes are expected shortly to occur in the staff of St. George's.

On Friday last Mr. Bryant operated at Guy's Hospital for the extirpation of the spleen. The case, however, was unfortunate. Like that of Professor Kœberle, of Strasburg, death took place very soon after the operation. In both cases the spleen was adherent to the diaphragm, and rupture of the vessels in the adhesions led to fatal hæmorrhage.

LYING-IN HOSPITALS *versus* HOME ATTENDANCE FOR POOR WOMEN.

THE great mortality of Lying-in Hospitals is a point usually taken as proved. And there is no doubt whatever that "the puerperal woman is, from her very condition, prone to receive any contagion that may present itself. She is rendered still more susceptible to contagious influences by any marked depression of her vital force." But the women who seek refuge in Lying-in Hospitals are the poorest and most miserable, and the least provided with vital force; hence they are most susceptible of contagion; and if we admit that contagion may be taken from house to house of the sick, still more must we admit that it may be conveyed from bed to bed when many poor women are confined in one building and breathe the same air. It is the deaths from communicable disease which constitute the blot on these and other Hospitals, and of which science and humanity alike demand the suppression.

Still, the Evil One may be painted too black. Lying-in Hospitals, *certes*, have one virtue. They have exact records. "The patient is admitted (say) into the Rotundo Hospital; and she leaves it either not in labour, safe, or dead. The records containing such facts cannot, when compiled by an officer appointed for that purpose, be fallacious." Hence the worst is known; every death is given to the world, and the statistics, as has been well said of the Dublin Hospitals, "are entitled to a degree of confidence to which no other public vital statistics can lay claim." But whilst a certain amount of mortality from contagious disease is chargeable against Lying in Hospitals, anything like a comparative estimate is wanting; for no living man can tell what the mortality of lying-in women in Hospital ought to be till he can tell what the mortality of such women is out of Hospital, no matter whether attended as out-door patients of a charity or as private patients.

We assert, from our own knowledge, that the death-rate of parturient women in London is not known, but that it is

higher than any death register makes it. Practitioners certify deaths from "scarlet fever" and from "typhus," omitting the words "after delivery." If such cases had occurred among the few patients in a Lying-in Hospital, they would have told against the Hospital; they are not allowed to tell their tale against more multitudinous deliveries at home.

Whilst, then, we contend that Lying-in Hospitals are bound to reduce their death-rate from contagious disease, we must confess to a kind of satisfaction at seeing the cudgels taken up in their behalf, in a way that must tend to elicit the truth and put the whole question of the statistics of purperal mortality on a sounder footing. The cause of Lying-in Hospitals, as compared with home attendance for poor lying-in women—(may we say that the half French half Latin words *extern maternities* are enough to curdle the ink on a steel pen?)—both on the score of economy and of health, has been taken up by Dr. Edward B. Sinclair in a remarkably able pamphlet, from which we have quoted above. He denies the excessive mortality of Hospital delivery, and questions the safety of what he calls "pigsty delivery" in very forcible terms. In criticising Leon Le Fort's assertion of the safety of home delivery, he says:—

"We are led to understand as a fact, derived from a vague assertion, that cases of delivery occurring in an atmosphere enriched by emanations from ordure, filth, and crowded human beings—upon dunghills, which serve for beds, and in holes which admit of no ventilation, are attended with the happiest results, and that, therefore, some more deadly influence exists in Hospitals, giving rise to a large mortality, etc. How if I deny all this? Enumerate for me all the cases of delivery under such circumstances; note down all that happens with such during their *whole period of convalescence*; obtain a fair number of such from which to form an opinion, and then let me observe how much lighter the death-rate and sick-rate of these pig-sty deliveries are, than of those occurring in well conducted Hospitals. We are told, ill effects *rarely occur*. Is it possible that ill effects, under such circumstances, are *rarely noted*? Else, why should dirt and beastliness, ochlesis and stench, cesspools and choked drains, be so deleterious, in Hospitals, to lying-in women, and so innocuous to the same class when delivered out of Hospitals?"

Dr. Sinclair's very well-argued paper purports to be an answer to a paper by Mr. Phelan which appeared in the 85th Number of the *Dublin Quarterly Journal of Medical Science*, and is published by Falconer as a pamphlet, with a notice that it was refused admission into the *Dublin Quarterly Journal*. We have so sincere a respect for the Physicians of the Dublin school, that we must express our regret that a misunderstanding should arise amongst them on a subject so trivial. But, in our opinion, Dr. Sinclair is wrong. Instead of relying on the excellent arguments he is so well stored with, he has indulged in what evidently are sneering and disparaging remarks on his adversary, and insinuates something like a charge of injustice on his part to the "Rotundo," and a partiality to the "Coombe" Lying-in Hospital. It seems that the editor of the *Dublin Quarterly Journal* objected, not to Dr. Sinclair's arguments, but to his personalities. Most authors would have felt obliged to an editor who gave them the opportunity of weeding a paper from what disfigures it. Dr. Sinclair, however, refused to modify his expressions, and thus lost for his paper the privilege of admission into what we have always considered one of the first Medical journals in our language.

WORKHOUSE INFIRMARIES.

The history of Workhouse Infirmaries is really that of the snakes in Iceland—there are none. The existing Workhouses were intended for the reception chiefly of able-bodied paupers, and for the repression of pauperism. But during the last thirty years an immense change has come over the manner of dealing with severe sickness amongst the poor. Instead of being treated at home, they are sent to the Workhouses, and placed in the apartments which served as "sick wards" for the Workhouse itself, but which never were fit, and cannot be rendered fit, to serve their modern purpose of large parochial Hospitals. Moreover, they are governed by guardians, whose sole thought is to discourage pauperism, and who look on all indulgences as robberies on the ratepayers. We are certain that nothing that can be alleged against some of these places, as regards their utter unfitness for sick human beings, can be too severe. We have heard of at least one instance in which the sick are treated in an old damp building, and the only water available is from wells polluted with sewage. The existence of such places has become a national reproach. The clergy and gentry and more humanely disposed of the guardians, and the Poor-law Inspectors (who have no authority to enforce their recommendations), are set at nought by the herd of parochial save-alls. But is the Medical Profession blameless? Do not let us flatter ourselves. The remonstrances and demands of a humane and conscientious Medical officer are met with the fact that if he were to throw up office in disgust, his place would be filled by one of his brethren, who assures the guardians that the Workhouse is "quite good enough."

IS CANCER INOCULABLE?

The assertion made by M. Chauffard, in his recent address, that cancerous and melanic elements have been successfully inoculated, is at least open to question. At the present moment, when the subject of the inoculability of tubercle is being discussed, it is of interest to inquire how far it is true that cancerous structures may be engrafted. The history of experimental research made to determine the point is a long one, but our readers will find an excellent, though brief, summary of the leading facts in the last number of the *Gazette Hebdomadaire* (November 8). It would seem, from the review of the evidence, that it is by no means so clear that true cancerous matter can be inoculated, although numerous trials have been made from time to time. One of the earliest explorers in this field was Peysilhe, who, in 1773, introduced some of the matter expressed from a cancerous tumour beneath the skin of a dog, and succeeded in producing ulceration and gangrene, but failed to bring about a tumour. Dupuytren denied the contagiousness of cancer, and so also did Alibert Lenoble and Fayet, who experimented upon themselves with the ichorous purulent matter of cancer. The results of the inquiries of Langenbeck, Lebert, and Virchow, however, have been variously interpreted, and by no means decide the question. In the experiments of these observers, the cancerous juice was introduced into the veins of dogs, and when the animals were killed cancer-like deposits were found in the substance of their lungs. In the famous experiment conducted by Lebert and Follin, the cancerous juice was diluted with water and injected into the jugular vein of a dog. The autopsy, which was made fifteen days after, revealed numerous small tumours in the lung-tissue, and these, when submitted to microscopic examination, were recognised as true *cancer cells*. The experiments of Weber and Bilroth gave negative results, in so far as the tumours produced by inoculation rapidly disappeared again. The researches which have been carried out by M. Goujon point rather to the conclusion that cancer *is* inoculable, since they showed that tumours can be produced in healthy animals by inoculating cancerous matter. They are, however, open to doubt, in so far as the structure of the tumours thus artificially produced was found to be almost entirely composed of epithelial cells. The general results of M. Goujon's experiments would seem to show that, while cancerous matter from man may in some cases be successfully engrafted on guinea-pigs, cancer is readily transmissible from one guinea-pig to another. May cancer, then, be considered transmissible by contagion from man to man? This query remains to be answered, and we think the problem affords a fine field of investigation for some of our young pathologists.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Medico-Chirurgical Society met for the first time this session on Tuesday, when a large number of Fellows assembled. In the absence of Mr. Solly (detained by his duties as examiner at the College of Surgeons), Mr. Prescott Hewett took the chair. Among the presentations of books was one by Mr. Hawkins, consisting of a copy of Cheselden's works, and bearing the honoured autographs of Cheselden, Prout, and Brodie. The work was accompanied by a request that the Society would not part with it, which, Mr. Hewett remarked, respecting as they did the names it bore, they were not at all likely to do. The President then announced the volume of *Transactions*, the largest ever published, as nearly ready for distribution. Among the notabilities present was Professor Brunetti, of Padua, whose wonderful preparations of different organs of the body created such a *furore* in Paris. Some of these, which he had presented to the Society, were examined by the Fellows with great interest. Certainly, they altogether surpass anything of the kind hitherto produced. A paper by Mr. W. Sedgwick, "On the Relations of Cholera to certain other Cases of Suppression of the Urine in which there were no Symptoms of Blood Poisoning by Urea," was then read. The writer drew attention, for the most part, to the suppression of urine caused by certain poisons, as corrosive sublimate and arsenic, and to that caused by perforation of the stomach or bowels, comparing them with cholera. No sooner was it finished than Mr. French saddled and bridled the hobbyhorse on which he has so frequently taken a canter on cholera nights, and started off full swing, when he was brought up by the President just before the expected reference to Dr. Snow. Dr. George Johnson then proceeded, with all his great learning and ingenuity, to support a theory which leads to a mode of practice unacceptable to most men. His speech, as all his discourses are, was singularly clear and lucid, but failed, as his writings have done, to carry that conviction which would lead a man to dose himself with castor oil were he ill of cholera. With him the debate virtually terminated, for the only other speaker, Dr. Marcet, merely referred to certain of the chemical phenomena present in cholera. Mr. Sedgwick complained of the way his paper was read, some of its most important parts being omitted. We certainly hold that all papers ought either to be read *in extenso* or in abstract: the plan of reading extracts satisfies neither author nor audience.

PRISON DIETARIES.

The *Pall-mall Gazette*, in calling attention to Dr. Lankester's recent paper on prison dietaries, asks why the fine food collection at South Kensington has not been utilised in giving the public accurate views on the subject of dietetics. The question is a very proper one when applied generally, but in the present instance we think the negligence of the authorities, though hardly to be justified in principle, is at least excusable in fact. The food collection at Kensington, though of much interest and put together at considerable cost, is, we regret to think, almost useless as a means of giving accurate ideas on the subject of dietaries. When first the collection was arranged the specimens and models were classified and prepared in accordance with the then current doctrine that nitrogenous articles of food were alone engaged in nutrition, and that fatty matters were solely employed in keeping up the animal heat. The labours of Fick and Wislicenus abroad, and of Frankland and Anstie in this country, have exploded the old theory of foods, and hence the collection at Kensington would—in its present form—be absolutely valueless as a means of imparting a correct knowledge of the nutritive values of different articles of diet. We believe we are correct in stating that Dr. Lankester has drawn up his recently proposed scheme of dietary upon the basis of the old and all but extinct hypothesis; and we cannot but regret this, for, in the face of our present knowledge, it is a retrograde and mischievous step to found a system of dietary upon a nearly universally rejected theory of nutrition.

FROM ABROAD.—DIGITAL COMPRESSION IN ANEURISM—M. GOSSELIN AT THE CHARITÉ.

Professor Vanzetti, during his recent visit to Paris, communicated to the Surgical Society the particulars of three additional cases of aneurism treated by digital compression, of which he is the inventor. 1. A peasant, aged 44, entered the Hospital at Treviso, in order to be treated for an aneurism of the superficial palmar arch, the size of a walnut, which had supervened upon a wound inflicted about six weeks before.

"Being able to dispose of a half-hour, I employed it in compressing the brachial artery, without being very exact as to doing so quite continuously. The half-hour had not expired, when, on examining the tumour, I found it without pulsation or souffle and already solidified. Although well satisfied with such a result, I continued the compression for fifteen minutes longer, in order to assure the solidification, and then placed the arm in a simple sling. At the end of seven days the tumour had become quite solid."

In a month's time it had become reduced one-half in size, and the cure still holds good. 2. A mason, aged 44, entered the Venice Hospital for an aneurism of the femoral artery, which formed a very visible projection, situated immediately above the passage of the artery into the ring of the adductor magnus. The patient had observed the tumour gradually forming during two months. Complete and continuous compression was exerted over the pubis by several pupils and wardsmen. In less than ten hours the cure was effected, and at the end of a month the patient resumed his occupation, and, seen a year after, had continued quite well, a hard indolent lump, the size of a hazel nut, alone remaining of the tumour. 3. A peasant, aged 33, was admitted to the Hospital at Sacele for an arterio-venous aneurism at the bend of the elbow. Compression was made simultaneously on the humeral artery and basilic vein as continuously as possible by successive assistants during seventy-four hours. After this, compression was only employed for several hours per diem, and, although much delay and some vicissitude occurred in the treatment, the compression latterly being very uncertainly applied by the patient himself, yet a complete cure resulted.

We extract two or three passages from M. Gosselin's introductory lecture as the successor of Velpeau at the Surgical Clinic of La Charité.

"When I took possession of the Surgical service in this Hospital I was duly impressed with the reminiscences that presented themselves to me, and I am still more so to-day in addressing you in this theatre while thinking of the Professor who preceded me. During the 32 years that he was attached to this Hospital, Velpeau executed his duties with such a regularity and punctuality that one seems always about to meet the sympathetic face of the great Surgeon, who had become, so to say, the obligatory and necessary host of the Hospital. I seem still to be listening to and profiting by the remarkable lectures of this great master, whose pupil I had the happiness to be from 1840 to 1843, when he was in the plenitude of that talent which has never known insenescence. I was not then a *débutant*, but had reached that period of my studies when I could comprehend and appreciate him. I had even then some aspirations towards teaching, but I was indeed far from anticipating the perilous honour of one day succeeding him. To-day, then, I place myself under the patronage of Velpeau, and I shall endeavour to imitate him. If it is not given me to possess the same certainty of judgment and of memory, I hope to have the same regularity, the same punctuality, the same sense of duty, the same zeal for teaching, and the same regard for my patients. And if ever I falter, the example left by Velpeau will sustain and encourage me in the mission I have to fulfil towards you.

"La Charité has existed only for 260 years, and it had no Surgeon who made any name in science before the end of the eighteenth century. There is nothing surprising in this, for during a long period Hospitals were asylums for sheltering the wretched, and not schools for instruction. The pupils

came to them to learn dressing; but there was no clinical teaching—a matter on which the administration cared but little. We feel surprised at the present day that such a state of things should have endured so long; for when we peruse the works of Ambrose Paré and J. L. Petit, we find that these great Surgeons derived their observations from cases they had seen in the army or in their private practice."

Desault was the first well-known Surgeon at La Charité, and he may be regarded as the founder of its Surgical Clinic. Appointed in 1782, he was transferred to the Hôtel Dieu in 1788. Deschamps was appointed Assistant-Surgeon by Concoms, as was afterwards a far more celebrated man, Boyer, alike remarkable as a Hospital Surgeon, Clinical Professor, and author of the best treatise on Surgery. Roux was Boyer's Assistant, and when he was transferred to the Hôtel Dieu on the death of Dupuytren, Velpeau left La Pitié to occupy the Chair of Clinical Surgery at La Charité.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM

(Continued from page 498.)

We proceed, in the present article, to the consideration of the anatomy and physiology of the spinal cord. The first point to which M. Vulpian directs attention is the relative difference of length of this structure in different animals. In mammals it rarely extends to the extremity of the vertebral column. In man, for example, it never reaches beyond the second lumbar vertebra, below which its sole representative is a slender prolongation commonly known as the *filum terminale*. The most remarkable exception to this rule is presented by the ornithorhynchus, in which the spinal cord extends into the sacral cavity. On the other hand, in the bats, the hedgehog, and the echidna, the cord does not reach beyond the middle of the dorsal region. Again, while in most fishes the cord reaches to the end of the vertebral column, in *Lophius piscatorius* (the frog-fish) and in *Orthragoriscus mola* (the sun-fish) it is reduced to a short conical appendage to the encephalon, and scarcely extends beyond the *foramen magnum*, while the vertebral canal contains little more than the *cauda equina*. A similar modification has been observed by Professor Owen in Tetradon and Diodon, in a species of which latter genus he found the cord only four lines long in a fish seven inches in length.

After describing the external appearance of the human cord, and the view presented by a transverse section of it, he notices in succession the different elements which enter into the composition of the grey matter, both as it occurs here and in a more or less modified form in other parts of the nervous system. They are (1) the nerve-cells or vesicles; (2) a granular matter containing nuclei; (3) nerve-tubes or nervous fibres; and (4) vessels and connective tissue. As the cells have been better described by Todd, Bowman, and Beale than by any foreign writers, we pass them over without comment. On the cells, and surrounding them, is a finely granular transparent matter interspersed with nuclei, to which latter it often gives a frosted appearance. Its nature is not clearly known, some anatomists holding that it is a modification of connective tissue, and that it consequently plays no direct part in the phenomena of central innervation, while others regard it as a diffuse nervous matter. Of the nerve-tubes or nervous fibres occurring in the grey matter, some are complete—that is to say, are provided with a medullary sheath, and probably with a very thin investment of Schwann's cellular coat—while others, which are doubtless prolongations of the former, are reduced to an axile filament. The views of our countrymen Marshall Hall, Todd, and Lockhart Clarke, "whose researches on the structure of the spinal cord are not only the most recent, but the most complete," are very fairly represented; and numerous references are made to the investigations of Gratiolet, Jacubowitsch, Kölliker, Lenhossek, Owsjannikow (a pupil of Bidder's at Dorpat, which, if we may judge from the large number of valuable theses published by its graduates, must be the hardest-working University in the world), Schröder van der Kolk, Stilling, Van Deen, R. Wagner, etc., on this subject; and this is a fact which we deem worthy of notice, because it too often happens that really distinguished Frenchmen are apt to be unable or unwilling to recognise any discoveries made beyond the limits of their own country. We give in a condensed form our author's observations on the relations of the nerve-cells to one another. The true nature of the connexion subsisting between adjacent cells was first clearly demonstrated, although it had long been suspected, by R. Wagner, in 1852, who observed the meeting and fusion of the polar prolongations of two cells. Gratiolet shortly afterwards (in 1854) observed and described similar facts. A subject of such extreme interest was soon taken up by many observers, amongst whom Jacubowitsch and Lenhossek deserve to be specially named. According to them, the nerve-cells of each cornu are in connexion the one set with the other, by means of their prolongations, throughout the whole length of the cord. Thus, according to these observers, the nerve-cells of the grey matter may be regarded as forming a vast plexus extending from the *filum terminale* to the *medulla oblongata*. Subsequent anatomical investigation has, however, completely overthrown this magnificent generalisation, and the whole of the trustworthy evidence that can be adduced in its favour amounts simply to this—that in certain fishes, including the lamprey, the salmon, and the eel-pout, prolongations of the cells cross the mesial line, and thus pass from one to the other half of the cord. "But," adds M. Vulpian, who has specially studied this subject in the lamprey, "I have never succeeded in actually following these prolongations to the cells of the side opposite to that in which the cells sending forth the prolongations lie." When we find Jacubowitsch maintaining that the large multipolar cells which are situated in the anterior horns of the grey matter are *motor cells*, from whose poles the axile filaments of the *motor nerves* emanate; that the small fusiform cells in the posterior horns of the grey substance are *sensitive cells*, which give origin to very small axile filaments of *sensory nerves*; and that the still smaller cells, usually oval and bipolar, occurring between the anterior and posterior horns in the axis are *sympathetic cells*, from which the *fibres of the sympathetic nerve* take their origin; and when we read Owsjannikow's remarkable classification of the functions of the nerve-cells in accordance with their form—(1) the unipolar cells being regarded as *organic* or *sympathetic*, (2) the bipolar cells as *sensitive*, (3) the quadripolar cells as *subservient to reflex movements*, and (4) the multipolar cells as the *seat of volition*—we cannot help entertaining the fear that the too profound study of the minute anatomy of nervous tissue must have given an abnormal stimulus to the observing powers of these anatomists. M. Vulpian concludes his lecture on the structure of the spinal cord with the following brief summary, which we extract, not for any special novelty that it contains, but in consequence of the extreme clearness with which he describes, in a few sentences, the essential points in its physiological anatomy. "We see that this organ is formed of a fundamental substance, the *grey matter*, which extends continuously throughout its length. But, in a physiological point of view, the grey matter may be regarded as discontinuous, and as formed by distinct segments. Each segment consists of a group of cells immersed in a special structure, which probably is diffused nervous matter. Contiguous cells communicate with one another by prolongations, and doubtless also by simple continuity of substance, and the cell-groups of segments which are more or less distant from one another, are united by this same continuity of substance and by the commissural fibres which constitute a part of the bands of the white cortical matter of the cord. Moreover, these groups, individually and collectively, are in connexion, in different ways, with different parts of the encephalon—in the first place, by continuity of structure, for the grey substance of the cord communicates at its upper part with the special cell-formations of the medulla oblongata, and, through their intervention, with the other parts of the encephalon; and, secondly, by means of the external commissures, which form a part of the antero-lateral columns. Each segment contains two anterior and two posterior roots, destined to form a pair of spinal nerves, and those segments, from which the nerves composed of the greatest number of fibres proceed, are the most bulky, in consequence of the greater development of grey matter. The white substance at these enlarged spots is as thick as elsewhere, a fact which is partly due to the passage of a large number of transverse fibres (the fibres of the roots) across the longitudinal columns. The annelids possess, as a central nervous system, a ganglionic apparatus, in which each ganglion is united to that which precedes it and to that which follows it by connexions of various lengths. The spinal cord of the verteorates is nothing more than an analogous ganglionic apparatus, in which the connective links

become obscure in consequence of the coalescence and the fusion of the ganglia."—Pp. 348-9.

In his treatment of the physiology of the spinal cord, he devotes a lecture to the question, "What are the effects of exciting different parts of the spinal cord?" This lecture is chiefly historical, and contains a sketch of the labours of Sir Charles Bell, Bellingeri, Flourens, Magendie, Calmeil, Schiff, Brown-Séquard, Bernard, and Chauveau, with a description of the author's personal experiments. The conclusions at which M. Vulpian finally arrives are—"(1) The grey substance is absolutely unexcitable. (2) The anterior columns possess a certain degree of motor excitability. (3) The posterior columns are highly excitable. They are sensory and excito-motor while the cord remains uninjured, while they are excito-motor alone if the cord is transversely divided and separated from the encephalon. The same properties exist, in a less degree, in the part of the lateral columns contiguous to the posterior columns." From experiments which he made with the view of ascertaining whether the above-named results held good in other vertebrates besides mammals, he arrives at the conclusion that in birds the effects of irritation are the same as in mammals; and the fact that in birds irritation of the posterior and lateral columns produces far more distinct effects (pain and convulsions) than irritation of roots affords a strong argument against the views of those who hold that the columns are unexcitable. In frogs a difference of the same kind, but less marked in degree, is observed between the columns of the spinal cord and the roots of the nerves.

It has been long known and generally admitted (certainly from the time of Galen) that the spinal cord is the organ which serves for the transmission upwards of sensory impressions from the roots of the sensory nerves to the sensorium, and for the corresponding transmission downwards of motor influences originating in the brain to the roots of the motor nerves; but the physiologists of the present century have not remained satisfied with this general knowledge, and have specially devoted their attention to the two following very important subjects:—1. A full inquiry as to what are the parts of the cord which serve as organs of transmission (*a*) for centripetal, excito-motor, or sensory impressions, and (*b*) for centrifugal or motor influences. 2. Having once ascertained the routes followed by these impressions or influences, we have to determine whether the transmission is direct or crossed.

We shall analyse as briefly as we can M. Vulpian's views on these questions, and the first question will be considered under two heads—viz., the routes of motor influences and of sensory impressions respectively. The course of *motor or centrifugal influences* is a subject presenting little difficulty. The posterior columns take no direct share in the process; while the grey matter certainly plays an important part in it, for if this substance be divided, the movements are diminished. The true direct channels for voluntary motor influences are the antero-lateral columns; for if we divide these columns in an animal the parts which receive their motor nerves from those parts of the cord behind the point operated on are deprived of all voluntary motion. If we carry the investigation further, and inquire whether the anterior part and the lateral part of the antero-lateral column are equally powerful in transmitting motor influences, we find an answer in the ingenious experiments of Brown-Séquard, which, although they are not now brought before the English Medical world for the first time, are well deserving of a brief notice in the present place. He finds that the lateral columns in the dorsal region take an undoubted part in the transmission of mandates of the will, but that this part is less than that taken by the anterior columns, and that in the cervical region the converse holds good. The part which the lateral columns play becomes more important in proportion as we approach the medulla oblongata. In the cervical region, division of the lateral columns and of the grey matter which lies between them exerts the most marked effect upon the movements of the limbs, and may completely abolish motility, while section of the anterior columns alone produces a less distinct paralysis of the limbs than when it is performed in the dorsal region.

We now pass on to the consideration of the route taken by centripetal impressions—a subject of much more intricacy. "The relations," says M. Vulpian, "existing between the posterior roots and the posterior columns, and the experiments which prove that these columns are the most sensitive parts of the cord, would at first sight lead us to infer that these posterior columns were the organs of transmission of impressions from the periphery towards the encephalon; and this opinion appeared so natural that, when Longet (in 1841) published his remarkable experiments, they were almost universally adopted, at all events in France.(a) And yet the opinion is totally erroneous; and nothing is more easy than to prove that the posterior columns are *not* the means of transmitting impressions from the periphery to the encephalon." (P. 372.) As far back as 1823, Bellingeri proved that section of the posterior columns, so far from *abolishing* sensibility in the parts which receive their nerves from the portion of cord behind the section, materially *increased* it. This remarkable experiment, although confirmed by Fodera in the same year and by Calmeil in 1828, seems to have been strangely overlooked till Brown-Séquard and other observers (amongst whom MM. Vulpian and Philipeaux deserve to be specially named) repeated it with perfect success, and pointed out its importance in the discussion of this question. Another experiment, first made by Brown-Séquard, and often repeated by Vulpian and Philipeaux, is equally decisive against Longet's view. On cutting through the whole of the cord with the exception of the posterior columns, the sensibility of the posterior extremities *should not*, according to Longet, be affected, but in point of fact it is completely abolished, while the experiment of Van Deen, successfully repeated by Brown-Séquard, shows that if the antero-lateral columns are divided, while the grey substance and posterior columns are left intact, sensibility is preserved. Hence it follows (1) that division of the posterior columns *does not* destroy, but, on the other hand, increases, the sensibility of the parts behind the section; (2) that division of the whole of the cord, with the exception of the posterior columns, *does* destroy the sensibility; and (3) that division of the antero-lateral columns does *not* seem to affect the sensibility. It has further been shown, both by Van Deen and Brown-Séquard, that, after performing the experiment of completely dividing the grey substance without touching the posterior columns, and only slightly dividing one of the lateral columns, an almost entire loss of sensibility ensues. From these and other experiments we may fairly conclude that *the grey matter is the principal and almost the sole conductor of sensitive impressions.*

Longet's view of the function of the posterior columns being thus completely demolished, the next question is—What are the functions of this part of the cord? In the year 1858 Schiff proposed the startling theory that these columns are the channels for tactile impressions, while the grey matter only transmits painful impressions. Our author, after fully discussing and finally rejecting this and other theories as to the use of these structures, concludes with expressing his opinion that, "notwithstanding the instructive memoirs of M. Brown-Séquard, we know nothing whatever with certainty regarding the function discharged by the posterior columns." He strongly inclines, however, to Todd's view, who regarded them as "in part commissural between the various segments of the cord, and in part subservient to the functions of the cerebellum in regulating and conducting the movements necessary to perfect locomotion." ("Phys. Anat. and Phys. of Man," vol. i. p. 319.) Experiments confirmatory of this view have been made by M. Vulpian (see p. 381), who likewise quotes the following evidence afforded by pathology. In the disease formerly known as *tabes dorsalis*, but which is now better known as *ataxie locomotrice*, the most marked anatomical character is induration of the posterior columns of the cord. The want of due co-ordination of movements, which is characteristic of this affection, appears mainly due to the abnormal state of these columns.

(To be continued.)

SIR JOSEPH OLLIFFE.—At the annual meeting of the Irish "King and Queen's College of Physicians," under the presidency of Professor Stokes, Sir J. Olliffe was elected an honorary Fellow of the College.

A MEETING for the purpose of considering the best means of starting and supporting a magazine to represent the students of London will be held on Wednesday, November 20, at the Rainbow Tavern, Fleet-street, at eight o'clock in the evening. Professor Morley will probably take the chair.

(a) M. Vulpian's statement scarcely does justice to the popularity of Longet's views. Strange to say, they were almost universally received also in England, and were regarded as a confirmation of the theory of Sir Charles Bell—a theory which Bell had publicly repudiated six years before Longet's memoir appeared. Any one who will take the trouble of consulting Bell's memoirs in the *Philosophical Transactions* for 1834, will see that there was a complete disagreement of opinion between these two physiologists as regards the function of two out of the three columns of the spinal cord. For further details on this subject, we may refer to the second of Brown-Séquard's "Lectures on the Physiology and Pathology of the Central Nervous System," 1860.

REVIEWS.

RECENT WORKS ON NATURAL PHILOSOPHY.(a)

Although the recent decision of the General Medical Council that, while after 1869 Greek shall form a compulsory part of the preliminary examination, natural philosophy (under which term are included mechanics, hydrostatics, and pneumatics) shall remain optional, is not by any means satisfactory to those who hold with ourselves that a fair knowledge of certain departments of physical science is essential to the full comprehension of various parts of physiology, we entertain little doubt that, independently of the fact that all the most respectable examining boards insist upon a knowledge of this subject, it will always be an object of study for its own sake amongst all those of our younger Medical friends who aim at taking a high place in their Profession. The simple fact that "The Elements of Natural Philosophy," which stands first in the list of books given at the bottom of this column, and constitutes one of Churchills' valuable series of Medical manuals, has now reached a sixth edition, affords abundant evidence that the subjects discussed in that volume are generally studied. Although a book which has undergone so large a circulation may be fairly regarded as beyond the domain of criticism, we shall venture to point out a few instances in which, in so far as the requirements of Medical students are concerned, we think it is still capable of improvement. To this edition Mr. Brooke has written an introduction "On the Nature of Energy and the Correlation and Transmutation of its various Physical Forms," in which he propounds the hypothesis of a circular spiral wave-motion for the transmission of electric energy, by which the well-known polarity of electric and magnetic induction may be explained. Nearly five pages on this subject —pp. xxiv. to xxviii.—are an exact reprint of an abstract of his memoir "On the Nature of Electric Energy and on the Means by which it is Transmitted," read to the Royal Society on March 21, 1867, and published in No. 91 of the *Proceedings of the Royal Society*. Further evidence must be adopted before we accept his hypothesis; but we admit that (to use his own words) it is "not repugnant to reason nor adverse to physical experiment." We fear that this introduction will be in some measure unintelligible to the student who has not carefully read many of the later pages of the volume. In point of fact, Mr. Brooke introduces very nearly the whole of page 576, from the chapter "On Light," without any explanation, at p. xxix. We have further to object to this introduction on the ground that it enters into one of those theological discussions which are always out of place in scientific works. With this exception, the old arrangement of the volume is, so far as we can recollect, retained; but much new matter is introduced. "Amongst many other important topics, the magnetic properties of iron in relation to marine architecture, the determination of electrical constants, submarine telegraphy, the relation existing between electric energy and the functions of muscles and nerves, spectrum analysis, and the nature and properties of heat, have each received a large development since the last edition was published (in 1860); and it is sincerely hoped that neither in these nor in any other department of physical science has any important branch of the subject remained entirely unnoticed."

From this quotation from the author's preface, it is obvious that he has used his best endeavours to bring his book up to the existing state of science; and we venture to think that he has possibly erred in this respect, and has sacrificed space which might have been profitably expended on the discussion of great general principles, to a description of instruments, machines, etc., which we should naturally search for in works on practical mechanics, mill-work, watchmaking, etc. A reference to the fifth chapter will suffice to explain our meaning; such subjects as multiple gearings, wrapping connexions, combinations in trains, mangle-wheels, etc., should hardly find a place in a student's manual (which should be as concise and clear as possible), and we only admit the claims of link-work because the author has ingeniously adopted the principle in the construction of a movable curved needle for passing a ligature consecutively through both sides of a cleft palate in the operation of staphyloraphy. Such topics as these, and many which may be selected from other chapters (especially that on photography), belong, we think, to works on special departments rather than to works intended as text-books for general use; and, in point of fact, the substance of the chapter to which we have made special reference is borrowed (with acknowledgment) from Willis's "Principles of Mechanism." The author would greatly increase the value of the work by publishing, as a supplement, a series of well-selected examples. A few very simple problems on projectiles, specific gravities, etc., are, it is true, solved in the body of the text; but they are not sufficient, either in scope or number, to explain to the student how he should solve such examples and easy problems as he is likely to meet with in the examination papers with which he is at the present day constantly surrounded. We have before us two German collections of examples of this kind, which seem in all respects excellent, and may be taken as types of what we mean —viz., Müller's "Sammlung von Aufgaben für den mathematischen Supplementband zum Grundrisse der Physik und Meteorologie," which is appended to the Supplementband, (2nd ed., 1866); and Fliedner's "Aufgaben aus der Physik," of which a third edition appeared in 1865. They contain a large number of examples in mechanics, hydrostatics, acoustics, optics and optical instruments, electricity, galvanism and magnetism, heat, etc. In so far as mechanics alone is concerned, the examples given by Todhunter(b) in his admirable "Mechanics for Beginners" are fully sufficient. In a new edition it would be well, in the very few cases in which he uses the differential calculus, if Mr. Brooke would return to the ordinary notation—the *hen and chicken* notation, as it used to be popularly termed, being now almost universally given up—and if, instead of giving references to text-books, such as those of Hymer and Earnshaw, which are now rarely met with, he would refer to the more modern works on analytical geometry and mechanics. In the preceding remarks, we have not intended in the slightest degree to depreciate this excellent work; but we must confess that it is what may be termed *tough reading*. Like a well-known edible in the North, known as *Scotch bun*, it is crammed too full of plums to suit ordinary digestions; and it would be far more agreeable to the ordinary reader if it were diluted and expanded into three or four moderate-sized volumes, such as Jamin's well-known "Cours de Physique" in three volumes, and Daguin's "Traité de Physique" in four volumes—although it would then, of course, cease to be a text-book. Although he makes no reference to either of these valuable works, we have no doubt that he is familiar with them; and we venture to throw out the suggestion that, if he would follow M. Daguin's example of publishing a larger and a smaller work for different classes of readers, he would confer a great benefit on that large class of readers who wish to obtain a sound knowledge of the leading branches of natural philosophy without having first mastered the higher departments of mathematics.

Of Thomson and Tait's "Treatise on Natural Philosophy," for which scientific men have been anxiously waiting for the last eight years, comparatively few will be able to form a competent opinion, if it is taken as a whole. But, in deference to the weakness of the ordinary intellect, they arrange their work on a twofold plan. Their aim, in their own words, is this—"To give a tolerably complete account of what is now known as natural philosophy, in language adapted to the non-mathematical reader; and to furnish, to those who have the privilege which high mathematical acquirements confer, a connected outline of the analytical processes by which the greater part of that knowledge has been extended into regions as yet unexplored by experiment." As the mathematical portion is printed in a smaller type than the rest, the non-mathematical reader can at a glance perceive what portion he is intended to

(a) 1. The Elements of Natural Philosophy; or, an Introduction to the Study of the Physical Sciences. By Charles Brooke, M.A., F.R.S., etc. Based on the Treatise of the late Golding Bird, M.A., M.D., F.R.S., F.L.S. The Sixth Edition, and Third by the present Author, Amended and greatly Enlarged. London: Churchill and Sons. 1867. Pp. xxxii. and 554.

2. Treatise on Natural Philosophy. By Sir William Thomson, LL.D., D.C.L., F.R.S., Professor of Natural Philosophy in the University of Glasgow, and Peter Guthrie Tait, M.A., Professor of Natural Philosophy in the University of Edinburgh, formerly Fellows of St. Peter's College, Cambridge. Oxford: At the Clarendon Press. 1867. Vol. i., pp. xxiii. and 727.

3. Mechanics for Beginners, with numerous Examples. By I. Todhunter, M.A., F.R.S. London and Cambridge: Macmillan and Co. 1867. Pp. viii. and 350.

4. Cours de Physique Elémentaire, avec ses Applications à la Météorologie. Par P. A. Daguin, Professeur de Physique à la Faculté des Sciences de Toulouse. Toulouse et Paris. Pp. vii. and 736.

5. Die medicinische Physik. Von Adolf Fick, Professor der Physiologie in Zürich. Zweite gänzlich umgearbeitete Auflage. Braunschweig. 1866. Pp. xiv. and 451.

(For our copies of Daguin and Fick we are indebted to Messrs. Williams and Norgate.)

(b) If Mr. Todhunter would publish two corresponding volumes on "Hydrostatics for Beginners" and on "Optics for Beginners," we have no doubt they would be generally accepted as text-books.

omit. The first division of the work is strictly preliminary, and consists of four chapters. The first chapter treats of *Motion*, a subject totally independent of the existence of *matter* and *force*. The writers adopt the suggestion of Ampère, and, like Delauney and other French mathematicians, use the term *kinematics* for the purely geometrical science of motion in the abstract, while they employ the term *dynamics* in its true sense—as the science which treats of the action of *force*, whether it maintains relative rest or produces acceleration of relative motion. The two corresponding divisions of dynamics are thus conveniently entitled *Statics* and *Kinetics*. The authors have kept in view "the grand principle of the *conservation of energy*, according to modern experimental researches, especially those of Joule. Energy is as real and as indestructible as matter. It is satisfactory to find that NEWTON anticipated, so far as the state of experimental science in his time permitted him, this magnificent modern generalisation." In the second chapter they give NEWTON'S laws of motion, with some of his own commentaries, and no reader of ordinary intelligence can fail to increase his knowledge of these much-talked-of, but little-understood, laws, if he will carefully study the portion of this chapter from the beginning to page 194; and this is followed by mathematical investigations of a somewhat higher order. The third chapter is headed "Experience," and treats of observation and experiment as the basis of natural philosophy. By far the greater part of this chapter and nearly the whole of the fourth chapter, which "deals with the fundamental units and the chief instruments used for the measurement of time, space, and force," present few mathematical difficulties.

"The second division is devoted to Abstract Dynamics (commonly of late years, but not well, called Mechanics). Its object is briefly explained in the introductory (fifth) chapter, and the rest of the present volume is devoted to Statics." Chapter VI., after a short notice of the statics of a particle, enters fully into the subject of Attraction; and many of the most important propositions on this subject—as, for example, "the attraction of a uniform spherical surface on an external point is the same as if the whole mass were collected at the centre"—are proved in a most simple manner; while Chapter VII. (the last of the present volume) discusses the statics of solids and fluids with special reference to the theory of tides, the figure of the earth, etc. There are two appendices to this chapter, of the second of which, "On the Secular Cooling of the Earth," we may state that it is one of the most intensely interesting memoirs that we have had the good fortune to read. It originally appeared in the *Transactions of the Royal Society of Edinburgh* for 1862, and we are glad to see it here reproduced. Should the three succeeding volumes at all come up in value to the present one, Thomson and Tait's "Natural Philosophy" will deserve to take place with Newton's "Principia" and Laplace's "Mécanique Céleste." This is strong language, but not too strong.

A student desirous of combining a knowledge of the French language with the pursuit of natural philosophy, cannot do better than purchase Daguin's "Cours de Physique." It is composed of four books, of which the *first* treats of *Mechanical Physics*, under which head are included statics and dynamics, hydrostatics and hydrodynamics, acoustics, etc; the *second* discusses *Heat* in all its departments and applications, and the steam-engine; the *third* deals with *Electricity* and *Magnetism*; and the *fourth* with *Optics* and *Optical Instruments*.

Fick's "Medicinische Physik" differs in many respects from any of the preceding volumes. It is not an independent work on physics generally, but is intended for the use of Medical Practitioners, who are supposed to be more or less acquainted with the general principles of natural philosophy. It is a supplementary volume, as is stated on the title-page, to Müller-Pouillet's "Lehrbuch der Physik,"(c) but may be studied equally well by those who have not access to that work. Our limited space prevents us from doing more than briefly indicating the nature of the contents of this volume. It is divided into seven sections, which are subdivided into thirty-eight chapters. The first section treats of molecular physics, such as the diffusion and absorption of gases, the diffusion of fluids, imbibition, filtration, and endosmosis; the second is devoted to the geometry of the movements of the joints, muscular statics, the elasticity of the tissues, and the history of Helmholtz's *myographion* and its various modifications—an instrument which he describes as one of the most essential mechanical aids to recent physiology; the third discusses, under the head of Hydrodynamics, the course of a stream in rigid tubes and wave-movement in elastic tubes, and concludes with descriptions of the chief wave-indicators that have been employed in physiology—namely, Ludwig's and his own form of the *kymographion*, and Vierordt's and Marey's *sphygmographs*; the fourth and fifth sections treat of sound and heat respectively, there being special chapters on "the sounds in the respiratory passages and in the circulating system," on "the physical principles on which animal heat is maintained," and on "the temperature of the animal body;" while the sixth and seventh deal with optics and the theory of electricity respectively. The volume concludes with a supplement on "The Application of the Theory of Probabilities to Medical Statistics." The present edition of Fick's work is the second, and in one respect it presents a peculiarity which renders it almost unique in the annals of literature. We are in the constant habit of seeing "second edition enlarged," but never before have we seen "second edition diminished." This diminution is mainly effected by the omission of all details found in ordinary text-books on physics. It would be well if many other authors would follow so wise an example.

(c) Probably few of the present readers of the *Medical Times and Gazette* are aware that a translation of an abridgment of this work appeared in the *Medical Times* before the union of the two journals. Nor are they likely to be acquainted with the somewhat curious history of the book itself. Many years ago a French physicist, Pouillet, published an excellent work on physics, which, after a time, was translated into German, with great additions, by Professor Müller, of Freiburg. Successive editions, each superior to the other, rapidly appeared, till at last, as in the cases of Elliotson's translation of Blumenbach's "Physiology," and of Brooke's edition of Bird's "Natural Philosophy," comparatively little was left of the original work, which, after being known for a considerable time as Müller-Pouillet's, is now commonly described simply as Müller's "Lehrbuch der Physik." The enormous bulk of this work led to his subsequently publishing a smaller work, entitled "Grundriss der Physik und Meteorologie," which has likewise passed through a very large number of editions. It was the "Grundriss" which was translated for the *Medical Times*, and, if we are not mistaken, the late Mr. Baillière purchased the translation, and brought it out as a separate volume some twenty years ago.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

PARIS, November 13.

THE opening lectures at the Paris Faculty of Medicine have again been disturbed by one of those students' rows which now seem to have become endemic in this city. The suppression of the *séance d'ouverture*, and the foreign policy of the Government, are stated to have been the exciting causes of the present movement, although that riotous tendency which is so apt to prevail in any numerous body of young men may fairly be entitled to a share. In fact, however unpopular the late measures of the French authorities may have been, it seems hardly fair to inflict the penalty upon the scientific men who come forward to impart official instruction, and who most certainly would not have voted in favour of the Holy See if they had a voice in the matter.

When Professor Gavarret attempted to open his course of physics, he was cheered and interrupted by the students, who told him they had the greatest sympathy for his person, but would not allow him to proceed. When Professor Robin, the next day, attempted to open the course of histology, he was obliged to retire after an ineffectual struggle of ten minutes. On the third day the opening lecture on general pathology was preceded by a speech from the Dean, M. Wurtz, who told the students that he was far from feeling on a bed of roses, and that, if it were not for the sake of the Faculty, he would long ago have thrown up his situation. He reminded them that, under a variety of circumstances, he had constantly exerted himself in their favour.

A little silence being obtained, Professor Lasègue addressed the assembly. He informed them that he would devote that day's lecture to the history of the labours of Trousseau and Andral, in order to teach them the respect due to their masters—a lesson of which they greatly stood in need. "I am not accustomed," he said, "to flatter the multitude; such conduct on my part would be mean and contemptible, and you must not expect it from me. I will therefore tell you at once that, instead of behaving like men, you act like children. You ask for freedom, but you do not deserve it; you complain of the restrictions under which you are placed, but no students in any university enjoy greater liberties than you do. Look at the law students—young men of your own age—and think of the regulations to which they submit. Remember that

they are obliged to serve their apprenticeship in an attorney's office, and to obey the orders of a clerk. Compare your situation with theirs, and learn to be thankful. You follow the lectures when you choose; you walk the Hospitals when you please; you are free to select your teachers; and the only thing we demand of you is not to disturb the regular course of instruction. We should be happy to give you a still greater share of liberty if you were only fit to enjoy it." This address was loudly cheered, and the rest of the Professor's lecture was listened to with religious attention—a circumstance which will certainly surprise no one who knows the temper of a mob.

No further disturbance has occurred since then, and it must be hoped that Professor Lasègue's example will cure the Faculty of its excessive timidity, and teach it no longer to submit to the *vox populi*, which in this case only represents the tendencies of a boisterous minority, composed of its most unprofitable pupils. On the other hand, the great majority of French students are both able and anxious to learn; and the considerable audience which has attended the opening lectures of Béhier and Gosselin, Bouillaud and Richet, is a sufficient proof of this. Surely the leaders of our Academy ought not to allow some twenty or thirty individuals to persevere in creating a disturbance on every public occasion. It would be easy to fix upon the culprits, and expel them at once from the University. At all events, if this process, which has been going on for the last five years, is to continue for any length of time, both masters and pupils will be covered with ridicule—of all things the most dreaded in this country.

The numerous deaths which have lately occurred among our most eminent men have created a number of vacant seats, which are now beginning to be filled. At the Academy of Medicine, the unexpected disappearance of Follin, who had been nominated only a few months ago, left a place which has been filled by M. Demarquay. In this case the Academy has decidedly given the preference to plodding industry over superior merit. M. Chassaignac, the talented inventor of Surgical drainage, of *écrasement linéaire*, and one of our most eminent Surgeons, has been left out in the cold. But there is one thing which learned bodies do not always dispose of at their will, and that is—Fame, which the public at large are always sure to dispense with greater impartiality than can ever be expected from any official corporation.

The deaths of Velpeau and Rayer have beheaded our two Medical associations. Hitherto somewhat hostile to each other, it appears that an attempt at union will be made by nominating Professor Nélaton President of both—something like the election of Prince Couza by the two Danubian principalities. Let us hope that the attempt will succeed, in spite of all difficulties; but a great deal of opposition is to be expected.

Two seats are vacant at the French Institute. The place of Rayer will probably be filled by a chemist; that of Velpeau remains open to competition.

At the Faculty of Medicine the Chair of Anatomy, and that of External Pathology are now vacant, and the election will shortly take place. It is to be deeply regretted that these important situations are not open to free competition.

Professor Claude Bernard has been elected President of the Biological Society, of which he has long been the most illustrious member. The health of our great physiologist is now fully restored, and he will soon resume the course of his labours.

The weather in Paris is at present unusually fine, and, excepting a few cases of typhoid fever, there exists no prevailing epidemic.

GERMANY.

Frankfort, November 1.

The annual meeting of German Naturalists and Physicians, which came off in this city in the latter half of September, was an unusually successful one, partly in consequence of the excellent arrangements for the business of the meetings and the comfort and entertainment of the visitors which were made by the local committee, and partly from a greater zest having been given to this year's congress by the warlike events of 1866 having prevented the usual meeting last year.

The general meetings of Medical congresses are seldom interesting or entertaining, as the speakers generally bore the audience by excessively long and tedious papers on subjects in which nobody takes an interest. This year, however, a decided change for the better was perceptible, both in the brevity and the subjects of the communications, to the evident delight of the assembly, of which ladies generally formed a considerable proportion. Nevertheless, as a matter of course, the scientific interest of these gatherings centres in the sectional meetings, and it is of these I will to-day give you a report, merely premising that this year, for the first time, a well-attended section for public hygiene was formed.

In the section for anatomy and physiology, Prof. Krause, of Göttingen, spoke on the anatomy of the retina. Proceeding from the generally received proposition that the optic nerve terminates in the rods and cones, he put to himself the question about the special nature of this termination. Some observers have described a central fibre in the external layers of the rods, which Prof. Krause has distinguished from the internal layers of the same in the human eye. The existence of this central fibre, however, is not yet proved beyond doubt; and what is quite certain is only this, that the optic nerve may be traced to an ellipsoid body which exists in the rods and cones, and for which Prof. Krause proposes the names of rod-ellipsoid and cone-ellipsoid respectively. He has recognised and described the rod-ellipsoid in the retina of the fowl as far back as 1860. The rod- and cone-ellipsoids are, with the exception of small differences in their size, absolutely identical, and the latter also occur in reptiles and mammalia. They may be most easily distinguished by adding diluted acids or perchloride of gold.

Professor Max Schultze, of Bonn, remarked that it was not difficult to discover the ellipsoid body in the fresh eye. He did not believe that the terminal fibre in the internal layer of the rods was connected with the ellipsoid body, which could be made out by the addition of certain reagents. He had discovered a whole bundle of fibres on the surface of the internal rods, and he thought that, by pursuing these investigations further, even more complicated results would be obtained. The lamellar structure which had been described by Krause, and of which scarcely anything could be made out in the fresh eye, became very distinct on adding certain chemical substances, by which a swelling of the intermediate substance of the lamellæ was caused. Professor Hensen, of Kiel, said that Ritter had first seen the fibre in the internal layer of the rods, and that it therefore ought to be called Ritter's fibre. It could be easily seen on making transverse sections of the rods in the fresh eye of the bat, where the fibre could be recognised as centre of the transverse section. Professor Krause thereupon rejoined that Ritter's fibres, which had been treated with a saturated solution of chromic acid, were not identical with the terminal fibres under consideration, but were artificial formations caused by the acid employed.

Professor Meyer, of Zurich, spoke on the structure of bone. He said that the chief constituent of bone was its spongy substance, and that the most important part of the latter was its lamellæ. These lamellæ showed a most systematic distribution in the astragalus. They were placed in such a manner as to resemble a vaulted structure; and the same distribution might be observed in the os calcis. One system of lamellæ proceeded posteriorly towards the heel, and another anteriorly; while a third system went from the tuberosity of the tendo Achillis towards the anterior parts, being vaulted inferiorly. The system of fibres proceeding from the astragalus might be traced to the capitulum of the metatarsal bone. These several systems acted in mutual relation, as pressure and traction-curves. They could not be so distinctly traced in the upper extremities, but systems of lamellæ could be made out in the tibia, and a third system was recognisable in the epiphyses of the tibia. An admirable provision had been made in the upper part of the femur. One system of fibres proceeded from the epiphysis of the femur to the internal dura, and another to the external dura of the bone, while a third system proceeded from the trochanter and crossed the two others, a gap being left in the centre of these three systems. In fact, the bone had entirely the same construction as certain artificial mechanical structures, and appeared to constitute a system of pressure and traction-curves.

Prof. Lucae, of Frankfort, read a paper on the median plane of the skull of the mammalia; after which, Prof. Schaaffhausen, of Bonn, spoke on the formation of pus-globules out of blood-corpuscles, which he had most distinctly observed. He had seen the transitions from the red blood-disc to the pus-corpuscle in carbuncles, in pustules of skin, and in fresh hæmorrhage from the kidneys. This change of a blood-disc into a pus-corpuscle was a sort of fatty degeneration. All the different forms of transition could be found, especially in the commencement of suppuration. The young pus-cells were not larger

than the blood globules; they still showed the shape of the disc, were even biconcave, and had not yet entirely lost their colouring matter. He then gave his reasons for this theory of pyogenesis, and said that the phenomena of pyæmia were thereby easily explained.

Prof. Max Schultze spoke on the structure of the eyes in crabs and insects. He started from the question whether the crystal cone and the sentient elements were continuous or not, or, in other words, where the image-producing apparatus ceased, and where the nervous apparatus commenced. In crabs, there existed very large crystal cones, enveloped by pigment, and the nervous structures were seated behind. The cones were much shorter in insects. He scouted the idea of continuity, and looked upon a distinction between an image-producing and a sentient apparatus as proved. In insects, the crystal cone had a round termination, and the nerve was either simply contiguous, or it embraced the cone. This cone was composed of four pieces, and there were four nuclei at its anterior portion; the posterior part of the cone had a cylindrical shape, and appeared to be analogous to the vitreous body. The structure of the cone was rendered conspicuous by the addition of perosmic acid. The same lamellar structure which had been recognised in the rods of the human retina had also been shown to exist in the lower animals. In the crab, the lamellæ were so large as to be perceptible with a very low magnifying power, independently of their being distinguished from the neighbouring parts by colouring matter.

Dr. Schulze, of Rostock, spoke on the use of perchloride of palladium in microscopic investigations. He used a solution of 1 in 800, feebly acidulated with hydrochloric acid. Small pieces of tissue became, by the addition of this substance, as consistent as cheese, within eight days, and minute sections might then be easily made. The sections should then be deprived of water, and might be impregnated with carmine, whereby those parts which were not coloured by perchloride of palladium obtained a red appearance. By the use of the solution of palladium, the connective and elastic tissue remained uncoloured, hyaline membranes assumed a light yellow hue, cell-formations a darker yellow, and the nerve-marrow a greyish black. The fact that the unstriped muscular fibres (contractile fibre-cells) were coloured yellow by the perchloride, was of great importance, because they might thereby be easily distinguished from the connective tissue. Dr. Schulze had used this agent in his researches on the structure of the ciliary muscle, and found that the circular fibres formed a coherent layer on the whole inner surface of the ciliary body, while the longitudinal fibres formed a similar layer on the outer surface of this body. The anterior point of insertion of the muscle was fixed, the posterior being movable, so that, if a muscular contraction took place, the zonula Zinnii, which, in the elastic tense condition, was inserted on the capsule of the lens, would be deprived of its tension, and a more considerable curve of the lens be brought about.

Dr. Hermann, of Berlin, spoke on muscular contraction. The muscles consisted of a substance which was very easily decomposed, and from which, during contraction as well as during rigidity, an albuminous matter, myosine, was eliminated. A similar substance was also contained in the nerves. If this process of separation was more rapid in one portion of continuous muscular or nervous matter than in another, the former became negatively electrised as regards the latter. From this fact, a number of electrical observations made in nerves and muscles might be easily explained. The nerve was functionally excited at the moment when this separation of matter was rapidly taking place. Muscular contraction and rigidity, although the chemical processes involved in the same might appear to show considerable differences, had their cause in the separation or elimination of myosine, which, in the former act, occurred very rapidly, and was immediately followed by fresh solution of this substance, while in the latter condition the elimination extended over a longer space of time, and no resolution took place. During rigidity, the eliminated myosine, by its elastic powers, imparted a different shape to the muscle. Professor Gerlach, of Erlangen, remarked that these researches gave a satisfactory explanation of the parelectronomic layer of the muscles, first described by M. Dubois-Reymond, of Berlin.

Professor Gerlach then made some neurological communications. He had found in several cases that the nervous process of the ganglia of the spinal cord, which only received a sheath of marrow at a certain distance from the ganglion-cell, proceeded onwards in a horizontal direction, and ceased close to the white matter. By means of the perchloride of gold and soda, by which the nerves acquired a red and the connective tissue a blue colour, it was discovered that broad nerve-tubes proceeded in the white commissure, and narrow tubes in the grey commissure, beyond the median line, towards the other side, and that the so-called ependyma-filament consisted exclusively of connective tissue. The hypoglossus nerve, according to researches made with the perchloride of gold and soda, took its origin only partially from the nucleus of the hypoglossus described by Stilling, while other fibres originated from the pyramids and the restiform bodies.

Dr. Kollmann spoke on the development of the teeth. He remarked that there were great discrepancies in the statements set forth by German and French observers on this subject. On the one hand, Kölliker, Waldeyer, and Hertz were unanimous in considering the first formation of the tooth to begin with an epithelial organ, which from the surface proceeded towards the deeper parts, and showed intumescences at certain portions. Those intumescences constituted the so-called enamel-germ, and the papilla of the tooth, or the tooth-germ, grew up from the depth to meet it. By the union of these two parts the formation of the tooth was finished. On the other hand, the French observers, such as Guillot and Robin-Magitot, denied the existence of this epithelial organ, and contended that the formation of the tooth originated, with all its component parts, in the depth of the mucous membrane, and independently of any other structures. Dr. Kollmann had found that these discrepancies in the statements were due to the French observers having failed to recognise all the various stages of the development of the teeth, and more especially those earlier stages in which the two structures—viz., the tooth-germ and the enamel-germ—existed separately.

In my next letter I shall communicate to you the proceedings of the Medical section of the Congress.

BIRMINGHAM.

November 1.

In one of my communications I referred to the fact that the Profession here is fully alive to the miserable and palpably inadequate remuneration which club Surgeons receive for their services. Dr. Heslop was the first to bring the subject before the public in an able and convincing letter, which has since been printed and widely circulated. It has given rise to specific action being taken for the amelioration of matters. A committee has been formed to carry out the necessary and required measures of reform, the principal feature of which is the advocacy of 4s. or 5s. a year instead of 2s. 6d. and 3s., the hitherto regarded standard sums. It is, however, very doubtful whether the club magnates will be induced to make this advance, as they know they will have no difficulty in procuring the services of other Surgeons who are not so nice in the observance of the rules of Professional etiquette, and who ignore the necessity of there being any united action taken in this question. These are the pounds-shillings-and-pence men, oblivious alike of self-respect and the dignity of their high calling—alas! there are not a few such in Birmingham, and I fear they are to be found in other large towns also.

The new Council of Queen's College will be elected on the 11th inst., when, I hear, there will be presented to the Governors a list of persons (properly chosen, it is to be hoped) for their approval. On some future day, most likely, a similar list of Professors will be submitted to the new Council; and it may possibly exclude certain of the old Professors, without the preliminary politeness of asking their consent being observed. Should such be the case, they must console themselves with the reflection that it is for the good of the College, and, Curtius-like, bow to the sacrifice.

The entry of students at the Medical institutions of the town has been comparatively large. The total number of students attending the practice of the Queen's Hospital is thirty-eight; of these, sixteen have entered upon the first year of their Professional study. The number of fresh students at Queen's College is sixteen; at the Sydenham College as many as twenty have entered this year.

"Hospital Sunday," so called because it is a Sunday set apart in each year on which collections are made for the Medical charities of the town. This year the golden harvest was reaped for the minor Hospitals—such as the Dispensary, the Eye and Lying-in Hospitals, etc. The Homœopathic Dispensary was also included. This might very well have been left out, for the good it does is purely *globulistic*. Nearly £3000 was collected.

The following cases occurred lately at the Queen's Hospital; they possess a few points of interest, which induces me to give them a place in my letter:—

M. S., aged 44; admitted July 4, under Mr. Gamgee. Whilst walking in the street a brick fell from a house-top, struck her on the head, and knocked her down; but she did not become insensible. On admission into the Hospital, the patient was quite sensible; a wound, three inches in length, was found on the top of the head, close to the superior longitudinal sinus. On introducing the finger into the wound, the bone was found fractured and depressed to the extent of two inches and a half. Chloroform was administered, and Mr. Gamgee removed a considerable portion of depressed bone—consisting principally of the external table—by means of the trephine and bone pliers. Dry cold was applied to the head for the first fortnight, and she progressed favourably without a single bad symptom, and at the end of two months left the Hospital quite well, with a considerably depressed cicatrix.

Large Ulcerated Fatty Tumour of the Arm.—A. M., aged 65, admitted September 10, under Mr. Wilders, with a rapidly growing ulcerated fatty tumour, size of adult head, situated on upper and outer part of left arm, immediately below the insertion of the deltoid. The disease had existed for about eight years; it had not occasioned hæmorrhage, but was attended with considerable pain and abundant purulent discharge, which had enfeebled her breath. On September 20 the tumour was removed by two incisions seven inches in length; it weighed nearly four pounds. Before the edges of the incision were brought together by silver wire the wound was swabbed with a solution of carbolic acid (one part in four of linseed oil). The woman progressed after the operation; the edges of the wound quickly united by the first intention without any discharge of pus, and she left the Hospital quite well at the end of ten days.

GENERAL CORRESPONDENCE.

THE PROTECTION AFFORDED BY VACCINATION.

LETTER FROM DR. DRUITT.

[To the Editor of the Medical Times and Gazette.]

SIR,—Six years ago I called the attention of your readers to the measure of the amount to which the existing population of this country is protected by vaccination, as that measure was given in the chapter on Revaccination in the *Army Medical Reports* for 1859. It was assumed that not to be able to take the vaccine is *the* proof that the patient is not able to take small-pox, and the converse. And it was shown from the *Army Medical Reports* (1) that out of 1000 soldiers and recruits who *had had small-pox*, 440 were insusceptible to vaccination; (2) out of 1000 who showed *good vaccine marks*, 404 were insusceptible to further vaccination; (3) out of 1000 who showed imperfect vaccine marks, 325; and (4) out of 1000 who had no marks at all, 235 were insusceptible of vaccination. Of course, these numbers subtracted from 1000 show the numbers capable of taking vaccine in same degree, and, we suppose, also small-pox.

Now the *Army Medical Reports* for 1863, 1864, and 1865 tell the same tale; and it is one pregnant with interest to the student of sanitary science.

Recruits for the army may be considered to represent, for all Medical purposes, the average of the English young adult male population. Well, in 1863 6846, in 1864 12,110, and in 1865 11,171 recruits were divided into four classes, as follows:—

(1) Those who had *marks of small-pox*; and of these the number found insusceptible of further vaccination bore the proportion per 1000—1863, 493·4; 1864, 367·9; 1865, 379·4.

(2) Those who had good vaccine marks resisted vaccination in the proportions—1863, 393; 1864, 311·2; 1865, 367·7.

(3) Of those who had doubtful vaccination marks, the number who resisted further vaccination were—1863, 212·1; 1864, 268·2; 1865, 357·3.

(4) Of those who had no marks of either vaccination or small-pox, there resisted revaccination per 1000—1863, 145; 1864, 216·8; 1865, 220·0.

Now we all know the test of perfect vaccination: repeat the operation, and it fails, until by time the vaccine protection is worn out. And the above figures show that vaccine influence is not an absolute and permanent protection, but a temporary and partial one.

I do not mean to say that every man whose vaccine influence is decayed *will* take small-pox, but that he *might* take it if exposed to an infection of sufficient intensity; and that the safety of large numbers of the well vaccinated, of larger numbers of the ill vaccinated, and of the majority of the unvaccinated depends on the absence of exposure to infection during an epidemic of small-pox.

To speak of exterminating small-pox by vaccination alone may be reasonable in a small secluded community, little frequented by travellers, and to which the small-pox infection is not brought from without; whereas, in a large restless community like London, however well vaccinated or often vaccinated the people may be, it is absolutely certain that the disease will be brought in, and that, if vaccination alone be trusted to, the disease will in an epidemic season spread in whatever house, or court, or small close street it may have invaded.

Of course, every person who values his skin will, knowing the temporary nature of the protection given by vaccination, take care to renew it from time to time, for, temporary or not, it is a unique act of mercy in the Creator to have given us any such shield at all against so loathsome and terrible a disease. But, instead of resting content with saving ourselves by vaccination, we ought rather to use it as a vantage ground for carrying on a war of extirpation against the disease itself. Why are not the tramps who crowd to the nightly refuges of the metropolis vaccinated if need be, and, at all events, their clothes disinfected by heat and brimstone during the night? If we want to extirpate small-pox, we need the same powers that we enjoyed with regard to the cholera—to cleanse and fumigate every infected room, burn all infected bedding and clothes, and to make fair trial of Dr. Dewar's sulphurous vapour, or of the carbolic acid, so as to kill any germs which the air may float off from the sick man's skin.

I am, &c. R. DRUITT.

A QUERY FOR DR. BARNES.

LETTER FROM DR. T. RADFORD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read with great attention Dr. Barnes's valuable "Lectures on Obstetric Operations" now in course of publication in your journal, I was particularly struck with the following remarks:—"If you have the advantage of bringing on labour at seven months, then you may eliminate the Cæsarian section, and slide down the scale of operations, so that craniotomy shall correspond with the fourth degree, etc." . . "Fourth degree (conjugate diameter reduced below two inches) admits of craniotomy."—Lecture V. Part I. page 507. Entertaining opinions on the Cæsarian section which are adverse to its elimination as a recognised obstetric operation in cases of pelvic distortion in which the brim is less than two inches, I am sure Dr. Barnes will kindly excuse me asking him the following questions:—

Is it possible to safely bring on premature labour at the seventh month in those cases of pelvic distortion in which the brim measures less than two inches? Could craniotomy be successfully and safely performed in such cases?

I am, &c.

Manchester, November 11. THOMAS RADFORD.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 12, 1867.

T. B. CURLING, Esq., Vice-President, in the Chair.

DR. MOXON read a report on the tumour of the femur exhibited at last meeting by Mr. Bryant. He described it as being of the nature of an osteochondroma, its elements being similar to those in the deep layer of the periosteum.

MR. SPENCER WELLS then exhibited a very large

ABDOMINAL FATTY TUMOUR, WEIGHING TWENTY POUNDS,

removed from a lady aged 43, who had been ill for several years, and latterly had been confined to her room. An exploratory operation was made some time before, when the fatty nature of the tumour was made out. When the abdomen was laid open, the tumour was found to be lobulated,

situated in the mesentery, and surrounded by a sort of capsule. No large vessels were cut in its removal.

Dr. Wilson Fox said he had seen a fatty tumour, though not so large, in the abdomen of a female who had at one time been a patient in Middlesex Hospital. She had twice been operated on for recurrent fibroid tumour; after the last operation she died of pyæmia, and on a post-mortem examination being made a fatty tumour the size of a cocoanut was found in Douglas' space; another and a smaller one was found in the mediastinum. Both were probably metamorphosed tumours of a fibroid nature, as their outer portion presented distinct indications of such a structure.

Dr. Moxon remarked that there were several specimens of such tumours in the museum at Guy's Hospital. They appeared to be enlarged appendices epiploicæ.

Mr. Prescott Hewett asked whether the lady was thin or corpulent [she was of medium stoutness], as in a fat subject there might be some difficulty in diagnosing the tumour. There had been some years ago under his care a female reduced to mere skin and bone, yet in her mesentery was a large fatty tumour.

Mr. Curling remarked that fatty tumours were most common in such patients.

Mr. Maunder exhibited a specimen of aortic and innominate aneurism, supposed to have been of the innominate only, for which deligation of the common carotid and of the subclavian had been performed. Seven years before, the man had been cured of a popliteal aneurism by pressure. The present pulsating tumour was first noticed seven months ago. When it was evident that the aneurism was about to burst, the distal operation was tried, but the patient died on the seventh day, the clot formed in the sac having projected into the aorta. After the operation the severe gnawing pain disappeared.

Mr. Christopher Heath said that two years ago he had performed a similar operation; the patient was alive now. Two cases of aortic aneurism had also recovered when so treated, and although it was not perhaps to be recommended (one Physician did so), still in this instance it was only the conservative process carried too far which had caused death.

Mr. Maunder then exhibited a specimen of

FEMORAL ANEURISM WHICH HAD EXISTED FOR THREE YEARS.

Pressure had proved useless as a mode of treatment, and although there was a good deal of obstruction to the return of the blood, as the man had nearly died of bleeding from a varicose ulcer, it was determined to ligature the common iliac. It was afterwards found that he laboured under disease of the heart, and that his aorta was dilated. He died of gangrene on the seventh day. The aneurism involved the common femoral, the profunda, and the external iliac.

Dr. Leared exhibited a specimen of

DISEASED AORTA

from an individual who had suffered from syphilis. There was on one side a tumour like a syphilitic deposit, on the other an ulcer, which had partially destroyed one of the flaps of the valve.

Mr. C. Heath showed a rare specimen of

FRACTURE OF THE METACARPAL BONES,

the wrist not being involved. The injury was inflicted by an engine. There was no displacement.

He then brought forward a specimen of

SCIRRHUS OF THE HAND.

He first saw the patient in 1863, when he removed the ring finger. Afterwards he amputated the middle finger also. The disease again returned, when he cut off everything except the thumb and forefinger; finally, he had been obliged to remove the whole hand. Mr. Bruce had examined the specimen, and found it to be really scirrhous. No glands were enlarged.

Mr. Heath then showed a specimen of

MELANOSIS OF THE ARM AND LUNG.

The spot at first looked like nævus. It was cut out, and the patient did well for a time; but the disease returned, and the axilla became implicated. Both tumours were removed. She did well for a week, but died of pleurisy. The lung was found to be melanotic in certain patches.

Mr. Bruce remarked that the specimen was one of considerable interest, especially in connexion with the development of the several deposits. The small tumour, originally removed from the skin of the forearm in last spring, presented to the naked eye the appearance of a glandular growth, and, on examination, was found to consist mainly of greatly hypertrophied sebaceous glands surrounding the hair follicles; but, in addition, there were found numerous concentric masses or nests of epithelial cells, and also free epithelial cells lying in close proximity to the hair follicles, but apparently not enclosed within a limiting membrane. Besides these were, however, cells of a different type, oval and caudate, with distinct nuclei and nucleoli, and some pigment granules, evidently of a cancerous nature. The tumour recurred locally in the form of small nodules, presenting only the latter class of cells closely packed in the meshes of a fibrous network. The pigmentation was marked in some of these cells. In the large melanotic gland removed from the axilla, the same elements were discovered invading the normal structures of the lymphatic gland. The masses in the lung and bronchial glands proved to be of the same nature. The chief pathological interest lay in the connexion which existed between the cancerous and glandular structures in the original growth—a connexion which has been pointed out by several Continental observers.

Mr. Heath finally narrated the case of a child who had a loose tooth removed; in its place a tumour was very rapidly formed. It was removed, with a portion of the gum, and the child did well for six weeks. A tumour was then noticed, and in four days it had involved all the remainder of the jaw and perforated the skin. All the diseased parts were removed, and the child remained under observation.

Dr. Cayley exhibited a specimen of

CANCER OF THE ANTERIOR MEDIASTINUM AND PLEURÆ

originating in a persistent thymus. The patient was a woman, aged 36, who died in the Middlesex Hospital October 27. All through the summer she had suffered from short breath and frequent cough, and since July her feet had been œdematous. In September, the dyspnœa and cough became much aggravated, and her left arm became œdematous, and a good deal of swelling was noticed on the left side of the neck. She was admitted into the Hospital October 15, under Dr. Murchison. On admission, there was urgent dyspnœa, frequent hacking cough, with much muco-purulent expectoration. The left hand and arm were very œdematous, and there was much œdematous swelling above the left clavicle; the feet were also slightly œdematous. On physical examination of the thorax, all the signs of great liquid effusion on the left side were found to be present, and this side measured one foot more in circumference than the right. The dyspnœa became more urgent, and on October 18 paracentesis was performed, and forty-six fluid ounces of clear serum were drawn off. This was followed by great temporary relief, but the fluid re-collected, and on October 24 the operation was repeated, and twenty fluid ounces removed. Signs of congestion of the other lung now appeared, and she died on October 27. On post-mortem examination a nodulated cancerous tumour, about three inches in length, was found behind the upper part of the sternum; it compressed and partially surrounded the left innominate vein, which, with the terminations of the internal jugular and subclavian veins, were plugged with firm adherent masses of fibrine. The greater part of this tumour consisted of firm white cancerous tissue, but at its lower part was a portion resembling fatty tissue, and this, on microscopical examination, was found to consist partly of fat and partly of thymus structure. The left pleura was thickly studded with cancerous nodules and filled with bloody serum; numerous cancerous nodules were also scattered over the right pleural surfaces. The left lung was collapsed, and partially infiltrated with cancer. The bronchial and mediastinal glands were enlarged and infiltrated, and cancerous nodules projected into the pericardium. A chain of cancerous glands extended on both sides into the neck. Both pneumogastric nerves appeared to become incorporated with a mass of cancerous nodules, but on microscopical examination the nerve fibres, though surrounded and separated by cancer cells and nuclei, could be traced apparently unbroken through the cancer. It is not improbable that the thymus, as in this case, may be not unfrequently the point of origin of mediastinal cancers. This may always be suspected where the mass of the tumour lies in front and above the left innominate vein.

Dr. Cayley also exhibited a specimen of

COLLOID CYSTIC DISEASE OF THE OVARY,

associated with true colloid or alveolar cancer of the peritoneum. The patient, a widow, aged 46, died in the Middlesex Hospital, under the care of Dr. Goodfellow, October 29. In March last she first noticed an enlargement beginning to form on the left side of the belly; this rapidly increased, and the whole abdomen became enormously distended. During the last three months she has suffered from constant vomiting. On admission, there was great distension of the belly, which measured thirty-nine inches in circumference at the umbilicus,

and all the signs of a large ovarian cyst, with very distinct fluctuation. The patient was very prostrate, vomited everything she took, and died Oct. 29, a week after her admission. On post-mortem examination, the left ovary was found converted into a large cyst, containing several gallons of fluid and an enormous quantity of gelatinous colloid matter; besides this large cyst, the walls of which were thin and adherent to the abdominal parietes and intestines, were an immense number of smaller cysts also filled with gelatinous matter. The right ovary was about the size of a small orange, and consisted of a mass of cysts of all sizes also filled with colloid matter. The under-surface of the diaphragm, the surfaces of the liver, spleen, and intestines presented masses of colloid cancer growing from them. These had an appearance like that of boiled tapioca. Many of the mesenteric glands and the glands in the transverse fissure of the liver were converted into similar masses. The viscera themselves did not contain any deposits. On microscopical examination, these growths on the peritoneum presented the characters of colloid or alveolar cancer, large alveolar spaces communicating with each other, and containing cells, which were, however, smaller than those usually found in alveolar cancer. This case is interesting as showing a connexion between two forms of disease usually held to be distinct—namely, colloid cancer, and cystic colloid of the ovary. Some pathologists, however, as Rokitansky and Cruveilhier, have always maintained their identity.

Mr. Wagstaffe exhibited a

CURIOUS MALFORMATION OF THE HEART,

the superior cava opening into both auricles. There was no cyanosis during life, and the patient died of pericarditis. The heart was three times its natural size; the mitral and aortic orifices were small, the tricuspid and pulmonary dilated. The right auricle and ventricle were very large; the left ventricle was healthy. Another specimen somewhat similar was found in the museum of St. Thomas's Hospital.

Dr. Pye Smith exhibited a curious case of transposition of the viscera.

MEDICAL NEWS.

University Intelligence.—University of London.—The following Candidates passed the late Second M.B. Examination:—

PASS EXAMINATION.

First Division.—Marcus Beck, University College; Charles Berrell, King's College; John Cavafy, St. George's Hospital; John Reuben Bathurst Dove, London Hospital; Oliver Thomas Duke, Guy's Hospital; John Wickham Legg, University College; George Hunt Orton, St. Bartholomew's Hospital; Henry Franklin Parsons, St. Mary's Hospital; George Rolph Raine, Guy's Hospital; James Sawyer, Queen's College, Birmingham; Robert Shingleton Smith, B.Sc., King's College; Charles Edward Squarey, University College; Paul Henry Stokoe, B.A., Guy's Hospital.

Second Division.—Herbert Ray Archer, St. George's Hospital; Edward William Berridge, St. Bartholomew's Hospital; John Durham Bird, Royal Manchester School of Medicine; William James Garrett, St. Bartholomew's Hospital; Joseph Groves, B.A., King's College; John Lloyd, Queen's College, Birmingham; Edward Mackey, Queen's College, Birmingham; Henry Morris, B.A., Guy's Hospital; William Thomas, Queen's College, Birmingham.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College at a meeting of the Court of Examiners on the 12th inst., viz.:

Messrs. Julius Ottaway Sankey, Reading; William George Kemp, L.S.A., Canterbury; Ernest Richard Evans, Hertford; Lawrence Clapham Thorney, near Peterborough; Alexander McGregor, Weaverham, Cheshire; Joseph Miller Kirkman, Horndean, Hants; Frederick Edward Aldrich, Mildenhall, Suffolk; Edward Bowles Crowfoot, Beccles, Suffolk; Lancelot Newton, L.S.A., Alconbury-hill, Hunts, and Henry Trentham Butlin, Camborne, Cornwall, students of St. Bartholomew's Hospital; Robert Sephton, Atherton, and James Howard, Dukinfield, of the Manchester School; Hardwick Hubert Braye, L.S.A., Hastings, and George William Brunwell, Kendal, Westmoreland, of Guy's Hospital; William Gordon Maddox, Launceston, Tasmania, and William Richard Gowers, Mornington-crescent, of the University College; Horatio Nelson Hardy, Liverpool, of the Dublin School; Robert Anderson, L.R.C.P. and L.S.A., Ellaston, Derbyshire, of St. George's Hospital; Charles Blackwell Sweeting, Nassau, West Indies, of the London Hospital; and John Chapman, Bayswater, of St. Mary's Hospital.

The following gentlemen were admitted Members on the 13th inst., viz.:—

Messrs. John Guy, L.R.C.P. Edin., and L.S.A., Workington, Cumberland; Frederick Samuel Daldy, Finsbury-square, and Alfred Robert Steele Perkins, Exeter, students of Guy's Hospital; Barnaby Constance MacEgan, Dublin, Henry James Linton, Birkenhead, and Matthew Wilson Kennedy, Coleraine, County Derry, of the Dublin School; William Henry Sutcliffe, L.S.A., Manchester, and Thomas Wilson, Manchester, of the Manchester School; Frederick Hopkins, Oxford, and Henry Sainsbury, L.S.A., Lavington, Wiltshire, of the Birmingham School; Richard Hughes, Liverpool, and William Younghusband, Birkenhead, of the Liverpool School; Samuel Alford, Taunton, of University College; James Tompsett, St. Leonard's-on-Sea, of St. Thomas's Hospital; Edward Laurie, M.B. Lond., Manchester, of the Edinburgh School; Thomas Loome, Dock-street, E., of the London Hospital; John Walton Browne, M.D., Queen's University, Belfast, of the Belfast School; Robert Clark Newton, Newcastle-on-Tyne, of the Newcastle School; Samuel Matthews Griffiths, Bristol, of the Bristol School; and John Henry Parker Wilson, Ryder-street, St. James's, of St. George's Hospital.

It is stated that eight out of the forty-eight candidates examined during the two days failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their Hospital studies for the full period of six months.

Apothecaries' Hall.—Name of gentleman who passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, November 7, 1867:—

Lancelot Newton, Alconbury-hill, Hunts.

The following gentleman also on the same day passed his First Examination:—

James Waters Harrison, Sheffield Infirmary.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cooper, A., M.R.C.S.E., has been appointed Second Junior Surgeon to the West London Hospital, Hammersmith.

Irving, Mr H., has been appointed Apothecary and Assistant-Secretary to the West London Hospital, Hammersmith.

Jones, J., M.R.C.S.E., has been appointed Apothecary to the St. George's and St. James's Dispensary.

Power, N., M.B., has been appointed Ophthalmic Surgeon to St. George's Hospital.

Sadler, Michael Thomas, jun., B.A. and M.D. Lond., has been appointed Officer of Health to the town of Barnsley.

Sansom, A. E., M.D. Lond., M.R.C.P., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, *vice* Dr. A. Leared, resigned.

Tatham, J., M.D., has been appointed Second Junior Physician to the West London Hospital, Hammersmith.

BIRTHS.

Blogden.—On November 6, at Minchinhampton, Gloucestershire, the wife of R. Blogden, M.R.C.S.E., of a daughter.

Bremner.—On November 5, at Streatham House, Canaan-lane, Edinburgh, the wife of B. A. Bremner, M.D., of a daughter.

Cameron.—On November 13, at 38, Albemarle-street, W., the wife of G. F. Cameron, M.D., of a son.

Cregeen.—On November 7, at Upper Brent Cottage, Blackheath-hill, the wife of J. J. Cregeen, M.D., of a son.

Cribb.—On November 7, at 37, Compton-terrace, Canonbury, the wife of A. J. Cribb, M.D., of a son.

Harper.—On November 7, at Barnstaple, North Devon, the wife of J. Harper, M.R.C.S.E., of a son.

Nash.—On November 9, at Royston Lodge, Ladbroke-grove, W., the wife of E. Nash, M.D., of a daughter.

Orphoot.—On November 8, at 113, George-street, Edinburgh, the wife of P. Orphoot, M.D., of a daughter.

Reilly.—On November 8, at 109, Globe-road, Mile-end-road, the wife of F. J. Reilly, M.R.C.S.E., of a son.

Turner.—On November 2, at 30, Margaret-street, Cavendish-square, the wife of J. S. Turner, M.R.C.S., of a son.

MARRIAGES.

Hall—Smith.—On November 5, at Christ Church, Plymouth, R. M. Hall, Staff Assistant-Surgeon late 33rd Regiment, to Mary Caroline, daughter of the late Colonel G. Smith, H.E.I.C.S., of Plympton Lodge, Devon.

Panas—Ball.—On November 9, at the Greek Church, London-wall, Dr. F. Panas, of Paris, to Mary, eldest daughter of Xenophon Ball, Esq., 31, Pembridge-gardens. No cards.

Stocker—Southby.—On November 7, at Bampton, Oxon., J. S. Stocker, M.D. Lond., of Cumberland-street, Hyde-park, to Mary Anne, eldest daughter of the late R. W. Southby, Esq., of Bampton.

DEATHS.

Colquhoun, F. S., M.R.C.S.E., of Tiverton, formerly of Knuteford, Cheshire, on October 25, aged 23.

Gaches, W., M.D., of Yaxley, Hunts, formerly of Peterborough, on October 27, aged 74.

Moon, W., M.R.C.S., of Tottenham, at Nether Hall, Hathersage, Derbyshire, on November 10, aged 65.

Young, W., M.D., of James-street, Calton, Glasgow, on October 31.

VACANCIES.

Durham County Asylum.—Assistant Medical Officer.

German Hospital, Dalston.—Second Honorary Dentist.

Hanwell County Hospital.—Non-resident Dispenser.

Liverpool Dispensaries.—Resident House-Surgeon and two Assistant-House-Surgeons.

St. Thomas's Hospital.—Medical Registrarship.

Westminster Hospital.—House-Physician; House-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Edmonton Union.—The Cooper's-lane District is vacant. Salary £12 10s. per annum.

Weymouth Union.—Mr. H. Tizard has resigned the Melcombe Regis District; area 1488; population 6498; salary £45 per annum. The Wyke Regis District is vacant; area 2062; population 3025; salary £30 per annum. Also the Workhouse; salary £50 per annum.

APPOINTMENTS.

Barnstaple Union.—Thomas A. Roberts, M.R.C.S.E., L.S.A., to the Eleventh District.

Chipping Sodbury Union.—Charles A. Bush, M.R.C.S.E., L.S.A., to the Marshfield.

Congleton Union.—Samuel Gosling, M.R.C.S.E., L.S.A., to the Biddulph District.

Holywell Union.—Edward G. Clarke, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to the Mold District.

Lambeth Parish.—John Harman, M.R.C.S.E., L.S.A., to the Eighth District.

Patrington Union.—John F. Mackereth, M.D. Edin., M.R.C.S.E., to part of the West District.

St. Luke, Chelsea Parish.—William Blundell, M.R.C.S.E., L.S.A., to the South-east District.

Thornbury Union.—Edward M. Grace, M.R.C.S.E., L.R.C.P. Edin., L.S.A., to the Thornbury District and the Workhouse.

Wakefield Union.—William Henry Day, L.R.C.P. Edin., M.R.C.S.E., to the Sandal District.

Death of Mr. Warington, F.R.S.—We regret to announce the death of Mr. Warington, the distinguished chemist and pharmaceutist. Mr. Warington had a considerable share in the production of the last edition of the Pharmacopœia. He was an excellent chemist, and succeeded Mr. Henurle as chemical operator at Apothecaries' Hall. He had long been in failing health, and his death, which took place at Bovey Tracey on Tuesday last, had been expected for some weeks. Mr. Warington was 60 years of age.

Society for Relief of Widows and Orphans of Medical Men.—At an ordinary general meeting of this Society, held on October 30, Sir William Fergusson, Bart., was elected a Vice-President in the room of John Propert, Esq., deceased, and W. W. Gull, M.D., a Director, *vice* George Budd, M.D., who had resigned.

London Water.—The *Mining Journal* states that it is proposed to add to the existing water supply, by adopting Mr. Austin's suggestion to sink a number of artesian wells. It says that five of these borings are about to be made at the following places:—The Crystal Palace, Trafalgar-square, Temple-gardens, Lincoln's Inn-fields, and Smithfield-market.

Professor Morlot, who filled the chair of geology in Lausanne, and died a few months since, left a curious will. One of the conditions was that his head should still be useful to science, and preserved in the museum at Berne, with his name legibly engraved on the skull, so as to prevent its ever being mistaken for any other. This condition has been complied with.

The Food Markets of London.—This important subject will be discussed at the meeting of the "Food Committee" of the Society of Arts, which will be held to-day (Saturday, 16th inst.). The Committee announces that it will be happy to receive suggestions from any one possessing practical knowledge on the points to be investigated.

Académie de Médecine.—M. Demarquay has been elected by forty-two out of sixty-nine votes into the section of Surgical Pathology in the place of the late M. Follin.

Harveian Society.—At a meeting of this Society on November 7, Vice-President J. B. Walker, Esq., in the chair, a paper was read by Dr. Charles Drysdale, "On the Treatment of Syphilis, with a Review of the Recent Debate in the Société de Chirurgie at Paris." The author of the paper showed that in this debate, which lasted from February till July, 1867, several of the speakers had given evidence of the inefficacy of mercury as an anti-syphilitic agent. M. Dolbeau had completely abandoned it, after trying comparative experiments, with and without mercury, at the Lourcine Hospital. M. Cullerier had abandoned mercury in treating primary sores, and said that many persons got well without taking any mercury. M. Perrin, also, had treated 470 cases of syphilis, some with and some without mercury, and found it no preventive of secondary syphilis, and of such slight efficacy as to make it doubtful whether it should be ever used in syphilis. M. Verneuil, a partisan of mercury, said it required a year and a half with mercury to treat an eruption of syphilis. M. Velpeau observed that half the cases of syphilis are cured without mercury. M. Deprès had treated comparatively 234 syphilitic patients with and without the drug, and found 15 per cent. had relapses after using it, and 10 per cent. when it was not used; also that the great majority of cases of secondary and tertiary syphilis at the St. Louis Hospital had taken long courses of mercury, which had not done any good to them; and that iritis seemed to occur more frequently when mercury was used. He gives cases of women aborting after taking long courses of mercurial pills, and of others untreated having healthy children. According to M. Defries, there was found always a difference in favour of the tonic method of treating syphilis over the other, or mercurial mode, and he says that only about 4 per cent. of persons tonically treated had relapses, whilst 42 per cent. had relapses after mercury was used, as far as his observations at the Hôpital St. Louis went. Dr. Drysdale said, he could not help believing that mercury was, at any rate, of no use in the treatment of syphilis, and he thought the analeptic treatment was usually sufficient, aided, in difficult cases, by Dr. Boeck's syphilisation plan, which certainly gave the best statistical results, and whose only disadvantage lay in the scars left on the persons of the inoculated—a small matter if it would, indeed, cure so sad a disease. He approved of strong nitric acid to mucous tubercles and ulcers, and of large doses, such as gr. xv. t. d., of iodide of potassium in tertiary nodes and periostitis.

South London Medical Society.—A meeting of several members of the Profession on the south side of London was held on Tuesday, November 5, at the Ophthalmic Hospital, St. George's-circus, Southwark, for the purpose of organising a society of Medical men in the district; J. Z. Laurence, Esq., in the chair. The Chairman, in his opening remarks, expressed what he considered to be the primary objects of Medical Societies in general: firstly, to promote a feeling of kindliness and good fellowship between members of the same Profession, cementing strongly friendly relationship, and promoting forbearance amongst them in their professional intercourse; secondly, such societies are intended to diffuse knowledge and encourage interchange of thoughts between the members, not necessarily by the productions of creative genius, but often by those more humble efforts of the mind which, if they are not original, tend more widely to propagate facts which otherwise might enjoy but a limited sphere of utility. The Chairman then briefly alluded to two societies formerly existing in South London and the causes from which they became defunct. He expressed the hope that, having ascertained the cause of their decay, a practical lesson might be afforded for the establishment and organisation of this newly-projected Society. The want of such a society in South London he particularly commented upon, as there are at least eight strictly Medical Societies on the north side of the river, whereas not a single association exists on the south side, exclusive of those in connexion with Guy's and St. Thomas's Hospitals. Mr. Laurence concluded by inviting gentlemen present to express their opinions in reference to the proposed Society. Observations were made by Dr. Fagge, Mr. Brenchley, Mr. Hentsch, Mr. Chabot, Dr. Constable, Mr. Harrup, Mr. Moon, Dr. Parker, etc., each of whom cordially supported the scheme. The following resolution was unanimously agreed to:—"It is desirable that a Medical Society be formed on the south side of the Thames, and that such a society be called the 'South London Medical Society.'" A provisional committee was then formed for the preparation of laws and the selection of officers, the same to be subsequently submitted to the gentlemen who consented to co-operate. Honorary Secretaries *pro tem.*, Robert C. Moon, Assistant-Surgeon to the Ophthalmic Hospital, Southwark; John H. C. Constable, Surgeon to the Royal South London Dispensary.

Dr. William Farr, M.D., F.R.S., has been elected an Honorary Fellow of the King and Queen's College of Physicians in Ireland.

Association for promoting the Extension of the Contagious Diseases Act of 1866 to the Civil Population of the United Kingdom.—On the 11th instant, a numerous meeting was held to inaugurate an association for checking the spread of venereal diseases. Dr. Pollock took the chair, and a large influential number of Medical and non-Medical men attended. The Chairman pointed out the object of the Association to be simply to limit the present spread of venereal diseases by providing suitable accommodation for women suffering with these diseases, for conferring authority on the police to compel any woman of the town alleged to have contagious disease to submit to Medical examination, and, if found diseased, to send her to a Hospital, where she may be retained until no longer able to communicate disease

to others. The Association proposed also to connect with all Hospitals for this purpose an asylum, to afford to unfortunate women opportunity for renouncing their vicious mode of life. The Association is clearly anxious not to recognise prostitution to any greater extent than it is already recognised, but to apply to persons afflicted with this particular kind of contagious disease the same regulations for the good of the community enforced against persons suffering with small-pox and other fevers—namely, to seclude them from society while they are capable of propagating the disease. Mr. James R. Lane proposed, and Dr. R. Westmacott seconded, "That the Contagious Diseases Act of 1866, which at present applies only to the military and naval population of certain stations, should be extended to the civil population of all large towns." He pointed out how beneficially already this Act has worked wherever it is in action. Venereal disease has much diminished among the soldiers and sailors, while the disease itself has become much milder and more easily cured among the women with whom the men associate. Mr. Dennie heartily approved the objects of the Association, and trusted that purging gross indecency from the streets of our large towns after nightfall would be one of its first aims, that young lads of nineteen or twenty might be saved this temptation at least, and much immorality would be avoided. Mr. Erasmus Wilson proposed, and Mr. Holmes Coote seconded, "That sufficient accommodation should be provided for the reception of poor persons suffering with contagious diseases, and that the new Infirmaries for the pauper sick should afford the necessary accommodation for venereal diseases." In London our present make-shift or no-shift system provides hardly any refuge for the miserable creatures haunting the docks and other poor parts of London, who continue infecting scores of healthy persons during the interval of misery that precedes their death from semi-starvation and exhaustion. Other resolutions were carried respecting the establishment of the Association, among which was one inviting provincial Medical societies to join it, and, by furnishing information respecting the injury inflicted on society in their district, attract public attention to the enormous mischief, both to morals and public health, that now ensues from a comparatively small number of persons being permitted unrestricted intercourse with the healthy. A numerous list of Vice-Presidents was elected, and a small committee, with power to add to their number. Among the Vice-Presidents we noticed the names of Sir Henry Thompson, Mr. Skey, Sir Elkanah Armitage, Dr. Pollock, and others; and among the Committee Mr. James Lane, Mr. Ernest Hart, Mr. Wakeling (guardian of the poor of St. Ann's, Westminster), Mr. Victor de Méric, and others. Mr. J. Brendon Curgenven, 11, Craven-hill-gardens, Bayswater, W., and Mr. Berkeley Hill, 14, Weymouth-street, W., have undertaken the duties of Honorary Secretaries.

INQUEST AT OXFORD.—An inquest was held on Saturday, November 9, in the Hall of Lincoln College, Oxford, before Dr. Charles Mayo, Fellow and Sub-Warden of New College, and Coroner for the University, on the body of Mr. H. O'Hanlon, B.A., Fellow of Lincoln College, aged 25 years, who had been found dead in his rooms on the previous morning with a bullet-wound in his forehead and a pistol by his side. The jury was composed of members of Lincoln and Brasenose Colleges and "matriculated persons." Dr. Tuckwell, of Lincoln College, was chosen foreman. The inquiry, which lasted five hours, resulted in a verdict that the deceased shot himself while in a state of unsound mind. The question which chiefly occupied the attention of the jury was that of the deceased's accountability for his actions at the time of his death. As to the time and circumstances of the act of suicide, and the deliberation with which it was carried out, no doubt whatever was raised. The deceased purchased a revolver on the previous Tuesday, selecting it from among others as being the largest. He already possessed a smaller one. On the evening before his death he called and paid for it, and afterwards dined with a friend at an hotel. After dinner, having returned to his rooms, he told his friend that he had bought a revolver, and described it, asking at the same time whether such a weapon would kill, and pointing with his finger to the middle of his forehead. He seemed in high spirits, and his friend had not the smallest suspicion that he was likely to commit suicide. At about ten o'clock on the same evening he joined a whist party at Brasenose College, and was able to follow the game perfectly. At half-past eleven he returned to bed, nothing strange being observed in his manner. At half-past nine the next morning he answered on being called, and shortly afterwards rang for hot water and took it in. Soon aften ten a noise of some kind was heard, of which no one took any special notice. At eleven o'clock, as no answer could be obtained from him, an undergraduate living in adjoining rooms broke open the door, and found him lying with his head and shoulders against it, quite dead. From the position of the body it seemed probable that he had stood in front of the looking-glass, and held the pistol, with the muzzle against his forehead, with his left hand, pulling the trigger with his right. The evidence which induced the jury, some of them after considerable difficulty, to come to the conclusion that the deceased was of unsound mind, notwithstanding the facts detailed above, and the statement of some of his College acquaintances that they never had any reason to doubt his sanity, was of the following kind. First, he had been elected to his Fellowship only at the end of last term, and had resided on it only three weeks; and that no sufficient motive was shown. Secondly, that he had been under Medical treatment for a considerable time, and that his Medical advisers, Mr. Symonds, Mr. Taunton, and Mr. Hitchings, spoke of him as having been at one time extremely violent and subject to a delusion, and at another suffering from great despondency, and a feeling "as if he were going to have delirium tremens," while some of his friends testified that he had felt too ill to give lectures, and had spoken and acted on various occasions in a strange and wild way, especially about a fortnight before his death. Thirdly, that there was a history of probable cerebral disease in the family, and that he had, on a previous occasion, thrown himself off the new pier at Brighton. Of this last fact, however, the evidence produced was insufficient, and was not put to the jury, though there is little doubt that the deceased was the person described. On these grounds the verdict was given, after some deliberation. The wound was a little to the left of the centre of the forehead, and passed directly into the skull. The skin immediately round the bullet-hole was blackened to the extent of about an inch in diameter, and the interior of the wound was also blackened with powder, but the rest of the skin was not scorched at all. From this, and from the very slight noise made by firing the pistol, it is inferred that the muzzle was held in contact with the skin.

THE MALPIGHIAN BODIES IN THE KIDNEY OF BATRACHIA have received the attention of M. Duncan, of St. Petersburg, who, in a recent memoir, gives some interesting particulars of their structure. From M. Duncan's observations it would seem that the capsule of these bodies is neither simple nor amorphous. It is composed of two lamellæ, which may be separated by a solution of chromate of potass containing an excess of acid. Each lamella presents numerous nuclei, which are not embedded firmly in the membrane, and are readily detached by the action of the acid. The internal surface of the capsule is provided with ciliated epithelium, the cilia being in some cases nearly three times the length of an ordinary amphibian blood-vessel.

THE LYMPHATIC VESSELS.—Herr Langer has published the second part of his memoir on this subject. In it he describes how the employment of nitrate of silver solution enabled him to trace out the course of the lymphatic capillaries in reptiles. He considers that there can be no doubt as to the possession by these vessels of a distinct wall. In the case of the lymphatics of the testicle the lymphatic vessels may be easily isolated, and their walls are then distinctly seen. Herr Langer thinks that he has discovered that a system of blood-vessels, hitherto unnoticed, exists within the skin of batrachia.

A VIVISECTION IN THE GOOD OLD TIMES.—An archer of the guard of Louis XI. who had been condemned to death was handed over to the Paris Surgeons in order that they might open his body while living, in search of the cause of a calculous affection of which he was the subject. The poor devil, having survived this formidable operation, received the royal pardon.—*Union Méd.*, Nov. 5.

MUSTARD PAPER.—M. Rigollot, a Paris pharmacien, has, under the name of *papier sinapisé*, contrived an elegant preparation which embraces all the advantages of the mustard cataplasm without incurring the risk of its inefficiency, owing to the loss of power in the flour of mustard. He has done this by extracting the fixed oil while retaining the rubefacient principle. A piece of the paper of the required size is put in water for a few seconds and placed wet on the part, whereon it is bound with a handkerchief. It does not cost more than the ordinary mustard plaister, and is always ready and promptly efficacious.—*Bull. de Thérapeutique*, Sept. 30.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Infelix.—Cantharidine pomade

Indignans, Birmingham.—Three-fourths of the Hospital Surgeons in the provinces are doing the same thing. There is nothing *infra dig.* or unprofessional in it.

Inquirer.—Refer to Griesinger's "Mental Diseases" (New Sydenham Society's translation), pp. 252 *et seq.*, for a plain and sensible account of the condition of mind termed "melancholia with destructive tendency."

Vox et preterea nihil.—"What is the meaning of *ès* in the phrase *bachelier ès lettres*, etc.?" It is old French for *en les*, just as *des* is abbreviated from *de les*, and *aux* from *à les*, etc.? It is met with in Fontaine, Pascal, Voltaire, etc., but is now an old-fashioned term, and used only in jurisprudence and other technical matters.

R. R., M.D.—The infamous Marat was a Swiss Physician, and Miss Cornelia Knight, in her interesting autobiography, says of him "his person and countenance were very repulsive."

Dr. J. M.—The examinations for the Fellowship will commence next week. You will be examined on cases in Metropolitan Hospitals.

Dr. Richmond.—It was the celebrated statesman Canning who designated the *White Lodge* the *Villa Medici*, in allusion to Addington's nickname of the "*Doctor*," the father of the latter statesman having long practised as a Physician.

L. S. A.—The late Sir James South, the distinguished astronomer, was a Member of the Royal College of Surgeons, and the elder brother of Mr. J. F. South, late President of the College. It was the father of these gentlemen who practised as an apothecary in the Borough; he was a most benevolent man, and a great admirer of the celebrated Pitt, and when the statesman was dying at Wimbledon we read in Jesse's "Memoirs of the Life and Reign of George III." that "at one o'clock a Mr. South arrived from town in a chaise bringing a vial of hartshorn oil, a spoonful of which he insisted on Mr. Pitt's taking, as he had known it recover people in the last agonies. Remonstrance as to its certain inefficacy was useless, and on Sir Walter Farquhar saying that it could be of no detriment a couple of spoonfuls were poured down the patient's throat; it produced no effect but a little convulsive cough, and in about half an hour Mr. South returned to town, but about 3 o'clock, having long been speechless, Mr. Pitt spoke in a clearer voice than before, and said 'O my country! How I love my country!'"

POISONOUS MEAT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you refer me to any well-authenicated published cases of disease caused by eating the cooked flesh of diseased animals, not including cases of trichiniasis? I am, &c. AN OFFICER OF HEALTH.

*** It is extremely difficult to say which of some reported cases are due to poisonous food, and which to trichiniasis. A tolerably good set of cases of sausage-poisoning were published some time ago by Dr. Tripe, of Kingsland, in the *British and Foreign Medico-Chirurgical Review.*

COMMUNICATIONS have been received from—

Mr. BERNARD; Mr. LEWIS; Mr. J. D. BROWN; Mr. NIXON; Dr. CONSTABLE; Mr. MOON; Dr. CREGEEN; AN OFFICER OF HEALTH; Dr. STEWART; Dr. SEDGWICK; Mr. POOLE; Mr. CARTER; Dr. HILL; Dr. MACCORMACK; INDIONANS; Dr. GRAHAM; Dr. MERRIMAN; Mr. FELDMANN; Mr. C. J. FOX; Mr. BIDDLE; INFELIX; Dr. GREEN; Dr. RADFORD; Mr. BERKELEY HILL; Mr. CHOENEVEN; Mr. REID; Mr. BEVERIDGE; Dr. SMITH; Mr. FAEEMAN; Dr. BALL; Dr. KINGSTON; Dr. DRUITT; Mr. F. J. GANT; Dr. W. D. MOORE; Mr. LAWSON TAIT; Dr. ALTHAUS; Dr. HUGHLINGS JACKSON; Mr. J. HUTCHINSON; Mr. CHATTO.

BOOKS RECEIVED—

Moore on Sclerodermia—Liverpool Medical and Surgical Reports, vol. i.

NEWSPAPERS RECEIVED—

Medical Press and Circular—Leader.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 9, 1867.

BIRTHS.

Births of Boys, 1137; Girls, 1033; Total, 2270.
Average of 10 corresponding weeks, 1857-66, 1891·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	643	552	1195
Average of the ten years 1857-66	657·6	630·3	1288·4
Average corrected to increased population..	..	..	1417
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	468,388	2	6	3	1	9	5	1	3
North ..	618,210	2	15	15	1	3	10	3	..
Central	378,053	1	1	11	1	3	5	4	..
East ..	571,158	2	8	4	2	6	10	0	1
South ..	773,175	2	7	8	3	6	12	7	1
Total ..	2,803,989	9	37	39	8	27	42	21	5

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·321 in.
Mean temperature	41·9
Highest point of thermometer	53·5
Lowest point of thermometer	30·2
Mean dew-point temperature	38·8
General direction of wind	W.S.W.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 9, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Nov. 9.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Nov. 9.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall.* In Inches.	Rain Fall.* In Tons per Acre.
London (Metropolis)	3082372	39·5	2270	1421	1195	53·5	30·2	41·9	0·00	0
Bristol (City) .	165572	35·3	107	74	162	53·5	27·8	40·6	0·00	0
Birmingham (Boro')	343948	43·9	251	167	149	55·0	30·7	42·7	0·02	2
Liverpool (Borough)	492439	96·4	400	285	245	53·3	35·5	44·2	0·00	0
Manchester (City) .	362823	80·9	237	205	1184	53·0	31·2	41·5	0·06	6
Salford (Borough) .	115013	22·2	70	58	59	52·5	31·0	42·2	0·02	2
Sheffield (Borough) .	225199	9·9	163	119	102	55·0	32·6	42·8	0·00	0
Leeds (Borough) .	232428	10·8	218	118	109	57·0	27·0	43·2	0·00	0
Hull (Borough) .	106740	30·0	93	49	58	56·0	27·0	41·5	0·01	1
Newsti-on-Tyne, do.	124960	23·4	114	66	69	54·0	34·0	44·3	0·12	12
Edinburgh (City) .	176081	39·8	124	85	92	52·7	32·0	43·2	0·00	0
Glasgow (City) .	440979	87·1	381	257	232	54·6	29·0	44·4	0·03	3
Dublin (City and sons suburbs) .	319210	32·8	179	157	150	54·2	25·7	43·4	0·10	10
Total of 13 large Towns . .	6187764	34·8	4613	3061	2706	57·0	25·7	42·8	0·03	3
					Week ending Nov. 2.	Week ending Nov. 2.				
Vienna (City) .	(1863) 560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·321 in. The barometrical reading increased from 30·10 in. on Monday, November 4, to the very high reading of 30·47 in. on Saturday, November 9.

The general direction of the wind was W.S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 48·5°.

APPOINTMENTS FOR THE WEEK.

November 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. A. E. Sansom, "A New Process of Demonstration of Microscopic Specimens by the Lime-light." Dr. Althaus, "On the Treatment of Tumours by Electrolysis."

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Chapman, "On Neuralgia."

22. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE ACTION OF NARCOTISING GASES AND VAPOURS.(a)

GENTLEMEN,—The practice of anæsthesia, general and local, while it has proved one of the most beneficent of blessings hitherto conferred on the world, has led to contemplations and promised results not less important for the future than the practice itself has been in so far for the past. The study of anæsthetic substances, in fact, opens for the first time in the history of Medicine a means for the strict and exact investigation of the action of all those substances which we commonly call remedies, and which we, in one way or another, employ for the purpose of removing, relieving, or preventing disease. The phenomena which proceed from the administration of anæsthetics are rapid, decisive, certain: we know, in using an anæsthetic, that we are really effecting a change, or a series of changes, on the organism; we are controlling the engine; we are as certain in our art as the Surgeon in his, and thus there is presented to us for observation a perfectly tangible subject—a subject eminently experimental as well as practical. Moreover, the subject widens as it is pursued. For a time we are wont to look upon it as confined to itself simple; after a time we see that a great deal is included of which at first we did not think. Dealing with one physical agent, we see extension of action and of principle to other agents which at first sight appeared to the last degree obscure in action. Thus gradually the ranges of therapeutical science come slowly before the eye, very distantly truly, and doubtful often whether as mirage or as reality, but always with bewitching enticement to proceed with hope and courage and success.

In my last lecture I took up one particular remedy amongst the class of anæsthetic bodies, and used that as a text to illustrate the practical character of anæsthesia. In the present lecture it is my object to take up the theoretical study, the principle of advance; to indicate, however briefly, the physical track in therapeutics to which I have drawn attention, and to introduce, as tending to this end, not one particular anæsthetic, but the whole group or family—or, at least, fair representatives of the whole group or family—of true anæsthetics. In order to proceed with our research in a plain and systematic manner, I have asked my friend, Mr. Nutt, to draw up the very comprehensive table which hangs before us. In constructing the table I have been most ably advised and assisted by Dr. Versman, whom I have to thank for much hearty and valued assistance in these researches.

The table, as you will observe, presents, in five columns—1. A classified list of anæsthetics; 2. Their composition by symbols; 3. Their properties in relation to combustion; 4. The boiling-point in cases of fluids; 5. The density of gas or vapour.

Anæsthetics.

NAME.	SYMBOL.	PROPERTIES.	BOILING-POINT FAHR.	GAS OR VAPOUR DENSITY. HYDROGEN = 1.
NITROUS OXIDE GAS	N_2O	Supports combustion	—	22
CARBONIC OXIDE GAS	CO	Burns in oxygen	—	14
CARBONIC ACID GAS.	CO_2	Prevents combustion	—	22
LIGHT CARBURETTED HYDROGEN GAS } HYDRIDE OF METHYL OR MARSH GAS }	CH_4	Burns in air	—	8
METHYLIC ALCOHOL	CH_4O	Vapour burns in air	151	16
METHYLIC ETHER GAS	$(CH_3)_2O$	Burns in air	—	23
CHLORIDE OF METHYL GAS	CH_3Cl	Same	—	25·25
BICHLORIDE OF METHYLENE	CH_2Cl_2	Same	88	42·5
TERCHLORIDE OF FORMYL (CHLOROFORM)	$CHCl_3$	Vapour extinguishes flame	142	59·75
TETRACHLORIDE OF CARBON	CCl_4	Same	172	77
HEAVY CARBURETTED HYDROGEN GAS } OLEFIANT GAS, OR ETHYLENE }	C_2H_4	Burns in air	—	14
ETHYLIC ALCOHOL (ABSOLUTE ALCOHOL)	C_2H_6O	Vapour burns in air	172	23
ETHYLIC ETHER (ABSOLUTE ETHER)	$(C_2H_5)_2O$	Same	92	37
CHLORIDE OF ETHYL	C_2H_5Cl	Same	52	32·25
BICHLORIDE OF ETHYLENE (DUTCH LIQUID)	$C_2H_4Cl_2$	Same	175	49·5
AMYLIC ALCOHOL (FUSEL OIL)	$C_5H_{12}O$	Same	270	44
HYDRIDE OF AMYL	C_5H_{12}	Same	86	36
AMYLENE	C_5H_{10}	Same	90	35
HYDRIDE OF CAPROYL (LIGHT PETROLEUM SPIRIT)	C_6H_{14}	Same	154	43
BENZOL	C_6H_6	Same	180	39
TURPENTINE SPIRIT	$C_{10}H_{16}$	Same	320	68

Compound Anæsthetics.

CHLORIDE OF METHYL IN ETHER.

CHLORIDE OF METHYL IN CHLOROFORM.

(a) Delivered on Tuesday, November 12.

Before we proceed to details of action, let me first ask your attention generally to the facts put forward in this tabular outline of anæsthetics. You will observe, by reference to the first and second columns, that a small number of the substances tabulated have no systematic position or classification amongst bodies of a series; then occur several substances all belonging to one series, in which the element carbon plays its single molecular part; these are all monocarbons, and in them all, with one exception, chlorine forms also a combining element; next come a group in which the carbon molecule is doubled—dicarbons—including all the compounds commonly known as the ethers. From these we pass to higher groups, in which the carbon is greatly increased, reaching, as in spirits of turpentine, to a very high figure—10. Lastly, we have two compounds containing two anæsthetic substances in each: one a compound of chloride of methyl in ether, the other of chloride of methyl in chloroform. In this last compound, which has been made by Dr. Versman, the chloroform is saturated with the methyl gas, eight ounces of the fluid taking up nearly a cubic foot of the gas. We shall see by-and-by that this compound is intensely active in its properties as a narcotic.

In the third column there are noted, as you will see, the facts relating to the action of the different anæsthetic substances on the process of combustion. An important question of theory is involved in this point, particularly in regard to the hypothesis of the catalytic action of anæsthetics, which was briefly described in the last lecture. When I come to experiment I shall show, better than by the table, the properties of the typical forms of all the series in respect to their power of supporting or suppressing combustion, or of themselves undergoing combustion.

In the fourth column we have the boiling-point, on Fahrenheit's scale, of all those substances which exist as fluids under ordinary conditions of temperature. The figure in each case reports the absolute or theoretically absolute boiling-point, and presumes the most rigorous chemical purity of the fluid. In practice, the boiling-point is usually found in all specimens above the theoretical standard, often three or even four degrees. We shall find as we proceed that the boiling-point of a vaporisable narcotic fluid exercises the most marked influence over its applicability as an anæsthetic.

In the last column I have placed the specific gravity of each gas or vapour, and I wish you particularly to observe that in every case the calculation is based on the density of *hydrogen* as unity, not on air as unity. It was unfortunate that those who first took specific gravities of gases and of vapours calculated on the air, which is a compound substance, as unity. The proceeding was natural and almost inevitable, but it was not the less unfortunate, and it is time to reform it altogether. Now, by taking the gas hydrogen, the lightest of all the gaseous elements, as unity, according to the modern practice, we not only simplify figures, but we are enabled, by knowing the atomic and molecular construction of a body, to determine at once by a short calculation its gas or vapour density. We add together the value of each of its elements, and then dividing by 2, we have the density. Thus, to take the first substance on the table—nitrous oxide. The body is made up of two elements—nitrogen and oxygen, in the proportion of N_2O. The combining volume of nitrogen is 14, and therefore of two nitrogen 28. The combining volume of oxygen is 16. We add 16 to 28, which gives 44, and divide by 2, which yields us the product 22, which is the density of the gas nitrous oxide. We divide by 2 because the molecule of hydrogen, or smallest combining quantity, is made up of two atoms, and we have to base our calculation on atomic hydrogen as unity. And so for all the rest.

(To be continued.)

THE HEALTH OF LIVERPOOL.—During the past municipal year the deaths in Liverpool amounted to 14,489, giving a death-rate of 29·4 per 1000 inhabitants. This contrasts very favourably with the state of things the year before last, when the rate was 36 per 1000, while last year, owing to the epidemic of cholera, it rose to 41 per 1000. Thus, comparing the year 1865-66 with 1866-67, there has been a saving of between 4000 and 5000 lives. Much of this improvement must be attributed to sanitary measures carried out so energetically and in such an enlightened spirit by the Health Committee of the borough.

ORIGINAL COMMUNICATIONS.

CASES, MAINLY, OF DISEASE OF THE NERVOUS SYSTEM IN WHICH THE OPHTHALMOSCOPE WAS USED.

By JOHN W. OGLE, M.D.,
Physician, etc., to St. George's Hospital.

(Continued from page 546.)

Case 14.—*Locomotor Ataxy.*

JOHN H. P., aged 28, a painter and glazier, was admitted into the Hospital, under my care, May 1 in the present year. Eight years before he had had a chancre, but no secondary symptoms. Two years previously he had suffered from an attack of colic, with which he was laid up for two months, and four months before admission he began to feel weak in the knees, and to experience a feeling of numbness in the sole of the right foot. Three weeks before admission he had a fall from a height of about twelve feet on to the back of his head, and ever since had felt giddy, the other symptoms being exaggerated.

Symptoms on Admission.—There was numbness of the skin over the entire right foot, except at the upper part near the toes, the skin of the left foot in the region of the toes being also very deficient in sensibility. The sensibility of the skin covering other parts of the lower extremities was natural. He complained of a feeling of stiffness and of pain about the right knee. His walking was very peculiar, as he lifted his legs with a kind of spasmodic jerk, bearing all his weight on the heels. On shutting his eyes when walking he immediately complained of feeling giddy, and staggered, and had a feeling of "pushing forwards." No positive want of power to move the legs appeared to exist. He said he at times saw double. There was no loss of sexual power. He was treated by small doses of bichloride of mercury and cinchona bark, and with iodide of iron with occasional aperients. On the 14th he complained of weakness in the knees when walking, and on the 17th of numbness up the legs. On the 23rd he complained of a feeling of "walking in flannel, velvet, or something soft," and of more giddiness of the head. He was weaker after the warm bath, which he had several times. On examination with the ophthalmoscope, "*the optic nerves were found to be pale, and the choroidal pigment showed slightly through the retina.*"

He was subsequently treated with iodide of mercury, but there was no improvement, and he left the Hospital about June 6.

Case 15.—*Incipient Phthisis—Strabismus.*

Joseph G., aged 30, a painter, was admitted into the Hospital, under my care, June 19 of the present year. Five weeks before, he first felt ill, with rigors, cough, and pains about the joints and the head; five days before admission he began to spit blood.

Symptoms on Admission.—His aspect was pale; he had slight headache, and complained of general debility, and of a great tendency to perspiration. There was internal strabismus of the right eye; the heart's sounds were natural. The respiratory murmur generally was more deficient in the right lung than in the left, but the chest was resonant throughout. On examination with the ophthalmoscope, "*anæsarca of both retinæ was found, choroidal pigment showing especially near the optic nerves. The nerves themselves were somewhat ill-defined, as though there was œdema of the connective tissue or very slight deposit.*" He was treated with quinine and steel and cod-liver oil, and suitable expectorants and sedatives for the cough; but he did not appear to improve, and left the Hospital on July 3.

Case 16.—*Cardiac Disease—Giddiness and Numbness—Affection of Vision.*

Martha N., aged 32, a married woman, was admitted into the Hospital January 30, 1867, with dyspnœa and palpitation, which commenced six months previously, but for a month he had been getting worse. There was ascites, which appeared to have begun four months previously, and was then accompanied by pain in the right side, for which several mustard poultices were applied. The heart's action was feeble, quick, and irregular, and a systolic bruit existed at the apex. Air was found to enter but feebly into the posterior parts of both lungs at their lower parts, and some dry râles existed on both sides of the chest. The pulse was 110, feeble, and rather irregular;

the urine was albuminous. She was treated with acetate and nitrate of potash, squill, and cascarilla, a little gin, and fish diet, chlorodyne being given at bedtime, as well as bromide of potassium,(a) to procure rest. Subsequently digitalis was given, with the sweet spirits of nitre; and afterwards tincture of the perchloride of iron was given. After a time giddiness was complained of, and floating specks in the vision. The nitrate and acetate of potass were alone given.

Ophthalmoscopic Examination.—February 13: *Slightly increased tension of the globe of the right eye was found; also a slight extravasation of blood a little above the yellow spot of Soemmering lying in the course of a small vessel. The vessels were unusually large, and there was pulsation in them. There was no œdema of the optic disc, or any albuminoid deposit on the retina. In the left eye there was slightly increased tension, and the vessels were large and tortuous, and very slight pulsation was perceptible in them.*

On the following day numbness was complained of in the fingers of the left hand, and pain in the back of the chest.

On the 19th she was discharged.(b)

Case 17.—*Pains in the Head—Chronic Kidney Disease.*

The patient, a gentleman, aged 54, who had lived in India and been a very great smoker of tobacco. Twenty years previously he had had syphilis. He had lately lost strength and flesh, but experienced no particular pain in any part. For five or six months his eyesight had been very bad, having suddenly become so, and he complained that in the *dark*, on *looking upwards*, he constantly fancied he was looking at bright stars and other luminous objects. The urine was only 1010 sp. gr., and was loaded with albumen, and subsequently was found to contain numbers of hyaline, dark granular and epithelial "casts" of the uriniferous tubes, indicating very decided and chronic disease of the kidneys. Latterly the patient has suffered from hæmaturia.

Mr. Streatfeild examined the eyes by means of the *ophthalmoscope*, having dilated the pupils with atropine. He found that he had retinitis of both eyes, "*not characteristically indicative of albuminuria. The retinæ were beginning to show some white patches, and blood-effusions here and there, and were hazy and obscured, the retinal vessels being hidden in some parts. Both optic nerve entrances were very ill defined, and there was one very large hæmorrhage in the left retina. The retinæ seemed advancing to the degenerative stage.*" *The eyeballs were not hard. He complained of having had occasional pains in them.*

Case 18.—*Epileptic Attacks—Previous Injury to Cranium.*

The following case I saw through Mr. Streatfeild's kindness in December last. It was that of a little girl aged 10 years, who had had two slight attacks of an epileptic character, in which the *right* side was said to have been most affected. She had been the subject of convulsions when teething, but appeared to be a healthy merry child. Five or six years before we saw her she had had an injury, from a blow, to the head, which was attended by much swelling, but not by any abrasion of the skin; and on examination we found slight indentation of the bone on the right side of the skull halfway between the ear and the occipital protuberance. Since the accident she had had no unpleasant symptom until the epileptic attacks came on. The urine was free both from albumen and sugar.

Mr. Streatfeild was consulted for defective vision, especially of the right eye, and found on *ophthalmoscopic examination* that the retinæ were healthy, but that in the case of the right eye the "*blood sometimes seemed to be stayed in the veins, and then would temporarily overcome the cause of the arrest for a beat or two of the pulse. The eye was not appreciably harder than it should be, or than the opposite eye was.*"

Tonics were prescribed for her, and Mr. Streatfeild informs me that in a few weeks it was stated that her vision was much improved, but that he had seen nothing more of the patient.

Case 19.—*Pain in the Head, Face, and Nose—Amaurosis—Strabismus.*

The following case I had the opportunity of seeing through the kindness of Mr. Wordsworth. The patient, E. C., a haberdasher, aged 34, was a pale, thin person. He gave me the following history of himself. He had been living in aguish and rheumatic districts, and had lately lost flesh, but himself had never had ague. He had been married three years, and before marriage had been much subject to spermatorrhœa. He had been the subject also of "rheumatic" pains in the shoulders. Nine months before I saw him he experienced pain at the right side of the head, and slight fever, lasting for a week. The right temple was mainly affected, the pain extending to the right nostril and cheek. His memory was at that time affected, and he was very weak, as he thought, owing to want of rest, the result of constant pain. This incapacitated him from work. He said that six weeks previously he first found the sight of the *right* eye growing dim; the sight of the *left* eye had previously been rather weak, but latterly it had grown stronger. He stated that his mother had been subject to the same kind of pains, and that his father and one brother had been asthmatic.

I found that there was very slight external strabismus of the *right* eye, which was quite wanting in the power of vision. The pupil of this (the right) eye was very much dilated, and almost entirely insensible to the influence of a strong light. Excepting that he had not power to move the right eyeball towards the nose quite as completely as he ought, the movements of the eye were perfect. The appearance and movements of the other (the left) eye and its pupil were quite natural. There was no ptosis and no deficiency of power in any of the muscles of the face or of the limbs, and the sensibility of the skin over the entire surface of the body appeared to be natural. Hearing, smell, and taste were unaffected. The urine was of a low specific gravity, but free from albumen and from sugar. There was no anasarca, and no trace of disease was discoverable in any of the abdominal or thoracic organs.

Ophthalmoscopic Examination.—Mr. Wordsworth found "a peculiar change in each optic nerve and in the condition of the central artery and veins. The antero-posterior axis of the globe was somewhat shortened in the right eye, apparently by the projection of the nerve entrance into the fundus. Very slight pressure in the globe completely arrested the circulation through the retinal vessels."

(To be continued.)

(a) I may say that I did not find any sedative effect in this case to arise from the use of the bromide.

(b) I have to thank Mr. Rouse for examining the eyes of this and the two previous cases.

ON THE

PREVALENCE OF CHOLERA IN INDIA ACCORDING TO SEASON, AND ON SOME POINTS IN ITS ETIOLOGY.

By JOHN MACPHERSON, M.D.,
Inspector-General of Hospitals (Retired).

One great characteristic of cholera in India is that in every place it has its favourite season of prevalence. It may, indeed, break out exceptionally at almost any period of the year; but every district has its usual time for its epidemic diffusion. As early as we have any notices of disease in India we have accounts of cholera, and these earliest notices mention its seasons of prevalance. On the west coast, we are told by D'Orta at Goa, in 1563, that June and July were its chief seasons, and only last year there was a frightful outburst on the Malabar coast in June, July, and August. Two centuries afterwards, Fra Bartolomeo writes that further down the coast, and towards Cape Comorin, the usual time of prevalence was after the rains in October, November, and December. This is true to this day; just as April, in which we first hear of an epidemic in Bengal in 1781, continues to be the worst season for cholera in that part of India.

Elsewhere (a) I have investigated pretty fully the seasons of its maximum and minimum prevalence in Calcutta. I now propose examining them in some other parts of India, and first in the town of Bombay. For many years we have had its Mortuary tables, which we owe to Dr. Leith, and which, if not very perfect, are superior in accuracy to the rough materials which alone were available for Calcutta. Unfortunately, it must still be said of Bombay, as of Calcutta, that there has been no very satisfactory census. Its population is also said to be very fluctuating, being considerably larger in the early portion than in other periods of the year. Although these returns would have been of more value if the census had been more complete, still, such as they are, they yield some unmistakable results. The following tables show the deaths by cholera during a period of fourteen years, and their distribution throughout the year:—

(a) *Medical Times and Gazette*, vol. i. 1866—"Cholera in its Home."

TABLE I.—*Deaths by Cholera in each Month of Fourteen Years in the Town of Bombay.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths	Annual Rainfall.
1851	—	995	1013	601	373	339	73	37	25	19	20	267	3612	96·09
1852	408	9	160	271	149	151	165	66	19	10	6	24	1441	69·26
1853	23	3	13	4	16	9	6	6	6	250	571	240	1148	62·48
1854	60	299	372	724	520	950	317	68	14	11	9	9	3507	82·13
1855	154	22	22	302	585	273	167	52	75	46	21	20	1623	41·80
1856	459	266	241	358	280	197	89	22	19	38	40	142	1816	65·93
1857	19	165	306	363	249	302	157	86	32	31	18	13	2171	51·18
1858	9	9	8	15	11	9	5	8	11	6	7	7	115	61·45
1859	289	10	9	7	69	84	320	170	41	85	131	282	1985	77·51
1860	61	332	399	321	163	107	89	128	51	47	29	4	1961	61·60
1861	15	18	5	4	12	18	15	10	11	34	35	466	641	75·91
1862	625	240	394	260	367	218	117	95	161	272	201	269	3070	74
1863	189	50	89	161	153	161	412	240	178	181	176	319	4152	77·23
1864	622	401	802	680	837	895	371	351	232	88	137	431	4847	45·96 or 57·40
1865	363	—	—	—	—	—	—	—	—	—	—	—	4588	—
1866	—	—	—	—	—	—	—	—	—	—	—	—	324	—
Totls	8296	2729	3270	4032	3784	3972	2312	1330	876	1118	1411	2633	—	—

TABLE 2.—*Deaths by Cholera in different Months in Bombay, with Mean Temperature, Mean Rainfall, and Humidity.*

	Deaths.	Mean temperature.	Range of temperature.	Rainfall.	Humidity
		Degrees.	Degrees.		
January	8296	74	14·4	—	75
February	2729	76	14·3	—	73
March	3270	80	13·0	—	73
April	4·32	83	11·9	—	76
May	3784	86	10·9	0·5	76
June	3972	83	8·7	22·7	69
July	2312	81	6·8	24·5	85
August	1339	81	7·2	12·4	85
September	875	80	8·4	10·6	87
October	1118	82	11·1	1·7	78
November	1411	79	13·5	0·3	78
December	2638	76	14·3	—	69

On examining these tables we are at once struck with some general points of resemblance between Calcutta and Bombay. In both the maximum prevalence is in the hot weather, and in both the minimum prevalence is in the rains. In both it is not immediately after the first fall of rain that the great diminution takes place, but a little after, when the soil must be thoroughly saturated with wet, when the humidity of the air is greatest, and when the range of temperature is smallest. In both there is an increase in October, when the rains have ceased.(b)

We are told by the Bombay authorities that the regularity of the prevalence of cholera is interfered with by the influx of fresh infection in July and August and in December from the Deccan connected with religious pilgrimages; but nevertheless, in Bombay, as in Calcutta, the first half of the year produces more than twice as many cases as the second—January to June, 21,093; July to December, 9690. We have nearly the same result if we contrast the seven months in which there is no rainfall (21,155) with the five in which there is rain (9516), or take the four months July, August, September, and October, in which we may presume that the soil is saturated with moisture: they yield 5544 cases against 24,827 for the other eight months. I find also that the minimum prevalence of cholera in September coincides with 87, the maximum of humidity, whereas the maximum prevalence of cholera is in the months of March, April, May, and June, when the humidity is least, being 73, 76, 76, 69.

Perhaps the great resemblance between Calcutta and Bombay in the season of cholera prevalence will be best illustrated by the following tables, which show also the leading differences of their climates. There are many more months in Bombay in which there is no rainfall than in Calcutta—its cold season is warmer than that of Calcutta, and its hot season not quite so hot, and during the rainy season the rainfall is much heavier than in Calcutta.

Dividing the year into three periods of four months each,(c) the meteorological phenomena and the deaths are thus distributed:—

	Hot season.	Wet season.	Cold season.
Bombay.			
Average monthly rainfall, inches	0·15	17·55	·5
do. humidity of air	73·9	82·6	74·2
do. temperature of air	82·1°	82·1°	77·0°
Range of temperature	11·8°	8·0°	13·8°
Proportional prevalence of cholera in decimals	2·60	1	1·3
Calcutta.			
Rainfall inches	2·6	12·2	1·49
Humidity	70	83·7	68·7
Temperature	84·6°	83·5°	70·7°
Range of temperature	14·3°	6·5°	15·3°
Proportional prevalence of cholera	2·78	·88	1·57

I think that without pushing the interpretation of these facts to their extreme limits, still they point at some obvious results.

The last two columns of Table I. show the total annual deaths in different years and the total annual rainfalls.

It is very curious to observe to what an extent the prevalence of cholera in different years varies in Bombay; it varies far more in Bombay than in Calcutta; it seems sometimes on the point of dying out in the former city, though never in the latter. We are told that in 1849 only six deaths occurred in the first half of the year, although there was a severe epidemic in the latter half. In 1858 there were only 115 deaths; in 1864, as many as 4847. I regret to observe that cholera was for a time greatly on the increase, the years 1862 to 1865 inclusive having produced 16,657 deaths, or nearly as many as the deaths of the eleven previous years, which amounted to 17,950. The population of the city, however, has at the same time greatly increased, and the returns for 1866 show a striking diminution of mortality, the deaths in that year having been only 324.

The last column of Table I is worthy of being noted in another point of view. According to one of the propositions of a modern popular theory, unusual falls of rain should be followed sooner or later by an unusual development of cholera. But this table affords no indication of any such law. The greatest rainfall—that of the year 1851, 96·09 inches—is followed by a year of moderate mortality—1441 deaths. The two years of minimum rainfall, represented by 41·80 and 45·96, yield such very different numbers of deaths as 1628 and 4847. The year of unusually small prevalence of the disease, 1858, followed a season when the rainfall had been 51·18. In short, it appears to be impossible to trace any connexion between the total amount of annual rainfall and the subsequent occurrence of cholera. I have examined the Calcutta rainfalls, with a like result. Nor in my hands does an examination of the monthly rainfalls yield a different result, though they may be open to different forms of interpretation in the hands of others.

Before leaving Bombay, it would have been interesting to anawer satisfactorily the inquiry what effect on cholera the new supply of good drinking water has produced. There is no question that cholera distinctly increased in Bombay after pure water was brought to it from a distance. That the supply of better water should not have immediately shown its good effects is said to be explained by the fact that the natives at first availed themselves of it to a very small extent. Much has been done during the last year to clean the native town, and last year there was a wonderful diminution in the amount of cholera; but the health officer, Dr. Hewlett, with very proper caution, advises us not to assume that the two are necessarily cause and effect.

The more general facts to be gathered from the Bombay and Calcutta returns are, the maximum prevalence of cholera during the hot weather and its minimum prevalence during the rainy season. These facts are, I believe, of very general application, and they might be still more strikingly illustrated by returns of troops and of gaol prisoners from other places in about the same latitudes, because, in places which do not suffer all the year round from cholera like those two cities, the season of epidemic prevalence is more strongly marked.

In Lower Bengal, and as high as Dinapore and Benares, the hot weather is the great season of prevalence; so also is it believed to be south of Calcutta for at least some distance beyond Cuttack. If we look at Bombay returns, we find cholera prevailing in Kolapore, Baroda, Sholapore, Doolia, etc., and often with great violence in Surat every hot season; also at Indore. There are indications of this season of the year

(b) Though I have not thought it necessary to make it appear in these tables, the season for small-pox and measles is the beginning of the year, and the hot sea-on, in Bombay as in Calcutta, they disappear in the rains.

(c) Hot—Half of February, March, April, May, half of June. Wet—Half of June, July, August, September, half of October. Cold—Half of October, November, December, January, half of February.

being the favourite one in the Persian Gulf and in Arabia, and even as far south as the new French settlement of Saigong. In short, the common view that heat, and probably dry heat, favours the spread of cholera is very generally true. But there are also some marked deviations from this rule in Northern, in South-Western, and in Southern India.

Those in Northern India have attracted most attention, owing to the violence of the epidemics a few years ago among European troops. This led to the appointment of a Cholera Commission, which pointed out very distinctly the difference of the season of epidemics of cholera in Lower Bengal and in the upper provinces, and especially their occurrence in the latter during the rainy season. It is, however, by no means to be supposed that cholera does not frequently prevail in the North-West of India in the hot weather; it has often occurred at Cawopore in April. The famous outbreak of 1782 at Hurdwar was in that month, and I learn from the newspapers (May, 1867) that a great outbreak has again taken place there in the same month, and is ravaging the higher portions of the North-Western provinces.

Mr. Bryden's admirable statistical returns, published by the Government of India, show the amount of mortality among European and native troops and gaol prisoners from epidemics in the North-Western Provinces during the rains for some years past; but perhaps the following table, compiled from larger ones by Dr. J. Murray, who has so long and zealously studied the subject of cholera, will present the best picture of the average prevalence of the disease in the North-West. His numbers are not large, but they extend over a considerable series of years, and include natives as well as Europeans.

Table showing the Mortality of European Soldiers from Cholera at Agra for 1857-65, and of Native Prisoners for Nine Years.

	Europeans.	Natives.	Total.	Rainfall one year.	Average temperature of Futtyghur.	Humidity of Meerut.
January .	..	..	..	1·2	57	77
February .	1	..	1	1·1	63	73
March .	2	..	2	..	74	69
April .	3	..	3	0·2	85	40
May .	3	3	6	0·7	90	53
June .	69	167	236	9·3	95	59
July .	97	137	234	9·8	87	77
August .	100	214	314	10·0	85	64
September .	45	10	55	4·0	84	80
October .	1	2	3	0·6	75	84
November .	4	..	4	..	69	78
December .	..	..	..	..	58	62

I regret that the meteorological data for Agra are so imperfect; still the next best I could find are given, and they give a general notion of the climate of the North-West. We here observe that not only does the disease occur later in the year, but that its maximum intensity is during the rains. However, it may be remarked how high the temperature of June, July, and August is—95°, 87°, 85°—that the rains are one month later in setting in than in Lower Bengal, that the total amount of rainfall is more than one-half smaller, and that there are even here signs of the cholera declining when the earth is fairly saturated in September, and, indeed, the maximum humidity of the air is not reached till October, when the cholera is gone. In the North-Western Provinces the maximum prevalence is in June, July, and August, and epidemics have but rarely occurred as late as September. In the Punjaub the season of prevalence is somewhat later than in the North-Western Provinces.

The almost complete immunity of the North-Western Provinces and of the Punjaub from cholera during the cold weather must not be overlooked. Epidemics at that season are unknown, and even sporadic cases are extremely rare. The occurrence of the latter last winter was quite exceptional, and they doubtless prepared the way for the outbreak this year at the Hurdwar fair.

Other exceptions to the usual season for cholera, though evidently connected with local climate, still with their causes not fully explored, occur in the eastern part of Lower Bengal, on the Malabar and the Coromandel coasts, and also further south. Cholera is very frequently epidemic in the Dacca district in the early part of the cold weather. The influence of the monsoon on the Malabar coast is very marked; there cholera seems to occur mainly in June, July, and August, while the cholera season in like manner at Madras is later in the year than it is higher up the coast.

It would be desirable to have complete returns, extending over a considerable series of years, for Madras or some station near it; but I have not come on any very perfect returns. Those for the town of Madras extend over a very few years; from them it appears that the mortality of late years has been in 1862, 3635; 1863, 1654; 1864, 574; 1865, 944.

Probably August is one of the months of chief prevalence in Madras, though its seasons are not so marked there as in the northern parts of India. In the year 1863 it was remarked that cholera was never absent from Madras except in a few weeks of June, although there were no great outbreaks of the disease. Proceeding still further south and towards Cape Comorin—where, by the way, the total rainfall becomes, as compared with the Western Coast, small, 28 inches in the year—we find the cholera season still later, running into November and December.

One additional remark must be made respecting the diffusion of cholera—that in many parts of India cholera seems to have a distinct tendency to appear at two seasons of the year, about April and again about October, the epidemics at the earlier period being by far the most extensive. Mr. Bryden has observed a third period of increase. This subject is particularly worthy of further investigation.

The facts just detailed respecting the prevalence of cholera, according to season, may be thus briefly summed up. The heavy rainfall in the greatest part of India takes place during the months of June, July, August, and September. There is scarcely any rainfall (a little about January) in the other eight months. The greatest heat is in March, April, May; the greatest cold in December, January, February.

The chief prevalence of cholera between about the latitudes of 26° to 18° N., a band including the largest part of India, is in the months of March, April, and May, the hottest months of the year, and four or five months after the rains have ceased. The exceptions to this are in the North-Western Provinces and in the Punjaub, where cholera epidemics are most frequent in July and August, and in the extreme South, where they are usually still later in the year. Where there is considerable cold in the cold season, as in the Punjaub, cholera is very unusual. Where there is little depression of temperature, as at Trichinopoly, cholera is common at that period of the year. It is extremely unsafe to generalise while our data are so imperfect; but I think we have indications of general laws such as the following:—

That great heat affords a most favourable condition for the spread of cholera.

That although a few showers or slight rainfall may not materially affect the disease, heavy continuous rainfall does check it.

That cold is very decidedly inimical to the spread of the disease.

I am unwilling to dogmatise further on the subject, but enough has, I think, been said to show, by a more definite examination of meteorological facts than has hitherto been made, that season is a very important factor in the propagation of cholera—a proposition often asserted and often denied. It might, perhaps, have been better to have elaborated these notes, but I trust that they may be useful in their present state, as they may help to make local observers study the subject in detail, and with a minuteness and accuracy of observation that have not till recently been brought to bear on the subject.

(To be continued.)

NOTES ON SCRIVENER'S PALSY.

By HENRY CHARLES ANDREWS, M.D.

This peculiar form of paralysis having been ably brought under the notice of the Profession by Mr. Solly, of St. Thomas's Hospital, with a request from that accomplished Surgeon that other Practitioners would contribute any facts bearing on the affection which they might be able to collect, I am induced to place on record the notes of two cases which have occurred amongst my patients.

E. T., aged 38, six feet in height, with rather slight configuration of body and dark hair, consulted me respecting numbness of the fingers of the right hand in November, 1864. He was married, and the father of two healthy children; he resided in a northern suburb. A man of good commercial education, he was quick at calculating, and during the preceding five years had been a clerk engaged in balancing extensive accounts. Was formerly a grocer, and employed in that capacity for twelve years. Parents both dead, the father having died of erysipelas, and the mother from an attack of peritonitis. His symptoms

consisted of numbness and a very tremulous condition of the right hand and arm. He complained of great awkwardness in taking his meals, and of being incapable of holding a cup of tea. There was slight ptosis of the left eye, and the tongue protruded a little towards the right side. Could speak with distinctness, and able to utter a whistle. Wrote very legibly, although extremely slow in using the pen. General health good. Appetite satisfactory. Tongue clean, and the various secretions in a normal state. Pulse 80, soft and compressible. The symptoms being evidently those of scrivener's palsy, I made further inquiries of the commencement of the attack, and found it to be of recent origin. But little treatment had been adopted beyond occasional shocks from a galvanic battery, which had been given at the suggestion of a Medical friend. I prescribed a steel tonic and some pills containing one-sixteenth of a grain of strychnine twice a day, and, with a view to promote muscular action of the arm, ordered a stimulating liniment to be rubbed in night and morning. This treatment, modified by circumstances, was continued for some months with slight benefit. In June, 1865, his case became complicated by an attack of piles, which were relieved by saline aperients and local remedies, and he resumed his employment. About the middle of July, I was summoned hastily to relieve most severe spasm of the sphincter, which had occurred after defecation and continued several hours. On examining the rectum, I discovered a fissure and advised an operation, since nothing short of an incision would be likely to effect a cure. This proceeding was at first objected to; but, the suffering becoming intense, he consented to a consultation with Mr. George D. Pollock, and finally to an operation by that gentleman, who at once divided the sphincter, when no further discomfort arose. During the autumn he had the advantage of change of air, and a trip to one of the Channel Islands for a fortnight. More recently he stayed three weeks at Egham, near Runnymede. Towards the end of October, the palsy being but little improved, I requested to have the opinion of Mr. Solly, who confirmed my diagnosis of the nature of the case and ordered steel medicines with strychnia; at the same time the patient was recommended to learn to write with his left hand, and obtain partial leave of absence from his office. On April 5, 1866, it was deemed advisable to change the medicine, and four grains of hyposulphite of lime were ordered to be taken in glycerine twice a day, along with perfect rest from business. But little change occurred during the first six months of 1866 In June, 1866, he spent a month in the Isle of Wight, and made some attempts to acquire the habit of writing with the left hand, in which, however, he was unsuccessful. In July, 1866, at the suggestion of Mr. Solly, four grains of bromide of iron were taken twice a day, and continued some time. It was not followed by any marked benefit, and he appeared depressed in spirits at being unable to pursue his usual life of industry. Finding it necessary to throw up his engagement in London, he decided on obtaining a situation in the country. I have not had an opportunity of seeing him during the present year, but am informed his general health is good, and that there is but little improvement in the palsy.

The following case was of a temporary character, and resulted in complete recovery: —

T. S., aged 33, of average stature, married, and the father of three children. Had always enjoyed good health, but had met with an accident during childhood, when his fingers were severely chopped by a hatchet, and it became necessary for the middle finger to be amputated. Had been employed as a clerk since the age of fifteen, and was an extremely rapid writer, as well as an adept at short-hand. In November, 1864, he suddenly lost the power of using the index finger of the right hand, and felt so much numbness in the thumb and middle finger that he was compelled to suspend the duties of his vocation. Being a small eater of animal food, I advised him to take more nutritious diet, and under the influence of absolute rest, together with suitable corrective medicine and tonics, with a stimulating embrocation rubbed into the arm, rapid improvement took place. He was able to resume his post in three weeks, and I have recently ascertained that he has had no relapse since that time.

1, Oakley-square, London, N.W.

Permutations at the Paris Faculty.—M. Jarjavy, Professor of Anatomy, has been appointed Professor of Clinical Surgery at the Hôpital des Cliniques; and M. Richet, Professor of Surgical Pathology, has been appointed Professor of Clinical Surgery at La Pitié.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

New Post-mortem Theatre—The Pathologists' Room—Specimens from a case of Burn—New Appointments—Special Departments—The Physicians' Room—Double Binaural Stethoscope—Blister Treatment of Rheumatism—Chorea—Pericarditis—Embolic Affection of the Spinal Cord—Chorea with Constipation—Treatment of Rheumatism by Mineral Acids—Epileptiform Neuralgia—Treatment of Chorea by Richardson's Ether Spray to the Spine—Obesity—"Ataxy"—Spinal Palsies—Treatment of Diabetes by Permanganate of Potash and Cannabis Indica—Hæmorrhagic Phthisis.

In the early part of this year we placed before our readers a report from this Hospital, referring chiefly to Surgical matters. We are now able to show something of the doings on the Medical side.

A new post-mortem room has a few months ago been added to the Hospital, and is on a very large and elaborate scale. The school owes this alteration to the liberality of the Committee. During the cholera time the inconvenience of the former slight accommodation was much felt. The present room was formerly the anatomical theatre of the old school. It is lofty, somewhat circular in form, having a dome-shaped roof, and is lighted from above and on one side. In one half of the circle are seats railed off for the students, and in the centre of the room is the table, which is large, and capable of holding three bodies at once. It moves on a ball-and-socket joint, worked by a wheel, for the purpose of tightening or loosening it. With the table is connected a machine for weighing the bodies, situated at some distance from the table, and worked by a lever, on the same principle as a coal-weighing machine. It weighs to half a pound very accurately, and is a valuable addition to the post-mortem room. The room is worth inspection. There is a desk, drawers, hot and cold water, fireplace, etc. Next to this theatre is a large room which is being fitted up for the pathologists. The Committee have agreed to supply a good microscope for use in this room, and have left the fitting up of the room to the taste of the Pathologists, they (the Committee), of course, paying for what is done.

While in the post-mortem Dr. Sutton showed us some interesting specimens from a case of burn. The patient, a female adult, had been extensively burnt, and died in collapse within twenty-four hours of the accident. Dr. Sutton pointed out how closely the morbid appearances of the collapse from a burn resembled in many respects that of cholera. The left ventricle was firmly contracted, and contained scarcely any blood; the lungs were lighter than normal, on section they were dry and of a dark red colour; the intestine was strikingly pale throughout, and there was no ulceration The kidneys showed evidences of venous obstruction. He alluded to another case of a burn in which a patient had died a week after the accident, and had apparently passed out of collapse into an imperfect reaction. In this case the left ventricle was flaccid, and contained a quantity of blood, looking as if death had occurred from syncope or asthenia, and not from collapse. There was no trace of ulceration of the duodenum in either case, a change resulting in some cases from extensive burns, as Mr. Curling, one of the Surgeons to this Hospital, was the first to observe.

Two appointments have been made to the Medical out-patients. They are those of Assistants to the Assistant-Physicians. Gentlemen legally qualified are appointed for six months, and each of them is required to attend three days a week. They receive a small salary. Lately additions have been made, as we some time ago mentioned, to the out-patient department—namely, special departments for the eye, ear, and skin. We have in preparation a more detailed account of the practice in these three departments. It is to be observed that they are under the care of members of the ordinary staff, who are appointed to these special departments for a year only. Although those appointed need not resign their appointments at the expiry of that time, other members of the staff may apply to be appointed as additional Physicians or Surgeons to any one of the departments.

In order to explain the arrangement we have followed in the rest of this report, the reader must suppose that he goes with us on the round the visiting Physician usually takes. We begin at the Physicians' room, which the Committee, with their usual generosity, have fitted up (unfortunately only a small room was to be had) for the use of the Physicians. Besides washstands, etc., it contains fittings and apparatus for microscopical examinations, for mounting microscopical specimens, testing urine, etc. There is an excellent microscope, and there is a liberal supply of all smaller requisites for comfortable and quiet investigation. We saw numerous conical glasses containing urine and several plates of sputum awaiting microscopical examination. Theoretically, the use of the room is limited to the Medical staff and to the Resident Medical Officers. Before leaving this room to pass to the female ward on the same floor, we will mention that Dr. Davies visits the wards on Tuesdays and Fridays, at 9 a.m.; Dr. Andrew Clark visits the Hospital at 1.30 on Mondays and Thursdays. Dr. Clark usually, however, passes the first half-hour in the Physicians' room, in the examination of specimens of urine and sputum from patients about to be visited. Dr. Clark attaches much importance to the evidences which the microscopical examination of sputum gives towards the diagnosis of what is actually going wrong in the lungs in case of phthisis and other pulmonary diseases. Dr. Ramskill's days and hours are Wednesdays and Saturdays, at 1.30. Until the cholera time the cases of each Physician were scattered throughout the several wards, but now each Physician finds his cases, as nearly as possible, in separate blocks.

Dr. Clark has introduced a double binaural stethoscope into the wards, for the purpose of allowing his class to listen to cases whilst he is listening and describing. It seems to be extremely useful in teaching.

We come first to Dr. Davies's cases. We saw a young girl, about 19 years old, ill with rheumatic fever. She was seized about four or five days previous to admission after getting wet, and the usual symptoms soon appeared, nearly all her joints being affected. We mention the case simply as an illustration of Dr. Davies's plan of treatment, and the reader will find further on accounts of several other methods of treatment by Dr. Andrew Clark, Dr. Ramskill, and Dr. Sutton (see Dr. Davies's original memoir *Lond. Hosp. Reports*, vol. i., and a brief account of his method in our own reports, *Med. Times and Gaz.*, Jan. 7, 1865). As many as seven blisters were put on at once. The next day the joints, which had been previously hot, swollen, and tender, were comparatively free from pain; the blisters made them somewhat stiff; she could, however, move them very tolerably. By the time the blisters were healed, she could walk about, and no heart complication had as yet shown itself. The reader will readily see that when we are reporting different styles of treating rheumatism we can only give the cases to illustrate what different Medical men do for rheumatic patients. These brief reports of particular therapeutical proceedings must, then, be looked on as hints rather than as evidence. This case has done very well indeed, the duration (ten days) being shorter than in most cases of rheumatic fever. Dr. Davies remarked to his class that it is in young people with much joint effusion and acute fever (excepting pericarditis) that the blister treatment is of especial value. He recommends a free application—a band of about two inches across—of blistering fluid both above and below the affected joint. This should be followed, after a while, by the application of a linseed poultice, to favour the further exudation of serum. No drugs whatever are given unless the blisters are very numerous, and then a little morphia is prescribed.

We saw a case of chorea in a little girl, aged 8. This is the fifth attack, and the patient has a loud systolic murmur at the apex. This patient has not had rheumatic fever.

Chorea is a very common disease at this Hospital, and the association either with rheumatism or heart-disease is frequent. No case of rheumatic fever is ever sent away, whether the patient comes with or without a letter, and thus, perhaps, it may be that many of the patients who afterwards suffer chorea are brought to this Hospital. Many patients are admitted for a second or third attack of chorea. Mr. George Mackenzie, the resident Medical officer, tells us that chorea is frequent among Jewish girls. The favourite remedy for chorea in the out-patients' room is Fowler's solution. Several in-patients have been treated without drugs, and they have recovered. It is, however, obviously difficult to make brief statements precisely as to the effect or no effect of remedies on a disease like chorea, which is by no means a "constant quantity."

Omitting many cases of interest, we now pass into Dr. Clark's female wards, and here again we see rheumatic fever and a case in one of its worst forms, there being pericarditis. The patient was a woman, about 38 years old, and had had the complaint ten days before admission. The pericarditis was at once treated by the application of leeches to the cardiac region, and a saline mixture was given every four hours. She is better now, and the friction sound has quite disappeared, but a soft mitral regurgitant murmur is now to be heard, probably of old standing.

There is in the same ward a patient who is recovering from an obscure but probably embolic affection of the cord. She was seized a few days before admission, quite suddenly, while cutting some bread and butter, with complete loss of motion in the right arm. This extended, in a few hours, to the leg of the same side, and the next day the other side was affected in the same way. The face, tongue, and power of swallowing were impaired. She had paralysis of the bladder and rectum, and rapid sloughing of the nates. An apex systolic bruit was heard for two days after admission, and then disappeared. The case was a very severe one, recovery seemed hopeless, and, to those who had the opportunity of watching it, shows well the advantage of careful nursing, quiet, and Medical care. She is now—eight months after the attack—quite unexpectedly getting well. She can now walk, although the legs are somewhat wasted, and she can almost dress herself. The muscles of the hand and arm are very much wasted, especially the hypothenar eminence, and the last two fingers of each hand are contracted; the left arm is also somewhat contracted. It is feared that these local symptoms will remain.

There is also an interesting case of chorea affecting the right side, or rather a case of irregular movements of the right hand and arm, which seem to depend upon a confined state of bowels accompanied by abdominal pain. At least the accession of irregular movements has always been preceded by a pain over the sigmoid flexure, and constipated bowels. Dr. Clark took this view of the case, and ordered her a smart aperient, and afterwards the following:—℞ Acid. nit. mur. dil. ♏x., acid. phosphor. dil. ♏v., tinct. nucis vom. ♏x., inf. gent. co. ʒss., inf. calumbæ ʒj. Fiat mist. ter die s. She has had several attacks, but they have now left her almost entirely.

We next come to Dr. Ramskill's patients, and here again we see rheumatic fever. Dr. Ramskill generally treats these cases either by alkalies or by mineral acids, according to the state of the patient's urine. If the urine be acid, he gives alkalies in large and frequent doses; if alkaline, he gives mineral acids (generally dilute nitrohydrochloric in ten-minim doses, sometimes sulphuric in twenty-minim doses) every four hours, and, we are told, with the best results.

Here also, under Dr. Ramskill's care, is a very interesting case of what Trousseau has named epileptiform neuralgia. The patient is a woman of 38 years of age. The neuralgia commenced about two years ago, apparently from an alveolar abscess on the left side of the upper jaw, and the patient sometimes has epileptic fits. The pain affects the region of the first and second divisions of the fifth nerve, and while the attack lasts (about three or four seconds) the suffering is very great. The patient suddenly, without any warning whatever, is seized with agonising pain in her face and head. She instantly applies her hand to the spot, and, from having done so frequently, that side of the face looks somewhat pressed in; but there is no wasting of the masseter or temporal muscles. She has thirty or forty, or even more, attacks in the day. She has taken seven or eight grains of morphia daily without any alleviation of the symptoms. Latterly these attacks often precede the epileptic seizures. Dr. Ramskill ordered twelve ounces of rum a day, one ounce to be taken every two hours; no morphia is now given.

Dr. Ramskill has been treating two little girls suffering from chorea by the application of Richardson's anæsthetic ether spray, freezing the skin every day along the whole length of the spine. We may here remark that, in a lecture we had the pleasure of attending, we heard Dr. Richardson state that he had not succeeded in reducing the temperature of a thermometer placed in the spinal canal removed from an animal so little as one degree. Dr. Richardson used in this experiment, instead of ether, rhigolene, a fluid of a still lower boiling point than ether. However, the treatment appears to have been followed by improvement in the two cases in which Dr. Ramskill has tried it, and he intends to try it in more cases.

In the new wing we find among Dr. Ramskill's patients many cases of interest. There was a stout man, with a florid face, who was sent in for ascites. He has an abdomen of enormous size, though he is not strikingly stout anywhere else. The history he gives is as follows:—He says that his belly first began to swell about two years ago, after some accident to his shoulder, and that it gradually got larger and larger. He went to some dispensary, and after a little drug treatment he was tapped. At the operation, according to his story, some instrument was introduced, and worked about with the view, we suppose, of breaking up a cyst. Nothing was removed. There was no alteration, and the wound was closed. On admission, the abdomen was found to be very large, with dulness on percussion from the umbilicus to the pubes. There was no fluctuation anywhere, and the diagnosis arrived at was adipose tissue in excess, particularly in the omentum.

We saw under Dr. Ramskill's care a well-marked case of locomotor ataxy in a youngish man. His symptoms commenced in 1854 with "rheumatic" pains in legs and with "weakness." One day his legs suddenly gave way under him, and he fell. He has been getting gradually worse since; now he cannot walk nor stand when his eyes are shut or when he is looking upwards. He walks with a stick and his eyes fixed on the ground, each foot being thrust out with a jerk, and brought down on the ground with a "flop." His muscular power in both extremities seems very good, and he can resist effectually any attempt to flex or extend his straightened leg. Dr. Ramskill directed sulphur baths every other day, and prescribed two grains of the valerianate of zinc three times a day. There are also under Dr. Ramskill's treatment two cases of incomplete paraplegia—one following a blow on the back of the head and neck, and the other exposure to cold. The latter case is a very striking one, from the fact that the patient has great difficulty in walking straight; his head is constantly turning to the right, and he progresses with his right shoulder forward, as if he was trying to prevent himself walking in a circle. In the right eye of this patient, near the yellow spot, are five distinct black round dots, each the size of a large pin's head; the rest of the fundus is healthy. What relation, if there be any, these pigment masses have to the changes on which the palsy depends it is not possible to say. The patient did not know that there was anything the matter with his eyes. Dr. Ramskill pointed out a case of reflex paraplegia in a middle-aged man. Whenever the patient passes gravel in his urine, he has tingling and numbness of both legs, with some difficulty of walking. The urie acid disappearing is replaced by oxalates, and then the numbness, etc., goes. This has happened several times. Dr. Ramskill has prescribed several remedies, but the following pill seems now to do the patient most good:—℞ Quinæ disulph. gr. j.; ext. coleh. acet. gr. ¼; ext. aloes aq. gr. ¼. Ft. pil. bis die s.

Dr. Ramskill has treated some cases of diabetes very successfully by a mixture containing three-grain doses of permanganate of potash in water, and with increasing doses of extract of cannabis indica in pill, beginning with a quarter of a grain three times a day and going up to three grains.

Dr. Davies has under his care in this ward some more cases of rheumatism treated on the blister plan. These cases are, for the most part, chronic, and though the blisters produce more marked and more speedy relief in young people where there is great effusion, and are undoubtedly best suited for such cases, yet their application has a decidedly good effect in cases of chronic rheumatism and cases of gout in older people, more especially towards the end of the attack, or when the inflammation has somewhat subsided; they seem to clear off the pain and stiffness that so often remain.

A case of rheumatic fever in a pale, emaciated, ill-conditioned-looking man came in a day or two ago. The ankles were red, swollen, and painful. Blisters were applied above the joint, and the next day the patient could move his feet tolerably freely. There is a fact worth noticing in this case, that the day the man came, there was a slight trace of albumen in his urine (before the blisters were applied), and from this bronchitis was predicted. We have known Dr. Clark make this prediction correctly in two cases from the circumstance just mentioned. The day after, the patient had mucous râles all over both sides of his chest. No special treatment was adopted for the complication, and the patient is doing well. In this ward is a little boy, who was admitted some months ago, with effusion into the left chest. He had only been ill three days before admission, but his symptoms were so urgent, and his distress and dyspnœa so great, that Dr. Davies decided to tap the chest. This was done by Mr. James Adams, the House-Surgeon, and a pint of purulent fluid was evacuated. The puncture was betwixt the fourth and fifth riba in the axillary line. The wound healed quickly, but in consequence of the chest again filling, an india-rubber drainage-tube was introduced behind. The boy is now doing well; the side has fallen in somewhat.

There is under Dr. Davies' care in the same ward, also, a well-marked case of fibroid degeneration of the lung. The patient's illness commenced seven years ago, when he was 55 years of age, and he has been gradually getting worse since. He had been a spirit-drinker all his life, though never, he says, to any very great excess. (Moderation in its application to drinking is a word that has a meaning in this part of London which would startle really temperate people.) The patient is of good build; he is broad-shouldered, has good teeth, regular and sound. His side is contracting steadily, and he has a cavity in the upper part of the lung. Some of our readers may ask how it is that such a case is not considered to be one of tubercular phthisis. It is believed that the age of the patient, the slow progress of his case, the peculiarity of his build, repeated attacks of bronchitis from which he has suffered, and the fact that the side is now contracting, constitute features which distinguish the case from those cases of phthisis commonly called tubercular. Dr. Sutton has contributed an able paper on this kind of lung disease to the Medico-Chirurgical Society's *Transactions*, 1866.

We saw among Dr. Clark's patients a muscular and healthy-looking man, 58 years of age, whose only trouble, so far as he knows, is a cough. He is a bricklayer, and has drunk "moderately" (*vide supra*) all his life. On examining his chest, it was surprising to find dulness on percussion in the upper third in front and behind, with tubular breathing and pectoriloquy. He first came under notice some few months ago, and then there were no signs of a cavity, but simply of consolidation. It is somewhat uncommon to find a cavity in the apex of a man's lung without loss of flesh or strength, or indeed anything except cough and dyspnœa to indicate that there is much the matter with him. This case Dr. Clark considers to be one of hæmorrhagic phthisis. It seems that, seven years ago, the patient fell from a height and injured his chest; he was laid up a few days, but then felt all right. Dr. Clark's view is, that when the accident happened, some blood was effused in a part of the lung that coagulated, and that it had lain quiet for some time as a foreign body, but has at length "excited" the changes from which the patient is now suffering.

Then we come to two patients suffering from acute rheumatism with pericarditis: one a boy, the other a man. They were both treated at the onset of the pericardial inflammation by the application of two dozen leeches. In the boy the effect was very striking, the to-and-fro sound disappearing very rapidly. In the man, however, it seemed the leeching had very little effect, but then it must be said that in his case there had been some slight friction-sound for a day or two, whereas in the boy this local inflammation was taken at its commencement.

Among further cases under Dr. Clark we notice one of thoracic aneurism and of chronic ulcer of the stomach. The former patient came in some time ago, and his symptoms were well marked, and his case shows the advantages of the application of ice. He was treated with ice to the pulsating tumour, and he took lead (two grains) and opium (a quarter of a grain) three times a day. In two months the pulsation which was opposite the right second costal cartilage had almost disappeared, and the man was considerably better. The lead was taken for four weeks, and a "blue line" was developed.

The case of ulcer of the stomach is of long duration. The patient, a man of 43, has attacks of pain in the stomach with vomiting about every ten days, and has suffered from the attacks two years and a half. The longest interval has been a fortnight. Dr. Clark is treating the case dietetically. The patient is ordered to take only a very small quantity of liquid food at a time—*e.g.*, a tablespoonful, or even a teaspoonful if the former quantity will not keep on his stomach. Milk and beef-tea thickened with biscuit-powder is his chief food.

In the Hebrew wards, Dr. Clark has a case of a sort of which a great many present themselves at the out-patients' department. The patients are commonly children, of extremely cachectic appearance, and are very much emaciated. The skin is very dry, and is covered with flakes of old epithelium, which fall off every time the patient is touched. There is usually some enlarged gland about the neck or other parts of the body in these cases, and there is often diarrhœa and some cough as well. In the present instance it would

seem that the bodily condition may have had some effect on the mental, for the boy was very stupid and slow during the first part of his illness, but now he is very quick and looks intelligent. Dr. Clark's treatment of these cases is to give at first an alkali and a bitter, as follows:—Pot. bicarb. gr. x., pot. iod. gr. j., inf. gent. ʒss., ter die., to neutralise the acid secretions and products which are so plentiful in these cases; next to improve the condition of the skin by warm baths and shampooing every night for a week, followed then, after the bath, by inunction with cod-liver oil till the skin is soft and acts freely. Finally, when the skin is working readily and the secretions are normal, he gives iron in one of its many forms:—Ferri ammon. cit. gr. v., pot. iod. gr. ij., sp. ammon. ar. mxv., inf. calumbæ ʒj., ter die; or when that fails, the perchloride of iron in small doses, with nux vomicæ, ter die. Dr. Clark's reason for this treatment is as follows:—He believes that when the secretions become acid from fermentation, as they undoubtedly do in all these cases, the mucus of the alimentary canal is rendered tenacious and viscid, adheres to the mucous membrane of the bowels, and is sometimes discharged in the form of casts. This effectually prevents not only secretion, but absorption, and consequently the food is not only not absorbed, but the coating of tenacious mucus has the effect of keeping apart the food and the normal secretion ao necessary to perfect digestion.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, NOVEMBER 23, 1867.

DR. BUCHANAN'S REPORT ON TYPHOID FEVER AT GUILDFORD.

Last week we drew attention to the increasing prevalence, or, at least, the increased lethality, of one of the many forms of preventible disease. It falls in our way now to consider certain facts illustrative of the manner in which another encroaching and equally unnecessary type is brought into operation, causing, as Mr. Simon, in his last Report, truly says, a waste of life "horrible to contemplate," the mode in which that waste is brought about being "nothing less than shameful."

The statistics of the Registrar-General do not enable us to state the mortality resulting from the different forms of continued fevers. These are all classed under the generic name "typhus," and, in combination, caused 23,034 deaths in 1865 throughout England and Wales. In the five years 1850-54, typhus was fatal in the average annual ratio of 995 to every million persons living; in the five years 1855-59, the ratio of fatality fell to 898; in the still more recent period 1860-64, there was a further decline to 847; but in the year 1865, the death-rate from this form of disease rose to 1109 per million. Assuming the correctness of an estimate made by Dr. Farr, it would appear that about one in every nine cases of fever is fatal; consequently that, during the year 1865, the enormous number of *one hundred and ninety thousand cases of fever* occurred in England. Without going further into the general statistics of fever at present, we may refer our readers to the remarks and calculations thereon which are given by Dr. Farr in the Appendices to the Twenty-fifth and subsequent Reports of the Registrar-General.

Passing now to the particular object we had in view in adverting to the subject of fever, we need scarcely remind our readers that in the form of typhoid, or, as Dr. Murchison expressively denominates it, "pythogenic fever," it is the product of decaying excrement; whilst some recent researches of Dr. Buchanan have established the fact that the removal of decomposing organic matters from the atmosphere and the supply of *pure* water were followed almost absolutely, and as a universal rule, by the diminished prevalence of typhoid. Bearing this in mind, what follows will have additional interest.

Towards the end of August reports were generally current of a severe outbreak of typhoid fever at Guildford, and subsequently it became known that the Privy Council had instructed Dr. Buchanan to visit the town to ascertain and report on the causes of the sudden manifestation of a disease which, as we have seen, bears a very indifferent character in reference to its antecedents.

The town of Guildford is situate on the side of a hill of chalk, which is cut through by the valley of the Wey. This convenient formation "furnishes a perfect natural drainage for the town. Cesspools sunk into it keep themselves dry, and are commonly so inoffensive that they are not emptied for many weeks together." There is no recognised system of closet drainage, but shallow sewers receive surface water from most of the streets and slops from the houses, and it appears also that night-soil (chiefly liquid) is surreptitiously discharged into them. Whither the main contents of these sewers are conveyed—into the river or elsewhere—is not stated; the destination of a portion will be noticed presently. Of the 1675 houses in Guildford, 928 are supplied with water from the public water works, the remaining 747 obtaining their water chiefly from private wells, but in some few cases from the river direct. It is important to observe that the occupations of the townspeople offer nothing worthy of note, and that there is little serious overcrowding. To this extent the causes of unusual mortality are simplified.

Typhoid fever, it seems, is by no means uncommon in and about Guildford, and before the particular outbreak several sporadic cases had occurred. But in the last three days of August cases of typhoid were observed in the more elevated and healthiest parts of the town. On September 3 and 4 "a surprisingly large number of people sent for Medical assistance;" in the first ten days of September about 150 cases altogether had come under treatment, and by the end of the month that number had increased to 264. A remarkable feature of the outbreak was its localisation; and that, too, chiefly in the highest levels of the town, without distinction of social position and circumstances. The acme of the disease's progress was reached before the middle of September, and it thence declined rapidly. Inquiring as to the causes which could have induced the disease, Dr. Buchanan soon came to the conclusion that drainage played no direct part in the matter; and the next point to ascertain was the state of the water supply.

The public waterworks have their source in two wells sunk some twenty feet into the chalk at the lowest part of the town; one of these is an old well, from which water is raised by the power of an adjacent water-mill; the other is a new well, "from which, for a short time in the middle of the present year, water was distributed to the higher parts of the town by engine power." The new well was intended for the supply of a new high-service reservoir for distribution over the higher levels of the town, and it appears that in July some water had been pumped from this new well into the reservoir, but that the pumping-engine broke down on August 1, after which date no water was drawn from the new well. So far as we can gather (for the Report is not

exactly clear upon the point), no water was distributed from the reservoir, nor was there any change in the source of supply (from the old well), which continued to be common to both the high and low services of the town until August 17, when the water-wheel was stopped for repairs. On that day, the water which had been stored in the new reservoir (from the new well) was distributed to the high-service houses of the town: "it was distributed on no other day, and to no other houses." Now, it turns out that all the houses first attacked with typhoid fever in the beginning of September had received water from this reservoir; and, without giving detailed statistics, it is sufficient to state that of the 150 cases occurring in the fortnight from August 28 to September 10 there were hardly a dozen persons attacked "who had not had daily and hourly access to the water of the high service." Dr. Buchanan was unable, on careful and detailed inquiry, to find any condition at all coincident with the outbreak of fever, save that of the water supply.

Professor Miller's analyses of the waters of the two wells and of the reservoir show the following results:—

"There is nothing remarkable in the amount or quality of the saline matters; a little ammonia and a small amount of nitrates are present, the ammonia derived probably from surface drainage; it is distinctly more in the new well water than in the old. The amount of nitrates is small in all the cases; so also is the quantity of organic matter, which, however, is decidedly greater in the new than in the old well. After standing in the reservoir for some weeks, it appears, as is usual in such cases, to have undergone a partial oxidation, the quantity of nitrates having increased, whilst that of the ammonia and organic matter has distinctly diminished."

Dr. Miller adds, with reference to the water of the new well:—"I should also think it probable that some contamination with animal matters of excrementitious origin had occurred. Though certainly not to any large extent, the presence of ammonia points, however, unmistakably to this form of contamination."

As between the two wells some very suggestive circumstances are related. The water level of the lower parts of the town, where the two wells are sunk, differs very little from that of the surface of the river. But whereas the level of the old well is unaffected when the water in the river is drawn off, the water in the new well is reduced on such occasions; further, "at the time of construction of the new well, very little water was obtained, till, *on a sudden*, an abundant supply was reached." Or, as we learn in another place, "the new well gets its water not by percolation only, but from a notable fissure in the chalk"—this was the secret of the *sudden* influx of water. As if the chances of contamination are not thus sufficiently great, "a sewer runs within ten feet of the well, *through which sewer the iron delivery pipe of the high service passes*"—surely a novel plan in hydraulic engineering—and it was found that the bricks of the sewer were loosened so as to allow an escape of its contents. Nobody but a believer in impossibilities could doubt the suspicious character of a well so situated; in fact the common-sense view of the Guildford water supply creates a feeling of intense amazement that—considering, firstly, the well-known properties of a chalk formation; secondly, the cesspool system in force throughout the town; and, thirdly, the recent greater dilution of the cesspool contents which has resulted from the conversion of privies into water-closets—no thought seems to have been given to the inevitable pollution of all the water sources situated in the lower parts of the town, to which the contents of the cesspools would naturally gravitate through the porous strata.

But Dr. Buchanan suggests a possible further source of impurity in the water supply. "There exists a communication between the river and the pipes of the waterworks. *This is said to be very rarely used*, and only for the purpose of getting a first sucking power to the pumps; and it is stated not to have been used at all during the present summer." Whether this latter averment be true or not, is immaterial now, but with the story of the East London cholera outbreak fresh in our remembrance, we cannot but protest against the power thus left in the hands of the water engineer to throw at any moment into the service mains the water of a river so contaminated as the Wey at Guildford must, of necessity, be.

It is evident that the whole question of the water supply of Guildford must be considered anew by the light of Dr. Buchanan's report, which has more than a local interest, because it but too clearly indicates the most fertile source of that excessive mortality which is indicated in the statistics with which we prefaced these remarks. In country towns and outlying hamlets, the poisoned water-spring saps the vigour of the population, and swells, to a degree much greater than is generally supposed, the death-rate of the whole country.

LEGISLATION IN RELATION TO CONTAGIOUS (ENTHETIC) DISEASES.

Few persons will be disposed to deny the grave importance of the subject discussed at a late meeting of the Harveian Society, and subsequently in the columns of some non-Professional journals. The publication of Dr. Pollock's letter in the *Times*, followed by that of Mr. Curling, indicates that a more frank and manly spirit is abroad, and that the public is no longer inclined to shun the discussion of a topic which obtrudes itself on our notice in every street.

There is a good deal to be said, from the position of the moralist, in favour of confronting the evil and striving to meet it by some legislative enactment, but *we* have to regard it from a physiological and Professional point of view. We must take humanity as it is, and, so long as it continues what it is, and so long, moreover, as the struggle for life and the habits of society render early marriages the exception, we fear that it is an evil which will continue to exist and to count its victims.

The question, then, before us is this:—What can be done to diminish the prevalence of these diseases, and to arrest the spread of a poison whose effects are not limited to the individual sufferer, but extend to other innocent persons beyond? The task is confessedly one of great difficulty, and it is increasing in magnitude. But we want to see our work followed by success, and we may rest assured that we shall never command this unless we set about it with a determination to grasp the matter firmly, for if we intend merely to approach and touch it we may as well leave it alone.

Two things immediately suggest themselves—one is, that we must cease to regard the disease of syphilis as exclusively contagious during one, and that a very limited, stage of its existence, and come to acknowledge that the syphilitic individual may be a source of infection as long as manifestations of the disease are appearing, and may afford secretions capable of inoculating another and healthy person; and the other, that the provision in the way of Hospital accommodation for such cases must be enormously increased in this country.

Let us take the military garrison towns. As far as these are concerned, we must provide temporary Hospital accommodation, and our War Office and Admiralty possess wooden huts and condemned hulks in abundance, one would imagine, which might be soon turned to this account. Then there must be some uniformity of system. If the House-Surgeon of a Hospital or a civilian be employed, he must become a government officer, and be paid by and made amenable to government inspection. So long as the accommodation is very limited so long must the most directly and certainly contagious varieties and stages of these diseases be exclusively admitted; but we believe that where syphilitic lesions exist in situations likely to bring secretions from them into direct contact with other persons, there is great danger that inoculation may take place, the disease be manifested, and new and fresh sources of contagion be thereby created.

There has not yet been sufficient time for us to decide on the working of the Contagious Diseases Act as regards the Army. Opinions are somewhat conflicting, and the experience obtained at different stations is equally so. The Act has been enforced at five military stations, and the results have been pretty nearly what might have been prophesied. At Portsmouth and Woolwich some little good has resulted, while at Plymouth and Devonport there is a decided diminution in the prevalence of this class of diseases.

The view of the matter contained in the sanitary portion of the late blue book appears to us a very sensible one. The main difficulty is one of a financial nature. A large amount of Hospital accommodation is required to provide for the treatment of all the cases known to the police authorities, for it is evident that if only a small portion of those known to be infected are undergoing treatment little will be gained; the disease will continue to be spread by the remainder. When some progress has been made in checking the evil, the requirements will become less and less, until it will be easy to afford the requisite Hospital accommodation. Now it is at Plymouth and Devonport that this accommodation has been provided on an adequate scale, and it is there also that the labours of the Medical staff and the Medical arrangements appear to have been the best; hence the earliest and best results are forthcoming in this district.

With regard to Woolwich, it seems to us next to hopeless to expect any great results in a garrison town where the population is of so migratory a character, and liable to an influx at any moment from the metropolis, to which no such measures have ever been applied. At Portsmouth the means hitherto adopted have been, in our opinion, very imperfect. A civil Hospital has been subsidised by the Government, new lock wards have been built at Government expense, and these, relatively, so overshadow those devoted to ordinary cases, that the very character of the Hospital has been changed; and, if we are rightly informed, the Board of Governors, having made its own arrangements, sought to impose upon their Hospital staff these extra duties, thereby subjecting their honorary Surgeons to the inspection of a Government officer. Moreover, we have heard that it is a very common occurrence for the same unfortunate patient to be accused again and again of infecting her admirers, and sometimes even shortly after her discharge from the Lock Hospital, she has been officially noted as cured. Now, this is not our idea of the way in which the Act should be worked. We are quite aware of the difficulties which have to be surmounted, and we venture to think that the limited area presented by military camps affords the best opportunities for tracing the source and progress of this class of diseases, and for exercising the necessary surveillance which must be put in force if we would grapple successfully with the evil. It is at Aldershot, the Curragh, and Colchester that the results ought to be, if not better, at least as good as those at Plymouth. It is our duty to look all the facts and difficulties fairly in the face; and we fear that the tentative experience of the Contagious Diseases Act has not been attended with such success that we can afford to remain idly congratulating ourselves on it. We have taken some trouble to obtain accurate data. The Act requires careful working, and on a larger and different scale. There is no difficulty whatever as far as all the details are concerned—the women themselves, the police, and the magistrates; but the remedy is not at all proportionate to the extent of the evil, and we are beginning to learn what this may become. What has been done at Plymouth may be done elsewhere; only we must go about it in the right manner.

Birmingham Charities.—The late Mr. Charles Stockton, jeweller, of Birmingham, has bequeathed £100 to each of the following local charities, besides sums to others not strictly Medical:—The Queen's Hospital, the General Hospital, and the General Dispensary.

THE DISTRESS AT POPLAR.

There is great distress at Poplar—greater even than existed last year—although, fortunately, so far unaccompanied by any epidemic. There are, however, extreme cases of debility arising entirely from want of nourishment—so many, indeed, that, we are informed by Mr. F. J. Hawthorn, the House-Surgeon of Poplar Hospital, nine-tenths of the applicants at the Dispensary are suffering from this one cause—for which, at this excellent institution, whose funds are strained to the utmost, besides iron and quinine, *extract of meat* is given away as a medicine. This fact should be known, as it points at least to one channel through which charity might flow without being unworthily diverted, as, it is to be feared, was the case in some instances last year; when benefactors were indiscriminate and sent their alms to persons who kept themselves pertinaciously before the public by writing to the daily journals, without any authority whatever from those who really knew the extent of misery, and who would have distributed the money placed in their hands with judgment and discrimination. The journals ought not to publish letters from persons offering to receive money for this or any other purpose unless they are backed by those chosen to preside over the funds collected.

The Hospital and poor-house are the barometers of adversity and prosperity in Poplar—the former, which admits only Surgical cases, being full when there is plenty of work in the dockyards, and the latter when there is none, which comparatively is the case now. The Union-house is, in fact, so full that no more can be admitted, and means are being taken to obtain accommodation elsewhere. Last Tuesday was a board day, and the scene in the street outside the Town-hall and Workhouse was a distressing one indeed. The street was lined with applicants for relief. Over six hundred heads of families were on the list that day, the average weekly number of persons relieved being more than five thousand, or fifteen hundred more per week this year than at a corresponding period in 1866. Whilst waiting in the cold for hours, as these poor people had been, not a single murmur could be heard throughout that long array. Each countenance, however, bore the unmistakable stamp of pinching want—a want that had been borne long before it drove the honest and willing worker or his wife to seek relief for themselves and children. Throughout there was calm resignation and forbearance, and Dr. Bain, to whose kindness and intimate knowledge of the necessities of his poor neighbours we are so much indebted for our information, remarks that these high qualities characterise the poverty of those who, really from no fault of their own, have been reduced to the verge of starvation. There are hundreds in real want; but, as their foreman expressed himself, they are "too modest to ask for relief." Let us illustrate this class by taking an ordinary case. A sawyer, with a wife and five children, earning £2 per week, is thrown out of work from the simple fact that there is none to be done. The dockyards are empty, and where two thousand men used to be employed, not twenty now are on the list. For four months this sawyer never earned a single penny, and was at last obliged to seek relief, and the greatest amount he received was 2s. and six loaves per week during his wife's confinement. Last week he was allowed one loaf, but no meat or money. This might be because he has a son, an apprentice, who earns 8s. a week. Others there are who have parted with everything, and are lying upon the bare boards. There are scores of families in this position. The pawnshops are full, and refuse to take in any more pledges; and thus, since there is no work to do, the starving workmen, who have hitherto earned by their skilled labour sufficient to pay their way regularly, must needs go to the parish to keep body and soul together.

If we go into the docks and dockyards, there we find the cause of all this great misery: there are no ships building; the

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bare poles of the slips alone remain to tell the tale of former prosperity and activity. During the Crimean war, in Messrs. Wigram's yard, twelve frigates and two Indiamen were built in as many months. Nine months ago was launched from a slip made on purpose at a cost of £4000, the Government transport ship *Crocodile*, 4000 tons; since then the costly slip has been unused, and no orders are expected. Where thirty smiths' fires used to burn day and night, now only three are occasionally used. But we need not multiply instances. The cause of the distress is, without doubt, the fact of the altered circumstances of the great building yards. Iron vessels are now built in the North, where coal and iron are easily procured. We have, fortunately, no urgent necessity for fresh frigates, and there is a general depression in all mercantile affairs. It is a sad spectacle to see a large population of skilled artisans in a state of starvation from causes over which they have no control; we regret, however, to think how little provident of the future many are, and it is too probable that some of the present sufferers, fresh from their bitter experience as they are, would, were a press of work suddenly to be required of their employers, embarrass them by striking for higher wages than their profits, and, we may add, losses, would justify them in giving. This has too frequently occurred not to be expected again, and it is a disagreeable fact which robs the unemployed of much of the sympathy they otherwise would deserve and receive in the most substantial form. The many, however, ought not to suffer for the few.

Fortunately Poplar is declared at this present moment by the Medical men to be remarkably free from disease, general debility from insufficient food being really the only epidemic that they have to treat. But they will certainly have a different tale to tell if the distress continue. Famine and pestilence are never far apart.

THE WEEK.

TOPICS OF THE DAY.

The Speech from the Throne, which opened the present session of Parliament, although its main interest turned on the exciting subjects of Abyssinia, Italy, and Fenianism, promised, in addition, much in the way of social legislation. The Irish and Scottish Reform Bills are soon to come before Parliament, and our friends in the North should undoubtedly be on the alert to insure the representation of their Universities. The spirit of insubordination abroad will, we should hope, induce the present Parliament to admit with thankfulness to the franchise educational constituencies which may hereafter help to balance the power of the great unwashed. We are also promised that measures for the more general education of the people, the amendment of the condition of the mercantile marine, the removal of restrictions on the importation of foreign cattle, and of law reform shall be brought before the attention of the Legislature. These and other subjects relating to the social condition of the community will probably be postponed until after Christmas. The present sitting will be devoted to the more pressing claims of war and treason.

The Farnham Workhouse inquiry drags its slow length along. The examination of Mr. Powell, the Medical officer of the Workhouse, undoubtedly has confirmed in the main the statements made by Drs. Anstie and Stallard. It appears to us that, inasmuch as Mr. Powell was certainly aware of the treatment to which the sick poor were subjected in the Workhouse, it was his duty to have called public attention to the matter. He should have appealed from the Master to the Guardians, from the Guardians to the Poor-law Board, and, if necessary, from the Poor-law authorities to the public. It seems from his own evidence that he contented himself with holding "conversations" with the Guardians on the unfitness of the "hutches" for the reception of human beings, but that he would have considered it "presumptuous" to have made any written report or recommendation on the subject. Another point in this gentleman's evidence which seems to us remarkable is that he confessed to having taken a commission on the water-beds supplied for the sick poor. Dr. Edward Smith, indeed, said he thought this was a common practice, but the Chief Commissioner interposed, stating that it was contrary to the consolidated orders of the Poor-law Board, and that it was undoubtedly illegal. Putting aside its illegality, we should be sorry to suppose that there are many Medical officers in the kingdom who would condescend to what we think so degrading a transaction. Is it possible that this Mr. William Edward Powell is the same individual who was formerly Poor-law Medical Officer of the Tendring Union, near Manningtree?

The Earl of Devon, in a speech recently delivered at Bristol, offered the true explanation of the evil which has become mixed up with the workhouse system throughout the country. Workhouses were not originally built for the reception of the sick and infirm, but for able-bodied paupers, men and women who, if they had the will and the opportunity, could earn their own livelihood. It would have been most unfair to have provided luxuries for this class which the poor ratepayer could not obtain; moreover, it would have been a very unwise policy to have made the workhouse attractive. Partly from the greater plenty which has followed free trade, partly from emigration, but partly also from a wholesome dread of the workhouse, the class for which these buildings were erected has greatly diminished, and they have become in a great measure asylums for the sick, the aged, and infirm. No Poor-law Board, with much larger powers than the present, could immediately effect the change necessitated by the circumstances of the case—much less a Board which up to last year had only the power to compel an expenditure on buildings not exceeding £50, and whose authority even now is limited to ordering an expenditure of one-tenth only "of the average annual amount of the rates raised for the relief of the poor for the three years ending at the Easter next preceding the raising of the money." If it be right, as we believe it to be, that every workhouse in the kingdom should be supplemented by an infirmary for the sick replete with all the substantial comforts of a Hospital, let the whole nation be taxed for the purpose. But a workhouse and a Hospital are two different things. They were the product of different sets of ideas. The one is a creation of the new Poor-law—the other had its rise in principles

"Which built full many a bede-house, but never a Bastile."

A Medical Officer of the Guards has recently proposed, through the medium of the *Times*, that the stoppage of pay for Hospital accommodation and expenses should be different in the case of the soldier who is attacked with disease contracted in the course of duty, and in the case of the man who enters Hospital with self-induced disease. We think this a very sensible and useful suggestion. At present the steady married soldier with a family who has contracted rheumatism or pneumonia on guard is mulcted to the same amount with the scamp whose vices are constantly placing him on the sick-list. Some regulation which would remedy this anomaly would be a useful supplement to the Contagious Diseases Act.

The disastrous effects of the hurricane which has swept over St. Thomas and the Virgin Islands may perhaps be not entirely unbalanced by good. The prevalence of yellow fever at St. Thomas's, depending, as it doubtless does, in great measure, on the horribly filthy state of its tideless harbour, may perhaps find its only remedy in such a convulsion. The stagnant waters, thick with the sewerage of a town of eight or ten thousand negroes, where the *Atrato* lately contracted the disease, will at least have been cleared and changed by the tempest. A serious charge is brought against the Royal Mail Company in reference to the last voyage of that ship. It is said that 150 passengers who arrived at St. Thomas by the *Tyne* from Colon in perfect

health were transferred to the *Atrato* when her chief officer was dying from yellow fever, and fourteen of her crew had been taken to Hospital with the same disease. The sanitary arrangements on board these vessels are also said to be very bad.

Sir Roderick Murchison still indulges in hope regarding Livingstone. He has received a letter from Dr. Kirk at Zanzibar dated September 28, which states that he had seen a native trader who had just returned from the western side of Lake Tanganyika, and who gave him a detailed account of having seen a white man travelling in that remote region. Sir Roderick will read the letter at the next meeting of the Geographical Society on Monday next.

Mr. R. B. Gibbs, a member of the "Anti-Compulsory Vaccination League," has been addressing a meeting in Richmond, in Yorkshire, in favour of agitation to procure the repeal of the Vaccination Act. The special provisions of that Act are one thing; the principle involved in legislation in favour of vaccination is quite another. We always doubted the wisdom of the former; we cannot doubt the soundness of the latter. No reasonable person who has arrived at the age of fifty, and who remembers the seamed faces and sightless eyes which surrounded him in his childhood can doubt the practical value of vaccination. It is not a perfect protection as at present practised. Probably it is not capable of being made so. But it has reduced the small-pox from being the most common, the most fatal, and the most dreaded of the exanthemata, to a comparatively rare and mild affection.

The Medical Profession in Manchester are about to hold a meeting for the purpose of expressing an opinion on the candidature of Mr. Mitchell Henry for the representation of that city. In the circular we have received it is expressly stated that "the sole object of the meeting will be to express their belief that Mr. Henry is thoroughly well qualified to represent the views of modern science on questions of social and sanitary reform and of state Medicine; that the presence of such an exponent is urgently needed in Parliament; and that, as far as political conviction will allow, they will endeavour to assist his candidature." We think this the true ground on which a Medical candidate should receive the support of the Profession, and we shall be rejoiced to see Mr. Henry in Parliament as the exponent of the social and political bearing of scientific Medicine.

ABYSSINIAN CAMPAIGN.

We have perused with much pleasure, in a blue book just published on the Abyssinian expedition, the instructions which have been compiled by the Army Medical Department for the guidance of the sanitary officers about to accompany the force. We have neither time nor space this week to do more than express our opinion of them as being thoroughly sound and practical in their nature, and as containing the essence of all the best available information on the subject. As an official document, it is short, well arranged, and lucidly written, and highly creditable to the department from which it emanates.

VARIOLOUS FEVER.

"During the prevalence of any eruptive fever on board ship it is advisable to deal with all cases of febrile disease as modifications of the prevailing fever, obscure, it may be, and trivial in themselves, but possibly capable of being communicated to others, and of assuming more decided and virulent symptoms." This aphorism, which we quote from the just published "Statistical Returns of the Health of the Navy, 1864," contains a truth familiar to most civil Practitioners. During the presence of scarlet fever or small-pox in a house, certain inmates may be seized with shivering, followed by intense feverishness and all the premonitory signs of the disease; but it stops short—no eruption comes out, and the patient, who has evidently suffered an abortive attack, is soon well. At least forty men on board the *Euryalus* are reported by Surgeon David Lloyd Morgan as having suffered from variolous fever—rigors, vomiting, lumbar pains, though the eruption of small-pox did not follow. Singularly enough, though, several anomalous eruptions did make their appearance; some like urticaria, others like measles, but for the most part like scarlatina—nay, it is suspected that certain cases of scarlatina reported on board the *Rattler* were really variolous fever, with a rash resembling scarlatina.

THE MERCHANT SERVICE ON THE WEST COAST OF AFRICA.

The statistical report of the health of the Navy for 1864 confirms all that we said a few weeks since of the mortality o merchant seamen on the West Coast of Africa and its causes. Our information was derived from the mate of a merchantman; it is confirmed in the following extract from a report by Surgeon Henry Eales, of H.M.S. *Handy*. "Although the crew of the *Handy*," he says, "have been comparatively healthy, the crews of the merchant vessels in the lagoon have at times suffered severely. One brig, with eight men, lost six of the number in five weeks, whilst several others lost many of their crew in being towed over the bar. . . . The large amount of sickness in the merchant ships is easily accounted for by exposure to the sun, improper food, and excess of drink added to habitual filthiness, all of which it is impossible to prevent, notwithstanding the stringent regulations which the health officer has imposed."

THE INCREASE OF PAUPERISM.

At the present moment, when the public is waging war with butchers and bakers, it is interesting to inquire what is the condition of pauperism. Is the number of the helpless poor greater or less than in former years? For, should there be an increase, its effect upon the ratepayers will present a large arithmetical proportion than if food were cheaper. We are sorry to find that the present year's statistical returns show an increase of pauperism, which even at the commencement of the winter, when labour is beginning to be in smaller demand, is sufficiently alarming. In the last week of September, 1866, the number of paupers in England and Wales was 842,860; in the same week of the present year it was 872,620, showing an increment of 29,760, or three and a half per cent. Of course, in the present early stage of the season, it would be premature to predict as to the prospects of pauperism, but we fear that there are indications of increase of the present large proportion rather than of diminution. The promised inclement winter, the destitution at the East-end, the character of the harvests both here and abroad, and the recent bread riots, all tend to support the conclusion that the coming six months will tell severely on the poor, and will seriously affect the pockets of the ratepayers. Although last year the paupers cost the State only the miserable sum of seven pounds per head, yet the total sum expended in relief was nearly £6,500,000. It is, therefore, of importance both financially and philanthropically to consider the extent to which poverty exists among us.

WINE *versus* SPIRITS.

It is satisfactory to know that dram-drinking, if not altogether obsolete, is at least on the wane. The various efforts to introduce wines of all kinds into the country have been attended with a degree of success which is most encouraging. The amount of wine consumed in this country has been nearly doubled within the last ten years. Thus in 1864, 1865, and 1866, the amount cleared for home use was 12,240,000 gallons, while in 1852, 1853, and 1854 it was only 6,645,000 gallons. On the other hand, it would seem that the quantity of beer imbibed is larger than before; the quantity of spirit drunk is very much less, the returns of the latter for the years 1864, 1865, and 1866, being more than *two million* gallons less than those for the years 1852, 1853, and 1854.

THE ETHERS IN WINE.

Dr. A. Dupré, of the Westminster Hospital, has published in the *Journal of the Chemical Society* a very interesting communication on the estimation of compound ethers in wine. The process consists in the estimation of the quantity of alcohol which is contained in the wine in the form of ether, and the quantity of acid which is set free at the same time by the decomposition of the ether. He begins by describing Berthelot's process, in which, first, the total amount of free acid in the wine is estimated, and secondly, after heating some of the same wine with baryta water, the additional amount of acid thus set free is determined. For, during the heating, the compound ethers in the wine are decomposed into alcohol and acid, which latter neutralises part of the baryta. A wine containing any compound ethers will therefore neutralise more alkali by being heated with it than it will in the cold, and this excess of alkali neutralised is an exact measure of the amount of acid present as compound ether, and indirectly a measure of its equivalent of alcohol. But wine is too complex a liquid for any one such process; Dr. Dupré, therefore, divides the wine ethers into two classes—first, those like acetic ether, which are readily volatilised without decomposition, and secondly, those like tartaric ether, which are not. To estimate the quantity of the first class, he distils the wine, and heats the distillate with alkali; he thus estimates the quantity of acid present in the volatile ethers, and of course the quantity of ether. He then decomposes the fixed ether in the residue by heating it with alkali, and then distils it a second time, so as to separate and measure the quantity of alcohol set free. Thus, the volatile ether is measured by its acid, the fixed by its alcohol. To estimate the small quantity of alcohol contained in the fixed ether, he uses Mr. Chapman's process of converting it into acetic acid by chromic acid. (He promises us, by the way, some *quantitative* estimates of the alcohol eliminated by the kidneys; we shall look with great interest for an account of his researches on this point, and hope he will settle for ever the physiological riddle propounded by MM. Lallemand, Perrin, and Duroy.) He gives us the results of the examination of four samples of Rhine wine, and one each of claret, cape, and port, which we will give next week in a tabular form.

THE SPHYGMOGRAPH.

Now that the sphygmograph begins to be generally employed as an instrument of precision in diagnosis, it would be well if those most experienced in its use would lay down some rules as to the conditions under which it should be placed in obtaining registrations of the pulse. What we want is a uniform system of applying the instrument to the artery. At present the circumstances under which the sphygmograph is used vary with the observer, and hence it is nearly impossible to regard the accumulated results of its employment as of much value in the formation of scientific conclusions. Before, however, even a constant method of sphygmography is laid down, we think it would be advisable that a committee of workers should be formed, with a view of establishing satisfactorily the principles on which the vibrations are transmitted from the artery to the glass or paper on which the register is made. The present state of things is unsatisfactory for the earnest student who desires to see improvement in the art of diagnosis, and is obstructive to the application of the instrument to the wants of practical Medicine. For though we have no doubt that some of our more experienced sphygmographers obtain results of a uniform and reliable character, we are assured that in most instances the registrations obtained are absolutely valueless as items of reliable testimony. In illustration of this, we may cite the now debated, and we may say debateable, question as to the influence of a weight as compared to a spring in assisting the transmission of the vibrations to the lever. This, to our mind, seems an element in the science of sphygmography upon which it is essential to possess more exact ideas. Again comes the important problem as to the point at which the accessory weights—employed in some cases—should be attached. Dr. Foster, of Birmingham, takes credit for being the first to suggest that the weight should not be placed upon the lever of the instrument, but should transmit its influence more directly to the artery. This is a matter of considerable moment, and the credit of first drawing attention to it belongs really to Messrs. Baker, of Holborn, whose sphygmograph is being now much used. Without wishing to throw further difficulties in the way, we should be glad to see some precise determination as to the parts of the sphygmographic wave which correspond to the various conditions of the heart between two pulsations. There has been a good deal of dogmatism on this point, but we think that a more extended application of physics would solve the difficulty in a more rational manner. It can hardly be denied that, until the sphygmographic tracings are accurately referred to the various circulatory phenomena to which they are related, the sphygmograph can have but a very uncertain value as a means of diagnosis. We would suggest, therefore, that, in the interests of science, a committee, composed of all who are interested in this subject, should be formed to discuss the questions to which we have referred, and, if possible, to lay down some standard conclusions and rules, by the adoption of which on the part of the Profession our future records shall be given something at least of scientific uniformity.

THE ANATOMY "OF THE FUTURE."

In a recent review of Professor Tyndall's admirable treatise on "Sound" which appeared in the *Pall-Mall Gazette*, the writer, who desired to be critical and to air a knowledge which had no reference whatever to the subject under notice, stated that the author had repeated a stereotyped error in alleging that certain nerves proceeded from the brain, for that in fact no nerves whatever had their origin in the brain. This condescending and unwarranted piece of correction met with a very sharp rebuke from Professor Huxley, who, in a letter to the *Pall-Mall Gazette*, stated—what all anatomical terminology justifies—that not only do the olfactory and optic nerves unquestionably arise from the brain, but that, in general anatomical parlance, the whole of the cranial nerves may be said to take their origin in the brain. To this the reviewer—who preserves his anonymous shield—replied, with more of patronage than pertinence, that unfortunately the term "brain" was very vaguely applied, and that Professor Huxley's "mistake" arose from his misapprehension. According to this gentleman there is a new school of anatomy in which the brain is defined to be simply the two cerebral hemispheres. Hence, of course, Professor Huxley's error! To this Professor Huxley replied that neither in a popular nor scientific sense has the word "brain" ever been used as the synonym of the cerebral hemispheres, and, having shown a number of contradictions involved in the not over-clear statements of his opponent, he epigrammatically compared the "new anatomy" referred to with Wagner's music, and styled it the "anatomy of the future." The *Pall-mall* reviewer finally makes a number of quotations from Bostock's "Physiology" and other works in defence of his original assertions. Our readers interested in the discussion must refer to these for further details; for ourselves, we are bound to confess that they each and all convict him of the charge urged by Professor Huxley, for in all the term "brain" is employed generally to designate the whole cranial mass or encephalon. But, laying aside the argument from authorities, what do we find? Why, that the writer has admitted his offence. He objected to Dr. Tyndall's statement that the nerves arose from the brain, and the only justification of this cavilling criticism is the assertion that in his own opinion the term should be properly applied only to the

cerebral hemispheres. It is a pity that a journal so ably conducted as the *Pall-mall Gazette* should allow an anonymous writer to ride roughshod in this manner over one of the ablest anatomists and most truthful explorers which the field of Natural Science possesses; yet this it has done in thus closing the discussion. But there is little doubt that though, as Professor Huxley stated, his opponent wrote "as one having authority, and not as the Scribes," he nevertheless is more familiar with the pen than the scalpel.

PROFESSOR A. VON GRAEFE.

We are informed that the Minister of Public Instruction in France has made the most brilliant offers to Professor A. von Graefe, of Berlin, in order to induce him to accept the chair of ophthalmology at the University of Paris, but that they have been respectfully declined by the German oculist.

HOSPITAL CITADELS IN INDIA.

We hear from India that the military and Medical authorities have lately had under their consideration the suggestion that at certain stations the military Hospitals should be so situated and constructed as to be capable of being used as citadels or places of refuge for the families of the troops, and of the civil residents, in case of any sudden outbreak, so as to permit the troops to take the field without incumbrance. We understand that, during the mutinies of 1857, Hospitals were frequently so used; each soldier, on going into Hospital as a patient, taking with him his arms and accoutrements—contrary to the usual rules of the service—so as to be available for defence in case of any outbreak in the station. At the preconcerted signal, all women, children, and non-combatants repaired to the nearest Hospital, the usual guard of which was at the same time considerably reinforced, and such soldier-patients as were fit to leave their beds turned out with belts and accoutrements over their Hospital dress, and presented a rather quaint appearance. We have heard from Medical officers who served in India during that eventful period, that at most stations alarms were of almost daily and nightly occurrence; and that it was frequently a subject of admiration to see men, who a few hours before had been prostrated by fever and ague, promptly turn out armed and equipped, pale and weak as they were, but silent and dangerous. On the alarm subsiding, the families returned to their usual quarters, so that in most instances the Hospitals were only so used for a few hours at a time. But those were exceptional times, and the expediency of permanently adapting Hospitals to meet a contingency which may never again arise admits of considerable doubt. On sanitary grounds, the objections to such a proposal appear to us insuperable. The open space and free ventilation essential to Hospitals in a tropical climate would be encroached upon and interfered with by the walls necessary for defence. Military stores and provisions sufficient for a considerable period would have to be kept constantly on hand, in order to render the system of Hospital citadels really efficient. The whole construction of the buildings would have to be modified, so as to render them subsidiary to the purposes of defence, and, at the same time, to admit of their affording suitable, or even tolerable, accommodation to the families of all classes who might seek protection within them; otherwise, the overcrowding, defective ventilation, and unrestricted intercourse between those already sick in the wards and those newly arrived in a state of alarm and mental depression, rendering them an easy prey to the inroads of disease, would most probably be followed by the most disastrous results. If the present conditions of our tenure of India render such precautionary arrangements necessary, we should certainly advise, on Medical grounds, that Hospitals should not be used for the purpose. If citadels be necessary, or likely to become so, let them be built expressly, in suitable situations, and used meanwhile as depôts for military stores; let them contain a proper amount of quarters available for the families of the residents in case of emergency, and separate buildings to which the sick should at the same time be transferred. It appears to us that for the temporary purposes of a merely possible contingency it would be a very serious mistake to permanently subject our sick soldiers in India to the unfavourable influences of Hospitals constructed as places of defence.

TAPEWORM IN INDIA.

The increasing prevalence of tapeworm among European troops in India has begun to attract attention. In the Bombay Presidency the disease appears to occur most frequently, but the Punjaub is beginning to attain an equally disagreeable notoriety, as the disease has been observed to be more frequent in regiments which have served there for some time. We are happy to learn that this matter is attracting the attention of the Governments of both Presidencies. Strict regulations have been introduced for the invariable rejection and destruction of all meat found to contain the "Cysticercus cellulosa." Increased attention is to be given to the construction and conservancy of the slaughter-yards. One most important measure is to prevent dogs from frequenting the slaughter-yards and their neighbourhood. These animals feed on the offal of diseased cattle, and deposit the ova of the parasite, to be in turn consumed by other cattle in the herbage or water. It has been ordered by the Government of India that the sheds for living cattle shall be kept apart from slaughter-houses. It has also been recommended that all possible means be adopted to prevent the feeding of cattle on foul forage, that manure yards are to be surrounded by fences, and all litter burned when it cannot be disposed of *bonâ fide* for the manuring of land. The poor quality of the meat supplied to the troops in Bombay by the contractors has been severely commented on by Sir Robert Napier, and on his recommendation the Commissariat have been instructed to arrange for supplying meat departmentally in all stations in that Presidency, and the cattle are to be carefully fed for at least a month in the Commissariat yards before slaughtering. To meet the emergency which arises on the condemnation of fresh meat rations, it has been recommended that a stock of salt meat should be kept on hand, and the Bombay Government have ordered that the proposal shall be carried out at two stations, by way of experiment, in the first instance. It is very satisfactory to see that such judicious arrangements are being made for procuring wholesome meat for our troops in India; but the necessity for such enactments shows that the antecedent state of affairs was far from agreeable. There can be little doubt that, with increased attention in the mode of feeding and slaughtering the cattle, a better and more nutritious quality of meat will be obtained; and we may fairly hope that tapeworm, and the dyspepsia, anæmia, and general cachexia so observable in soldiers who have served long in India, will become less frequent as causes of invaliding and discharge from the army.

FROM ABROAD.—THE NERVI NERVORUM—THE STUDY OF SURGERY—INOCULATION OF TUBERCLE.

M. Sappey has recently announced to the Académie des Sciences that he has discovered the existence of nerves in the neurilemma, the disposition of these *nervi nervorum* in the fibrous sheath of the nerves differing little from that observed in the nervous ramifications of other dependencies of the fibrous system. It is not only on the common or principal sheath that they are met with, but also on the sheaths which surround the principal and tertiary and secondary bundles, becoming more delicate and more rare as the calibre of the sheaths diminishes. They are not found on the envelope of the primary bundles, the *périneure* of Robin. For this reason they are not discoverable on any of the nervous divisions having a less diameter

than half a millimetre. The tubes constituting these nerves are remarkable by their excessive tenuity, each having, however, its envelope, medullary layer, and cylinder axis.

Alluding especially to the *nervi nervorum* of the optic nerve, M. Sappey observes that, of the two envelopes with which this nerve is surrounded, the outer one, which extends from the optic foramen to the globe of the eye, receives a large supply of these *nervi* derived from the ciliary nerves; while the inner and far more delicate envelope, which comports itself with respect to the optic nerve as does the neurilemma of other nerves, yet receives no nervous ramusculi. The external sheath is exceedingly rich in these *nervi nervorum*, which form numerous plexuses by their divisions and anastomoses, intermingling with those of the blood-vessels. This sheath is also remarkable for the abundance of elastic fibres which enter into its composition. The supposition that this sheath is a prolongation connecting the dura mater with the sclerotica is evidently erroneous; for it differs from these notably in the possession of those elastic fibres which are wanting in both of them, and in the abundance of its *nervi nervorum*, which are extremely rare in the dura mater and not to be found at all in the sclerotica.

We reproduce a few passages on the study of Surgery from an introductory lecture by Professor Billroth, reported in a recent number of the *Revue des Cours Scientifiques*; but first let us notice the compliment he pays to the Surgery of our own country, which, coming from so high an authority, is well worth recording. After a sketch of the history of Surgery, in which he acknowledges how backward this department of the Medical art long continued in Germany, he observes that

"German Surgery has in our own times gained a height which places it on an absolute level with the Surgery of other nations. We are no longer under the necessity of going to Paris in order to acquire Surgical knowledge. Let it be well understood, however, that this does not mean that it is not highly desirable for every Physician to avail himself of the experience and the ideas which he may obtain in other countries. Scientifically speaking, both with respect to Surgery and to Medicine, we may say that England takes precedence at the present day of all other countries. Since the time of Hunter, English Surgery has maintained a grandness of character which remains to it in our own times. What has communicated so strong an impulse to the Surgery of the nineteenth century has been the attempt made to unite in it the sum of Medical acquirements. The Surgeon who can raise himself to this height, and possesses, besides, the artistic acquirements of Surgery, may be said to have attained the supreme and ideal aim which crowns the summit of the Medical edifice."

Descending from this elevation to humbler matters, the Professor gives his pupils some good advice on the study of Surgery:—

"If you are limited to the four years generally devoted to Medical studies, I advise you not to commence with Surgery until your fifth *semestre*. The general tendency among you is to emancipate yourselves as speedily as possible from the preparatory courses, in order to commence practical studies in good time. It is true that at the present day this is not so common, as most of the Faculties have instituted courses in anatomy, microscopy, chemistry, physiology, etc., which allow of your occupying yourselves in a practical manner even during your studies; still, the eagerness to enter upon clinical studies as soon as possible is very considerable. It seems of much more interest to enter upon the experimental way from the beginning than to tease oneself with studying objects, the relation of which to practice is not very clear. But you forget that a certain degree of exercise is necessary, and that the school of experience must be passed through in order to derive real profit from things which are seen. . . . How often is it that the most commonplace observations, those that we are able to make daily, remain for a long period unproductive, as far as the real utility we are enabled to derive from them! The method which should consist in empirically traversing for oneself every phase of the development of Medicine, would prove too long and too laborious, and only a man at once most highly gifted and a most intrepid inquirer could ever reach the goal by this route, and then only after having repeatedly gone astray. Do not display too proudly these banners—'experience,' 'observation.' It is a talent, an art, a science, to be able to bring to observation the necessary discernment, and to draw just inferences from the acquired facts. There is the perilous side of empiricism. The public, ignorant of Medicine, only knows of experience and observation in the vulgar sense, and for it the so-called experience of an old shepherd is worth just as much, and sometimes more, than that of the Physician. Alas! the public is sometimes right, for how many of these old shepherds we have even among our *confrères!* Whenever a Physician, or any other person, boasts to you of the results of his experience and observation, the first thing you have to do is to examine the stamp of mind of the narrator. This diatribe against pure empiricism does not imply that you must necessarily commence by learning theoretically the whole range of Medicine before beginning practical studies, but a general appreciation of what you have to hear is indispensable. So you must learn to know your tools before seeing them employed by others, or taking them in hand yourselves. In other words, general pathology and therapeutics, and the materia medica, ought to be summarily known by you before approaching the patient's bedside. General Surgery is but a detached portion of general pathology, and hence you should pursue its study before entering the Surgical clinic.

"In my student days, I have often heard it asked, 'Why should we attend lectures on special Surgery and pathology—subjects which we can study so much more conveniently at home?' That might be possible, but, at all events, it is little thought of except as the examinations draw near. Besides, as old Langenbeck of Göttingen used to say, the *vox viva*, the winged words of the professor, have, or ought to have, far more attraction than mere reading, while the lectures are illustrated by all kinds of graphic demonstrations. I attach the highest importance to all Medical teaching being demonstrative, knowing well from my own experience that this description of teaching is always both more attractive and more profitable. . . . . As soon as you have completed the course of general Surgery, you should enter the clinic as simple auditors, to afterwards, in your seventh or eighth *semestre*, assume a more active attitude. You will then render publicly an account of what you know in given cases, accustom yourself to bring your knowledge rapidly to bear, to distinguish facts of real importance from those that are not so, and to learn in general what constitutes the true Practitioner. You will thus discover the deficiencies in your acquisitions, and will labour with zeal and diligence at home to supply them."

During the discussion which is taking place at the Académie de Médecine on M. Villemin's paper on the "Inoculation of Tubercle," M. Piorry has just read a paper which he terminates with the following conclusions:—1. The facts relating to the reproduction of tubercle consecutively to the introduction into the connective tissue, and other parts of the economy, of granular and tubercular matter are, no doubt, of great interest; but they present the most complete analogy with those which have already been collected concerning the spontaneous or induced inoculation of pus in the different tissues and organs, or into the blood of man or animals. 2. The cause of such analogy arises from the fact that tubercular matter would seem to be nothing else than pus which has undergone, as a consequence of its sojourn in the organs, numerous and varied modifications. 3. Not only pus, but also the serum of blood, and the blood, which undergo no organisation, deposited in the cavities, in the connective tissue, in the pulmonary cells, and the bronchi, may become foreign bodies, and give rise to grey granulations, and provoke the secretion of purulent products likewise susceptible of assuming the tubercular form. 4. If the facts observed by M. Villemin are to be regarded as inoculations because the tubercular matter or the granulations are reproduced in the lungs, the membranes, and the vascular and bronchial surfaces, we must also regard as inoculations the analogous phenomena which are found to result from the introduction of pus into the vascular orifices. 5. In these experiments it is not the inoculation and reproduction of a miasma or a virus which takes place, but the penetration of pus into the vessels and its deposit, molecule by molecule, in the tissues. Such pus there undergoes alterations, becomes

desiccated and modified, and induces by its presence the secretion and deposits of new pus, the appearance and consistency of which vary according to the more or less acute manner in which such phenomena are accomplished. Among the appearances which such pus may assume, should be especially noted the tubercular and granular forms ensuing on the chronic condition. 6. The importance of the distinction between the inoculation of a virus and the penetration of pus is great; for, while the contagion of a virus or a miasma is possible and observable, this cannot be stated with regard to the penetration of purulent or tubercular molecules into the tissues or blood-vessels. 7. To maintain the identity of these two orders of facts is entirely to pervert the terms "inoculation" and "contagion" from their ordinary acceptation. 8. Nothing is more certain and more logical than the possibility of annihilating a virus by the introduction into the circulation of a special virulent agent; but nothing can be more absurd, dangerous, and blamable than the introduction of pus or tubercular matter into the system of a man not the subject of pyæmia or tubercle, with the intention of preventing his future liability to such altered condition of the blood and its usual organic consequences.

CARBOLIC ACID IN THE LONDON HOSPITALS.

Few modes of treatment recently introduced have met with such general acceptance and been so extensively tried as that by carbolic acid. This may be accounted for in two ways—in the first place, by the high reputation of those Surgeons who brought it before the British Medical world; and in the second, by profound distrust of the treatment previously in vogue, seeing that it led to issues of the most disastrous character. We do not here propose to enter into any discussion as to whom the honour of having first introduced carbolic acid into the *armamentaria medica* of right belongs; it is sufficient for our purpose to acknowledge that to the example and teaching of Professor Lister we owe its general employment. Authors are, however, notoriously partial to their own bantlings, and inventors not less so. To judge of the absolute merits of any mode of treatment, therefore, it is necessary to go further afield than the scene of its birth, and to look for the opinions of more men than its originator only. In Medicine this is especially necessary, seeing that a man may acquire special dexterity and skill in the application of one remedy, which will, therefore, in his hands yield better results than in those of another. As, however, the total amount of success must, for the most part, depend on the results obtained by the bulk of the Profession, it is not fair to take those obtained by the most skilled of its advocates as a fair representative of the universal success. Again, when discussing Surgical injuries, the constitution of the patient is a point which ought never to be overlooked; and as nothing is more certain than that the constitution of one man, or one set of men, or even of a small town as compared with a large one, differs from that of another, the wider the range of observation the more certain is the induction. A considerable period has elapsed since the introduction of carbolic acid as a curative agent, and we now accordingly propose giving some account of the estimates formed of its value by London Surgeons.

To begin with University College Hospital; we find that on the whole experience has not been in its favour. Under the care of Mr. Berkeley Hill, Mr. Shoppee tells us, there came a patient whose leg had been smashed by a cart. Amputation of the thigh far up was performed, and the parts dressed with carbolic acid in linseed oil, the proportion being one to five. The whole was covered by blocked tin, and allowed to remain for four days; the patient feeling most uncomfortable, it was then removed, when it was seen that a considerable quantity of pus had been formed. Afterwards, wherever the carbolic acid had been applied the parts sloughed; two pieces of bone necrosed, and the patient is still in Hospital.

Mr. Christopher Heath had another case, this time of compound fracture of the tibia and fibula in their lower third, which was placed on a splint and dressed as before. Six days after there was slight erysipelas of the adjoining parts; the dressing was displaced and carbolic acid putty applied. In three days an abscess had formed, which was opened, and carbolic acid in solution injected, but two or three ounces of pus daily came away from the opening. Finally, the use of carbolic acid was discontinued and poultices applied, but the bones necrosed, and the patient is still in Hospital.

Again, Mr. Joseph tells us of a case, under Mr. Berkeley Hill, where the patient's foot was smashed and Chopart's amputation performed. Carbolic acid in linseed oil, in the same proportions as before, was applied, but the patient died in seven days. He suffered from delirium tremens, and a bad form of erysipelas attacked the leg. Sloughs formed on the outside of the foot, and carbolic acid was applied to these; the sloughing was arrested, and no erysipelatous redness came within half an inch of the crust on the wound. Pus was formed throughout the leg, and the patient died of pyæmia. There came under the care of Mr. Marshall a compound fracture of the thigh in its middle third, and carbolic acid in oil was applied in the usual fashion, but in three days there was redness, swelling, and tension of the parts; purulent matter had formed, and the dressing was removed. On the fifth day a large incision was made on the outside of the thigh, from which much pus escaped. Poultices and hot fomentations were ordered, but sloughing set in, and on the seventh day the limb was removed. The patient died almost immediately afterwards. Such is a brief outline of the cases in which this remedy has been employed in University College, none of them of a favourable character. As a lotion, in the proportion of one drachm of the acid to a pint of water, this substance has long been used here. Its use is favourably spoken of, but the cases treated with it present nothing of an unusual character. Where the case required it, a stronger preparation than that referred to was occasionally employed.

At King's College Hospital, Mr. Willcox informs us that carbolic acid has been occasionally employed. In one case of compound fracture of the tibia, one part of the acid to three of olive oil was applied. The case did very well, so also in a compound fracture of the thumb, but in neither case was the progress unusually rapid. In a case of Mr. Wood's, in which an enormous tumour had been removed from the buttock, the surface of the wound was treated with chloride of zinc (40 gr. to the ounce), and dressed with a lotion consisting of 2 per cent. of carbolic acid in water. It healed remarkably well. In a compound fracture of the leg, there was much burrowing of matter, and the sinuses were injected with the carbolic acid lotion, and the same applied on lint. The wounds improved, when the carbolic acid was omitted for two days; the discharge returned, but on resuming the application, it again ceased. A man was gored in the thigh by a bull; the wound was large and deep, but was sewed up, and carbolic acid in oil (1 to 5) applied. This was discontinued after a time, and the wound began to slough. Subsequently it was treated in the ordinary way. In a good many cases carbolic acid has been used in solution, both for injection and for dressing, without any effect. It has also been employed as an injection in gonorrhœa, alone and with an alkali, but it seemed to exacerbate all the symptoms, and to increase the irritation and the tendency to pass water.

At Westminster Hospital Mr. Winckworth states that it is used by all the Surgeons, by Messrs. Holt, Holthouse, and Brooke, in the proportion of one to four or one to six of linseed oil. There is no experience of compound fractures, but it seems to do good in sloughing stumps, and in solution suits well for injecting abscesses. Mr. Holt uses it extensively in

the proportion of one drachm of the acid, with one drachm of laudanum, to eight ounces of water as an application to troublesome ulcers. It cleanses them and stimulates them; but after a time the dressing must be changed—it does not continue to do good.

At St. Bartholomew's Hospital all the Surgeons have used carbolic acid. Mr. Squire states that in Mr. Paget's wards the putty has been used in opening two abscesses, one in the thigh, the other in the lumbar region. Both are doing well; but Mr. Paget says they would have done quite as well without it. In the proportion of one drachm to a pint of lukewarm water carbolic acid is used for irrigation. Two cases so treated, one of injury to the ankle-joint, and the other of excision of the patella, have done well. It is also used on the face of almost every poultice, and with most water dressings, at least where there is any smell; but beyond keeping down the smell it does not seem to exercise any very wonderful healing power. It is also used spread on trays should there be any disagreeable effluvia in the ward.

Mr. Coalbank, House-Surgeon to Mr. Savory, informs us that this gentleman uses carbolic acid extensively. In a case of malignant disease of the ankle the limb was amputated at the thigh, and the flaps painted over with carbolic acid in glycerine (equal parts). The patient ultimately died exhausted by suppuration, and on examination it was found that the parts presented not the slightest traces of reparative action. In another case of amputation of the thigh, carbolic acid in glycerine (one in four) was applied with excellent results. The patient was up in a month. In a case of resection of the knee, carbolic acid in olive oil was applied for three weeks; the parts healed. In another case of resection of the elbow-joint the same application suited well. A fatty tumour was removed from the inner side of the thigh; the parts did not assume a healthy action, and pure carbolic acid was applied. A slough was formed, which came away, and the parts subsequently rapidly improved. The same course was adopted with an open and ulcerating gland of the neck with similar benefit.

Mr. McLean says that Mr. Holden uses carbolic acid in the proportion of two drachms to a pint of water to all wounds, both before and after suppuration, with good results.

In Mr. Coote's wards it has been used as a lotion and to clean the surface of wounds. Its application seems beneficial.

At Guy's Hospital Mr. Bryant has used carbolic acid in the proportion of one part of acid to three of boiled linseed oil; but it does not seem to do better than many other forms of dressing. He has used it in two amputations, three cases of excision of the breast, and in a good many wounds and burns. As a rule, the application is painful to cutaneous parts, though not to those more deeply seated. He has used it *for years* as a lotion in the proportion of two or three grains to the ounce of water.

Mr. Durham has employed carbolic acid in linseed oil (one to four) in a good many cases of compound fracture; some have done well, some badly; on the whole, he is pleased with it. In one case the acid in glycerine did very well. The lower end of the femur was fractured, and the knee-joint laid open; the blood clots were removed, and the cavity mopped out with a strong solution of the acid, and filled with lint soaked in the carbolic acid in glycerine. Not a bad symptom followed, and there were no constitutional symptoms whatever.

Mr. Cooper Foster used pure carbolic acid in one case of compound and comminuted fracture of the thigh. There was not so much suppuration as usual; in three months the boy was able to be about.

Mr. Buck, the House-Surgeon, has used it in a good many cases of accidental injury, *sometimes* with very good results.

At St. Thomas's Hospital all the Surgeons have used carbolic acid (two scruples of the fluid to a pint of water); they value it as a means of cleansing wounds, but not for any special effect it has in causing them to heal. Used in two cases of compound fracture, it was in one instance followed by sloughing; the other did well, but not remarkably so. It is also used for sloughing sores and for injecting chronic abscesses.

At St. George's Hospital, carbolic acid in water (1 to 40) has long been used as a lotion. Mr. Lee, the Surgical Registrar, tells us there is nothing special to report on it.

At St. Mary's, carbolic acid was years ago used as a lotion by the late Mr. Ure, and has also been employed by Mr. Samuel Lane; but its use has not been continued.

At the London Hospital, the acid was extensively used during the cholera epidemic as a disinfectant, but has not otherwise been much employed. Mr. F. M. Mackenzie, one of the House-Surgeons, informs us that Mr. Curling has used the acid in the form of a weak lotion (1 part of a saturated solution to 20 of water) in cases where he would otherwise have used chloride of lime, and with good results. Mr. Curling and Mr. Maunder have also employed it when opening chronic abscesses, especially in children. The cases have done well; but, as Mr. Curling remarks, children are favourable subjects. Mr. Maunder has also used it after amputation.

To sum up our experiences thus taken at second hand, we might say that the verdict of the Profession in London is in favour of carbolic acid as a disinfectant, but that its value as a healing agent is somewhat doubtful. There have been good cases, and there have been bad cases; but we suspect that the constitution of the individual has had quite as much to do with a successful issue as the carbolic acid has. Indeed, as will be seen from what has been said, more than one Surgeon of the highest standing has stated his conviction that several of the reported cases would have done quite as well with any other agent which would have thoroughly cleansed the wound from semi-putrid matter. As a dressing, it is doubtless of great value; but we must have more extensive information as to its alleged marvellous effects before we can accept them as the result of anything more than favourable circumstances.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

Mr. Spencer Wells at Professor Gross's Clinic.

We extract the following from the *Medical and Surgical Reporter* of September 28, a weekly journal published at Philadelphia, which also contains an account of the reception of Mr. Wells at New York by the Medical Faculty of that city during his recent holiday in America :—

Professor Gross, at the opening of the clinic, introduced to the class Mr. T. Spencer Wells, of London, the distinguished Surgeon and ovariotomist; Dr. John L. Atlee, of Lancaster, Pennsylvania; Dr. Washington L. Atlee, of this city; and Dr. Nicoleysen, of Norway. He took occasion to pay a flattering tribute to English Surgeons, Physicians, and obstetricians, to whom Medical science and art have been so largely indebted. From the time of Harvey, Sydenham, and Richard Wiseman, to the present, England has produced many distinguished Medical writers and Practitioners, making it a matter of thankfulness with us that we read and speak the language in which they wrote.

The operation of ovariotomy, which Mr. Spencer Wells has performed upwards of 200 times, and with such marked success, is, however, Professor Gross stated he was proud to say, of American origin. It was first performed by Dr. Ephraim McDowell, of Kentucky, in 1809, the patient surviving thirty-two years. He operated about thirteen times in all. The first double operation was executed by Dr. John L. Atlee in 1843, the case terminating successfully. Dr. Washington L. Atlee has performed the operation of ovariotomy more frequently than any other American—upwards of 160 times—the last having been completed only an hour ago.

Dr. Gross, after indulging in some further comments, in which he paid a high compliment to the moral status of the British Profession, stated that he had a case of abdominal tumour which he should bring before the class, in order to

afford Mr. Wells an opportunity of making some remarks upon the diagnosis and treatment of ovarian diseases. The subject, he added, was now attracting general attention, and he had no doubt they would be deeply interested in what his eminent *confrère* would say. At the close of Mr. Wells's lecture, Dr. Gross said, "If I were writing my autobiography, I should entitle one of the chapters, 'An Hour with the Ovariotomists.'"

A coloured woman was then brought into the amphitheatre, and Mr. Wells was told that she was a widow, forty-nine years of age, who had had two children before her husband's death twelve years ago.

Mr. Wells then said:

"Gentlemen,—In examining a patient, I am always in the habit of seeing what I can without asking any questions; and the first thing I notice in this patient is her colour. I have never seen a case of ovarian disease in a black woman, which is not surprising, as there are very few coloured persons in England. I have operated on a creole lady from New Orleans, and on a mulatto from Jamaica. Dr. Atlee tells us that, while ovarian disease appears to be rare among coloured people, fibroid tumours of the uterus are exceedingly common.

"The first question, then, to decide is, whether the tumour in this woman is ovarian, or a fibroid tumour of the uterus. And I lose here one aid which I should have in a white woman. In our race, a florid complexion is very common in patients suffering from fibroid tumour of the uterus, while a certain amount of pallor—or a chloro-anæmic aspect—is the ordinary accompaniment of ovarian disease. When a woman with a large abdomen comes into my consulting room, it is not uncommon for me to form a diagnosis in my own mind from the colour of her face. I cannot pretend to judge in any such way here, but this patient has a tolerably healthy look, she is not emaciated, and there is no swelling of the legs. Carrying on the examination, we assist the eye by measurement, and I usually take various measurements of the abdomen; one, circular, at the level of the umbilicus, one from the ensiform cartilage to the umbilicus, and one from the umbilicus to the symphysis pubis—thus observing whether the greatest increase of size is above or below the umbilicus—and then another, from the anterior superior spinous process of the ilium, on each side, to the umbilicus. If the distance from the right anterior superior spinous process of the ilium to the umbilicus is greater than that from the left to the same point, it is probable that the right ovary is affected rather than the left, and *vice versâ*, although there are frequent exceptions to this rule.

"The abdomen should next be examined with reference to the presence of fluctuation. In this case, my impression is, that there is fluid in the abdominal cavity, surrounding a solid or semi-solid tumour. If it were within a cyst, it would be less distinctly perceptible than it is. You see it distinctly on the very slightest impulse.

"The outline of the tumour should then be ascertained. A hard distinct outline is in this instance readily perceived, extending from six or eight inches above the umbilicus, almost to the pubes. The tumour can be pushed about, and seen to move underneath the abdominal wall, and the hand can be introduced below it on each side. It does not make any traction on the umbilicus as it is moved, which is a pretty sure sign that there is no close attachment to the abdominal wall.

"On feeling the surface of the tumour, it is found to be hard and solid, with outgrowths or projections over it, like marbles or walnuts, some of them a little movable, with deep sulci between them. This nodulated irregular surface of a hard solid tumour is exceedingly common in fibroid enlargement of the uterus, but very uncommon in ovarian tumour. It is very unusual to find an ovarian cyst so large as this one is, without distinct fluctuation in some part of it. None can be made out in this instance—nothing but a hard, movable, solid tumour, surrounded with fluid, free in the peritoneal cavity. I have scarcely a doubt that this case is one of fibroid tumour of the uterus, and not one of ovarian disease. Auscultation is of value in settling this question. I have only once or twice heard a vascular murmur in an ovarian tumour, but in fibroid tumour of the uterus a vascular murmur is often perceptible; sometimes tubular, as if from large vessels, sometimes more vesicular, as if from a great number of small vessels.

"The stethoscope, in this case, placed in the iliac region, does not detect any murmur, but an arterial impulse or beat is obtained, synchronous with the pulse, projected, as it were, from the aorta through the solid substance of the tumour. From the almost inaudible character of the murmur, one would say that the tumour is not very vascular, but rather an outgrowth than an enlargement of the whole of the body of the uterus itself.

"All the information possible should be obtained from the abdominal wall, but an internal examination very much clears up any doubt as to the diagnosis in these cases. In this patient the vaginal examination quite bears out the diagnosis made through the abdomen, inasmuch as the uterus is drawn up out of reach. This often happens in enlargements of the uterus, while it is very rare in an ovarian tumour that the cervix uteri cannot be felt, unless the ovarian tumour is detected low down in the pelvis. If the pelvis be empty, and the uterus out of reach of an ordinary examination, as in this case, that fact is almost of itself sufficient to remove any doubt as to the diagnosis. The sound introduced into the cavity of the uterus, to see if it be elongated, is often of service in determining the nature of the enlargement. Frequently, however, although the womb is elongated, the cavity is so twisted and bent, that the sound cannot be introduced up to the fundus, and mistakes are often made in this way. If the sound can be passed up eight, ten, or twelve inches, of course it clears up the case completely; but, as a rule, I do not place much reliance upon the opposite condition, when the sound will not penetrate far, because the uterus may be large, and its cavity small or distorted."

The patient having been taken away, Mr. Wells added:—

"I have removed these large fibroid tumours of the uterus, but with very ill success. In one instance, one which weighed twenty-six pounds, the patient lived four days; both ovaries were removed with it, and from this and other cases which I have published, I have been led to the opinion that unless there is some very serious danger to life from hæmorrhage, or pressure on some vital organ, these large fibroid tumours of the uterus are better left alone until there is some very urgent necessity for interference."

Mr. Wells then showed several instruments which he used in ovariotomy, and made remarks on different modes of dealing with the pedicle. He then said:—

"As to the results which I have had in ovariotomy. I have operated in two hundred and twenty-eight (228) cases. In the first one hundred patients, sixty-six (66) recovered, thirty-four (34) died; in the second hundred, seventy-two (72) recovered, and twenty-eight (28) died; and in the twenty-eight cases of the third hundred, four died and twenty-four recovered. Out of the two hundred and twenty-eight cases one hundred and sixty-two (162) recovered and sixty-six (66) died, giving a mortality of 29 per cent. This is a mortality better than in many serious Surgical operations which no one can think of calling unjustifiable; better than in amputation at the hip-joint or of the thigh; than in the operation for strangulated hernia; than in ligature of the iliac artery, etc. All these Surgical operations, which are performed without hesitation, give results less favourable than have been obtained in ovariotomy, even when both favourable and unfavourable cases have been included. For this operation is often performed when there can be but little chance of recovery, in the last days of life, at the solicitation of the patient that she may not die without some effort having been made to save her. The results would be much more favourable if one could decline to operate on any but favourable cases. In a certain number of cases one begins the operation, but is unable to complete it. This occurred to me eighteen times. In seven cases I removed both ovaries, having found after removing one ovary that the other was diseased; four of these patients recovered and three died. Twice I have removed an enlarged ovary after the removal of the other some time before. In one case another Surgeon extirpated the left ovary some nine months before I did the right, which began to enlarge soon after the first operation. The patient died. In another case I operated upon a patient who remained perfectly well for a year, when the other ovary began to enlarge, and I removed it eighteen months after the first operation. This patient recovered, and remains well, as I said just now. In eight or nine per cent. of my operations I have begun the operation and not been able to complete it, or have found that I had made an error in diagnosis. I do not think this is a much larger proportion of failures or mistakes than may be expected in other serious Surgical operations. Mistakes will occur sometimes in spite of the greatest possible care. The Surgeon performs lithotomy, and possibly finds there is no stone; or he may puncture some collection of fluid and find it is an aneurism. These errors are gradually being eliminated as one advances in the knowledge of disease. In ovariotomy we have not the literature or the traditions of centuries to guide us, as in the better known operations,

but Dr. Atlee, following Dr. McDowell and other American Surgeons, and we in England, have had to find our way along new untrodden paths. But, with all these difficulties and disadvantages, I believe that in a few years, if we faithfully make known our errors and show others the way by which we learn to avoid them, the operation of ovariotomy will be performed hereafter by many of you, gentlemen, with far greater success than it has been by us."

REVIEWS.

1. *On the Diagnosis and Treatment of the Varieties of Dyspepsia.* By Wilson Fox, M.D. Lond., F.R.C.P., Professor of Pathological Anatomy (now of Clinical Medicine) at University College, London, and Physician to University College Hospital. London: Macmillan and Co. Pp. 243.
2. *A Treatise on the Function of Digestion: its Disorders, and their Treatment.* By F. W. Pavy, M.D., F.R.S., Fellow of the Royal College of Physicians, Senior Assistant-Physician to, and Lecturer on Physiology at, Guy's Hospital. London: John Churchill and Sons, New Burlington-street. Pp. 217.
3. *The Indigestions or Diseases of the Digestive Organs Functionally Treated.* By Thomas King Chambers, Honorary Physician to H.R.H. the Prince of Wales, Consulting Physician and Lecturer on the Practice of Medicine at St. Mary's Hospital, Author of "Lectures, chiefly Clinical," etc. Second edition. London: John Churchill and Sons, New Burlington-street. Pp. 337.
4. *On Diseases of the Stomach, the Varieties of Dyspepsia, their Diagnosis and Treatment.* By S. O. Habershon, M.D. Lond., Fellow of the Royal College of Physicians, Physician to Guy's Hospital, Lecturer on Materia Medica and Therapeutics at Guy's, late Demonstrator of Morbid Anatomy and Curator of the Museum, late Physician to the City Dispensary, Fellow of the Royal Medical and Chirurgical Society, etc. London: Robert Hardwicke. Pp. 258.

From the date of Brinton's great work "On Diseases of the Stomach" up to a comparatively recent period, the subject of that most troublesome of maladies, dyspepsia, would seem, were we to take contemporary literature as our guide, to have been well-nigh overlooked in England. That such was not the case the patient and careful investigations of the disease recorded in the works whose titles head this paper will most thoroughly prove. Indeed, it might seem that on such a comparatively limited subject as dyspepsia we had now a superfluity of works. That such is not the case we hope to show. Each of the works takes up a distinct and definite position both characteristic and honourable to their authors. The work of Dr. W. Fox, which we have placed first, as is most justly its due if we take erudition and scientific information into consideration, is, as might be anticipated from its author's distinguished position as a pathologist, founded on the morbid conditions encountered in the stomachs of those who have suffered from primary or symptomatic dyspepsia. Dr. Pavy again, whose reputation as a physiologist needs no praise of ours to enhance it, has selected the natural processes of digestion as the basis of his work. Dr. Chambers, on the other hand, despairing of doing justice to a subject, which he has studied for years, by the physiological method of arrangement, has fallen back on the clinical plan, and has, with the skill of a master of the English language, narrated the outlines of 260 cases of imperfect digestion selected from among the many patients who have consulted him. Apart entirely from the merits of this work, which have been so highly appreciated by the Profession that a large edition has been exhausted in an unprecedentedly short time, the book is one of the most readable in Medical literature—such a one, in fact, as a wearied Practitioner, anxious to gain information, but too tired to take to heavy work, would be delighted to pick up in a spare half-hour. Dr. Habershon, again, has selected the symptoms of the disease as his guide to its elucidation, and that he has been successful in doing so, no one familiar with his treatise on diseases of the abdomen will need to be informed.

Dr. Wilson Fox has followed up a field of research, in which Dr. Handfield Jones and Dr. Fenwick have been fellow-workers. They have sought to establish the fact that dyspepsia is not in all cases a mere functional disorder only, but that the stomach itself undergoes well-marked morbid changes, corresponding with the character of the malady. Two beautifully executed plates illustrate this portion of Dr. W. Fox's work. A further advantage is derivable from the fact that the volume, of which we now speak, is enriched with numerous references to the literature of the subject. Unfortunately, however, Dr. Fox has borrowed from the Germans something more than a portion of the valuable facts incorporated in his book. His style is not all that could be wished, being, in certain passages, somewhat involved, and requiring careful reading to disentangle the true meaning; but, apart from this, there is nothing in it which is not deserving of the highest praise.

Dr. Pavy's work is, for the most part, physiological, treating of the various steps in the process of digestion from mastication and insalivation downwards, the author pointing out at each step how the neglect or insufficient performance of any one process may give rise to symptoms of dyspepsia. Dr. Pavy also treats at considerable length of the means whereby the stomach escapes from self-digestion, arguing for his well-known doctrine that the alkaline blood opposes the acid gastric secretion, and thus prevents the solution of the walls of the stomach in its own juices. An important portion of this work is devoted to the elucidation of the changes the food undergoes in the intestines and the mode of its absorption. The painful or otherwise troublesome symptoms which entail an insufficient performance of this function are also described.

Dr. Chambers's book is nothing if it is not practical. It is made up of short notices of many cases, strung together by a sort of connecting-link of comment. The result is highly pleasing as well as instructive. Abandoning old classifications, Dr. Chambers has this time selected as his basis the variety of food which is badly digested, whether starchy, albuminoid, fatty, or watery. Another extremely practical division is that which treats of the social habits leading to indigestion. This portion of the work is especially amusing and interesting, as it is written in a brilliant epigrammatic style, such as is rarely encountered in Medical literature. The remaining portion of the book is occupied with the symptoms looked on as characteristic of dyspepsia—as pain, vomiting, flatulence, diarrhœa, constipation, etc.—with the mode of treatment best adapted for each class of cases.

Dr. Habershon's work more closely approximates to the ordinary style of monograph than any of the books we have yet referred to. Commencing with several chapters on general subjects relating to the stomach, he next proceeds to discuss atonic dyspepsia, dyspepsia from congestion, inflammatory dyspepsia, hepatic dyspepsia, rheumatic and gouty dyspepsia, renal dyspepsia, mechanical dyspepsia, sympathetic dyspepsia, fermentative dyspepsia, duodenal dyspepsia, degeneration, ulceration, and cancer of the stomach. His work has been carefully performed, but, as will be seen from the form of classification adopted, the student is not brought so closely face to face with actual disease as in some other treatises. We shall not now enter into a discussion of the relative values of these works; we have sufficiently pointed out their scope and tendency to enable our readers to judge which of them will be most suitable for their wants. We, however, propose shortly to take up this most important subject at greater length, and to give our readers the benefit of the most recent investigations into its nature, cause, and cure.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

November 9.

The following successful case of ovariotomy, by Dr. A. F. Graham, of this town, is exciting very much interest in the North of England, in consequence of the operation having been again and again decidedly declined by two of the most eminent ovariotomists of Edinburgh and London, owing to the formidable abdominal and pelvic adhesions which were believed to exist:—

The patient, Mrs. M., of Carlisle, aged 26, and nine years married, has borne two living children and had one miscarriage. Shortly before marriage she was seized with intense pelvic pain, which, however, subsided after two days, but recurred one month after the birth of her first baby, and lasted for the same length of time as it had done previously. A second child was born eleven months after the first, which had lived but a few weeks; and two months subsequently to this second delivery the patient remarked a central swelling, which left her almost as large as at the full period of gestation. For this she consulted a Medical man, who at first regarded it as

due to flatulent distension, and employed treatment accordingly; but, as it went on increasing, a further examination was made, and an ovarian tumour discovered. It was not, however, until after the expiration of fourteen months, and when walking had become very laborious, that it was tapped, and three gallons of clear straw-coloured fluid drawn off. This was in January, 1861. It was tapped a second time, and the same quantity removed, in February of the year following, and two months later it was injected with tincture of iodine, under the hope that a radical cure might be effected. Agonising pain, accompanied by incessant vomiting, was suffered for seventeen hours after the injection, which did not appear to check the progress of the disease in the least, while it had the disadvantage of obliging the patient to keep her bed for a week. In June of this same year an eminent ovariotomist, of Edinburgh, was consulted, who, on examination, discovered that pregnancy existed. The patient returned home, and in a month's time miscarried. When well enough, she went back to Edinburgh with the intention of having ovariotomy performed by the gentleman who had been previously consulted there; but he decidedly refused to operate, expressing it as his opinion that death must inevitably follow within a few hours after any attempt to remove the tumour. She was therefore simply tapped. Six subsequent visits were paid to him, at each of which tapping was performed, and ovariotomy positively declined by the operator, though urgently desired by the patient. So earnest was she, indeed, to have the operation performed that she soon afterwards undertook a journey to London for the purpose of consulting a most distinguished English ovariotomist. His opinion, however, being as strongly opposed to extirpation as the one which had been given to her before, she returned to Carlisle, after having paid him three visits, with the mournful conviction that death was inevitable. Seven times more was the fluid drawn off, but the accumulation became so rapid that at length only seven weeks intervened between any two tappings, and this, too, although, at the expense of several days and nights of intense pain, they were deferred to the utmost possible limit. In September of the present year, Dr. A. F. Graham, of Liverpool, when passing through Carlisle during his holidays, was asked to see the case by Dr. Walker, of that city, and, after a careful examination, undertook to perform ovariotomy. The circumstances which chiefly influenced him in coming to such a decision in the face of the amazing difficulties which were obviously present, were the youth, health, and great moral courage of the sufferer, and her sanguine belief that if the tumour could but be removed she should recover. Lodgings were, therefore, taken in Liverpool, the operation performed, and the patient is now perfectly well. The examinations made by Dr. Graham showed that there were either two tumours or an hour-glass contraction of a single one; for at one part of the abdominal wall there was a perceptible depression of the surface of the swelling. Small nodular bodies were felt through the parietes, especially above the umbilicus. The vagina was elongated, and seemed to end in a *cul de sac*, as neither os nor cervix uteri could be felt—the uterus, indeed, being drawn up and fixed quite above the pelvic brim. Through the posterior wall of the vagina, the tumour could at once be felt, and by the rectum it was also felt within an inch of the anus. From these examinations, extensive pelvic and abdominal adhesions were believed to exist.

The operation was performed on Saturday, October 5, Drs. Chalmers, Walker (of Carlisle), and Carter being present in addition to the operator. A difficulty arose at the very outset from the impossibility of chloroform being given thoroughly, in consequence of the great depression that came on so soon as anæsthesia was induced. An incision nine inches long was made in the median line through the cicatrices left by the trochar-punctures. The tissues were united together into a thickened gristly mass, so that it was very difficult to tell with certainty when the tumour was really reached. When it was made out, its whole anterior surface was found to be adherent to the abdominal wall, and much time was consumed in separating them from one another. This was effected mostly by means of the adhesion clamp and hot iron, and in any part where there was considerable vascularity the adhesions were gathered up and temporarily secured by a strong silk ligature before they were severed. In every instance where the hot iron was used, a solution of carbolic acid in linseed-oil (1 to 4) was applied to the charred surface. The tumour was next seized by a vulsellum, and nearly three gallons of greenish purulent fluid drawn off by means of Wells's cutting canula, with which it was tapped. On the hand being again introduced, most extensive adhesions to all the pelvic viscera were found—viz., to the rectum to within an inch of the anus, to the entire neck, body, and fundus of the uterus, and slightly to the bladder. The attachment to the cornu of the uterus on either side was by means of a very dense fleshy structure, closely resembling the uterine tissue itself. Slowly and with very great difficulty these were one by one overcome, and the tumour, which seemed originally to have sprung from the right ovary, at length removed. The abdomen was now well cleaned by means of sponges dipped in a warm aqueous solution of carbolic acid (1 to 30), and in the course of this proceeding the second tumour came to light. This was as large as an adult head, and reached, by means of a very long pedicle, from the under surface of the liver to the right ovary. It was extensively adherent to the liver, gall bladder, colon and cæcum, while the pedicle was confused with all the structures with which it lay in contact. The adhesions were overcome in the same manner as before, and the tumour removed untapped. It was unilocular, had evidently never been punctured, and was filled with a very dark treacle-like fluid. The temporary ligatures were all now removed, by cutting through the tissues constricted by them with the sharp-edged cautery, every part thoroughly examined, all hæmorrhage subdued, and the wound closed by eleven points of silver suture, the sutures being passed through all the structures except the peritoneum. Over the surface a fold of lint dipped in a solution of carbolic acid in oil (1 in 4) was laid, bandages applied, and the patient removed to bed. The whole operation took more than three hours, and, on its being completed, one of the Surgeons present, himself a successful ovariotomist, remarked, "Well! if she gets over this, anything can be recovered from."

For some hours after the patient's removal to bed there were no signs of reaction, the pulse continuing very small, the surface cold, and the voice suppressed. By the use of mustard poultices, warm bottles, and small frequent doses of hot brandy and water, it was, however, at length induced. During the first night she vomited several times, though about two hours' sleep was procured. Through the second day also the vomiting continued, though at longer intervals. Milk, ice, lime-water, and a little beef-tea were alone given. There was a little sleep during this day and for about three hours in the night. On the third day tympanitis came on, and as there was much restlessness a morphia suppository was given—the first opiate since the operation. It was followed by several hour's sleep. Sickness continued at intervals until the fifth day, when an enema of warm water was administered, and the bowels relieved for the first time. Still the tympanitis increased, and concomitantly with its commencement and increase an aphthous condition of the mouth came on, which caused much trouble, and only subsided when the tympanitis was relieved. On the seventh day a little sole was eaten. On the ninth, the wound having entirely healed by the first intention, all the stitches were removed. The bladder was very irritable, and the water had frequently to be drawn off, until a little cretaceous-looking deposit which had collected near the orifice of the urethra was discovered and removed, when there was no further trouble in this respect. Sleep was procured by the use of Battley's sedative solution of opium. The tympanitis all this time was considerable, though it did not seem to cause the patient anything like the usual inconvenience, and from this circumstance and a peculiar gurgling sound heard on employing gentle pressure Dr. Graham thought that air was accumulated in the peritoneal cavity, and trusted it might become absorbed. On the nineteenth day, when the abdomen was examined a pimple was seen, which on gentle pressure broke, and through the orifice formed there was a rush of gas, followed by a stream of pus, which continued to flow for twenty minutes, and altogether amounted to three pints. Directly after this the thrush began to disappear, and the case to make rapid progress. The discharge grew less and less, and for some time now—five weeks after the operation—the patient has been to all intents well, and is looking joyfully forward to returning to Carlisle in a few days.

A more severe case than the above it is hardly possible to imagine. The patient had been tapped sixteen times, injected with iodine, unhesitatingly condemned by two of the most conscientious and distinguished of living ovariotomists (to differ from whose united opinion would seem almost presumption in any single man), and yet she is now in the enjoyment of complete health; and I have been tempted to give the history at such length, under the hope that the benefits which this operation has already conferred might be yet further extended by showing under what truly desperate circumstances valuable

lives may be spared. Not a little of the success of this case and of others which have rewarded the enterprise of the same skilful operator, must be attributed to the extreme attention that was paid to the minutest particulars that could even remotely affect the result. Very much was here also due to the hopefulness of the patient, to the fact of the operation having been performed in a private house and not in a hospital, and to the unremitting attentions of a most admirable nurse.

The larger tumour consisted of one principal cyst, capable of holding from three to four gallons, and many smaller ones, in each of which was pus, diffused through the interspaces of a dense cauliflower growth that filled the interior. It was this semi-solid portion alone which occupied the pelvis, and gave to the touch the feeling of a perfectly solid mass.

IRELAND.

Dublin, November 5.

As has been my custom for some years past, I shall endeavour to give you a brief account of the addresses and other proceedings which have marked the opening of the winter session in some of the Medical Schools in this city. Of the former, the first in order was a very able address delivered on October 28, by the Professor of Chemistry (Dr. Barker), in the theatre of the Royal College of Surgeons, Dr. George H. Porter, the Vice-President of the College, occupying the chair. In commencing, Dr. Barker paid a graceful and well-merited tribute to the long and efficient services of the late distinguished Professor of Anatomy and Physiology, Dr. Jacob, on whom the task of inaugurating the session in the College had for many years devolved, but who has now, after very nearly half a century's enjoyment of a more than European reputation, sought in retirement that repose which he has so well earned. Dr. Barker next alluded to the vast improvements effected since the close of the preceding session in the school of the College, the enlargement by one-third of the dissecting-room, which has been provided with all the appliances requisite for the comfort and convenience of the pupils, and which is attended by a greatly increased staff of demonstrators. In other departments of the school, too, great improvements have been made. Dr. Barker next addressed his hearers, as students of one of the noblest of professions, on the necessity of exerting both their moral and intellectual energies, and pointed out the great advantages which the system of competitive examination places within their reach. Having dwelt upon the necessity of availing themselves to the utmost of every opportunity of acquiring a practical knowledge of their Profession, Dr. Barker proceeded to say:—

"There is one other point which I trust you will pardon my alluding to in a very few words. You are preparing for a Profession in which you may be thrown into the society of the most cultivated, noble, and wealthy classes of society, as well as of the poorest, most illiterate, and uncultivated. No class of society can be independent of your aid, and therefore you should direct your attention to the cultivation of those habits which will render you suitable companions for any class. Courtesy of manner to all, gentleness and kindness to the poor when suffering from disease, truthfulness and candour—these are almost as essential to you as a knowledge of your Profession. If you engage in private practice, if you enter the army or navy, you will be thrown into the society of gentlemen, and it will depend upon the habits which each of you has formed, and the manners you have cultivated, whether you will be treated as gentlemen and equals, conferring favours by exercising your Profession, or as mere hirelings well paid for performing a servile duty. Let me urge you, therefore, as students to cultivate those habits which will conduce to form the manners of gentlemen—manners not dependent on birth or wealth, but on high principles, correct feelings, and sound education, and especially in the intercourse you must have with the poor and ignorant, remembering that their needing your aid is a strong argument for your affording it in such a manner as may not aggravate the sufferings of disease by want of kindness and sympathy."

In reference to their studies, Dr. Barker made the following noteworthy observation:—

"You should not look upon them merely as a passport to affluence or competence, but as a schooling of your minds to raise them higher in intelligence and power, and for the advancement of your intellectual nature. Your studies should train your mind in improved methods of thought—they will also have extended your mental vision into the regions of the infinite; and as the astronomer by his telescope views nature in the outer realms of space, and thus expands his views of the great laws which govern the universe, you have opportunities by the study of molecular forces, by the revelations of the micro-cope and the wonders displayed by it in the investigation of anatomical structure and function, to produce similar moral effects on your own minds by the contemplation of wonders even more startling than those revealed by the telescope; and such studies should, and I hope will, induce you to consider what position you should hold in the scale of creation, and how far you can concur in producing that harmony which should be as paramount in the moral as we perceive it to be in the physical world."

In speaking of the high character which attaches to the diploma of the Irish College of Surgeons, Dr. Barker quoted the remark of an intelligent American, that there are "two manufactures of which Ireland may be proud—Surgeons and linen:" a truthful, added the lecturer, if not a very graceful commentary, borne out by the names of Dease, Colles, Crampton, Carmichael, Cusack, Porter, and others, who during their lives shed lustre on their Profession and their College. Dr. Barker concluded his very able and interesting lecture with a useful sketch of the several openings which lie before the student when he has obtained his Surgical and Medical qualifications, contrasting the several branches of the public service with one another, and with the opportunity for exercising the great virtues of hope and patience afforded to him who decides on "settling down to wait for practice in a large town or city."

The 115th session of the Meath Hospital was inaugurated on Monday, the 4th inst., with an address by Dr. Maurice Collis, one of the Surgeons of the Hospital, in the course of which he gave an interesting history of the institution from the opening of the old Meath Hospital on the Coombe down to the present time. Among the most important advances made in Surgery since the small beginnings of the old Meath, the learned lecturer enumerated the treatment of aneurism by compression; the gradual introduction by the French Surgeons of lithotrity; and that, by Dr. Mason Warren, of Boston, lately removed by death, of the operation for the closure of clefts of the hard palate. Dr. Collis referred also to the vast impetus given to Surgery by the production of anæsthesia, and to the great strides made of late years in pathological knowledge, as well as to the numerous improvements in mechanical appliances for all purposes connected with the study and practice of Surgery. In conclusion he drew, from the history he had sketched, useful lessons for the guidance and encouragement of the junior portion of his auditory.

The distribution of prizes awarded at the examination of 1866-67 in Steevens's Hospital and Medical College, took place on Monday, the 4th inst., in the Hospital, the Very Reverend the Dean of St. Patrick's presiding. The following is a list of the successful candidates:—

Cusack Medals and Exhibitions.—Senior: Richard Bookey, Carnew. Middle: Thomas M'Grath, Castlebellingham. Junior: Abraham Colles, Dublin. Surgical Clinical Prize: John Kennefick, Dungarvan. Medical Clinical Prize: Septimus Sexton, Dublin. Midwifery Assistants: Mr. Joseph Lawson, Mr. George A. Gloag.

Certificates of General Attention and Proficiency at Terminal Examinations.—Frederick C. Adey, Chichester A. Bell, Thomas L. Bookey, John G. Burke, Henry R. Hudson, Robert Jones, Daniel Lombard, Thomas Power, Henry Suffield, Richard Swan, James G. Wall, Patrick R. Webb, Thomas R. Webb, Thomas M. Wills, John Wood.

The inaugural address at the Mater Misericordiæ Hospital was delivered by Dr. Hughes, Senior Physician to the Hospital. The speaker concluded an able lecture, in which he dwelt at considerable length upon the importance to the student of Hospital attendance, with the following weighty remarks:—

"I will not follow," he said, "the stereotyped custom of reading you a lecture upon ethics. I am proud to state that our class is recruited every year by students in no way inferior to those of the other liberal professions, and whose demeanour and conduct is most satisfactory. I find the gentlemen who form our classes docile, attentive, respectful to those in authority, and kind to the sick poor. I find them, one and all, anxious to acquire information to qualify them for the proper practice of their profession; but I also find, and I regret to state it, no slight impediments thrown in their way—I mean those regulations to which I have already referred, of licensing bodies, and the arrangements of the schools, which interfere with and curtail the student's time for Hospital attendance. It is mortifying to me, and it must be to others

similarly circumstanced, to see our students hurrying off from the Hospital to attend some theoretical discourse on Medicine and Surgery at a school, turning aside from the original portraits of disease to look after copies (sometimes not very good ones), and to spend on the benches of a lecture-room that valuable time which might be so well employed in familiarising them with diseases in the Hospital ward. I wish that the busy hand of reform, so advantageously employed in adapting institutions to the present wants and condition of society, would in this instance aid reason against custom and power, to relieve our students from a compulsory attendance on the occasions to which I have alluded; for until this be effected we cannot hope to supply the public with competent Practitioners. Gentlemen, I may remark, in conclusion, that you have great advantages beyond those enjoyed by your predecessors. It has been well observed with regard to science, and the same may be said of Medicine, that the young men are the practical elders, inasmuch as they are schooled in the latest experience science has gathered up, while their seniors are cramped by the dogmas they were schooled to believe when the world was some decades the younger. Use these advantages, then, for your interest if not for the interests of humanity. Remember that professional knowledge may lead you to wealth and honours, or, if from circumstances these are unattainable, it will lead to an inward satisfaction, to a peace of mind, which wealth and honours cannot bestow. Such rewards as these are not, however, to be gained without great labour. The time was when every member of the Profession, with moderate ability and ordinary industry, was certain of success, but circumstances are changed—the Profession is stocked with able and learned men, and promotion in the army, the navy, and the colonies is to be attained only by competition. You must not then look for success to adventitious means; you must depend upon your acquirements—

> "'Honour travels in a strait so narrow,
> Where one but goes abreast. Keep then the path,
> For emulation hath a thousand sons,
> That one by one pursue: if you give way,
> Or hedge aside from the direct forthright,
> Like to an enter'd tide, they all rush by,
> And leave you hindmost.'"

GENERAL CORRESPONDENCE.

DR. BARNES ON THE ELIMINATION OF THE CÆSARIAN SECTION.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Radford puts the very important question whether I think the Cæsarian section can be, or ought to be, excluded in the case of pelvic contraction below two inches in the antero-posterior diameter, if we have the opportunity of bringing on labour at seven months' gestation. Dr. Radford, I believe, is in favour of extending the Cæsarian operation to some cases, at least, in which delivery after craniotomy is possible. I cannot assent to Dr. Radford's views without considerable reserve. The conclusions I have arrived at, as to the conditions which justify or compel resort to the Cæsarian section, I hope to explain fully in a future lecture. My intention in the relative tables of pelvic contractions and operations given in the lecture published on November 9, was simply to set in contrast the operative measures necessary in equal degrees of contraction under labour at term and at seven months. I presume it will be admitted generally that if delivery at term can be effected in a pelvis contracted to three inches by lessening the head, it should be done. If so, it follows that if delivery at seven months can be effected in a pelvis contracted to two inches or under by lessening the head, it should also be done. There is no more reason for performing the Cæsarian section in the one case than in the other. The two cases are simply reduced to equivalent factors.

If I am asked whether it is possible to deliver a woman safely by craniotomy at seven months whose pelvis is contracted to two inches in the antero-posterior diameter, I answer most unequivocally that it is possible; and being possible, this mode of delivery ought, as a general rule, to be preferred to the Cæsarian section, which gives at best but a very indifferent chance to the mother.

I will go further, and say that I have safely delivered a woman at seven months, whose pelvis did not give an inch and a half in the conjugate diameter. Of course it was a very much more difficult operation than the Cæsarian section. But it is our duty to cultivate that skill which shall secure the utmost saving of human life. I am, &c.

ROBERT BARNES.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 5, 1867.

T. B. CURLING, Esq., Vice-President, in the Chair.

DR. BASTIAN exhibited a

LUNG SHOWING THE EARLY STAGE OF CIRRHOSIS,

which was taken from a man admitted into St. Mary's Hospital under the care of Dr. Sibson. The man was moderately well nourished, and had been suffering from cough for many years, though he had been seized with symptoms of acute bronchitis only two days before admission. There was flattening of the chest anteriorly on the left side, and marked dulness over a great portion of this half of the thorax, whilst on the opposite side there was no dulness, but signs of recent bronchitis. There was great lividity of the face, and the man died after two days from the severity of the acute attack. Post-mortem: The upper part of the left lung had to be cut out of the thorax, owing to adhesions and the formation of a tough material of fibro-cartilaginous consistence at the surface, nearly one inch thick in some parts. Almost the whole of the upper lobe was dense and hard, being intersected in all directions by bands of white fibrous tissue. The lower lobe was also somewhat consolidated and indurated by new fibrous tissue. In the upper lobe there were a few dilated bronchi. No tubercle existed in this lung. The opposite lung also contained no tubercle; it was large and healthy, save that it presented all the appearances characteristic of acute bronchitis. Not a particle of tubercle in other organs of the body. Dr. Bastian had collected and analysed thirty cases of this rare disease. Two or three of these had been reported under the head of "dilated bronchi," and one or two others as cases of chronic pneumonia. He had found, from statistics furnished by Lebert and Barth, that by far the greatest majority of cases of dilated bronchi occurred in individuals who were over 60 years of age, whilst a very large proportion of the cases of cirrhosis of the lung occurred between the 16th and 40th year. Dilatation of the bronchi was an accident rather than an essential in cirrhosis, and either did not occur, or was very slightly marked, in one-third of the cases. With regard to chronic pneumonia, he was convinced, from the descriptions of Grisolle and Charcot, that the pathological condition to which they applied this name was in some cases the immediate sequence of an acute pneumonia, and, moreover, that the tissue change met with was precisely similar to that occurring in the early stage of cirrhosis. But inasmuch as in this condition the whole lung substance was infiltrated with a new fibre growth, its anatomical character was totally different from that of pneumonia, and therefore the name which had been hitherto given to it was altogether unsuitable. It was not a persistence of the anatomical characters of the acute disease, but the setting up of an entirely new process, merely a sequence of the original disease. Whilst Dr. Bastian believed, therefore, that the disease was usually a chronic one, in which a growth of new fibre tissue gradually took the place of the proper lung substance, he believed that in certain rare cases its onset might be more acute, and be the immediate sequence of an acute pneumonia.

Dr. WILSON FOX remarked that Dr. Bastian's exhaustive and valuable analysis of the published cases of the so-called cirrhosis of the lung required, in his opinion, some revision of the grounds on which this term should be retained as a nosological title for a distinct form of disease He was not prepared absolutely to deny that the state of the lung designated by this term might, like the analogous condition of the liver, be caused by interstitial thickening, but he was nevertheless of opinion that it was of extreme rarity as an idiopathic disease. One reason against an extended application of the term to other organs than the liver was that, independently of its etymological incongruity, it is not applied to the kidney, when in the indurated contracted state of that organ we have a counterpart of the condition thus designated in the liver

much more perfect than in any state presented by the lung. The conditions under which the so-called cirrhosis or fibroid induration appears in the lung are, he believed, manifold, but dilatation of the bronchi was rarely a simple condition as connected with this state, and the two are by no means necessarily associated. Two of the most common causes of dilatation of the bronchi are broncho-pneumonia after measles and chronic bronchitis with emphysema, but in neither of these diseases was the dilatation commonly found associated with marked forms of cirrhosis or induration. The most frequent cause of the fibroid induration of the lung was states of so-called tubercle, and Dr. Fox believed that this fibroid induration was a far more common termination of the tubercular process than the cheesy changes, softening, and subsequent formation of cavities, which were ordinarily taught to be the regular course of this disease. A discussion on the nature of tubercle and definitions of what was and what was not tubercle would be out of place on this occasion, but Dr. Fox believed that the soft grey granulation might undergo one of two series of changes. It might either soften as ordinarily described, but much more commonly it became hard, and subsequently was organised into a dense tissue of quasi-fibrous nature and cicatricial characters, which tissue also tended to extend around tubercular formations and simultaneously to invade large tracts of the lung. Whether all the pathological formations of this indurating nature to which the term tubercle was applied really were of one origin, was a question which would extend beyond the limits of the present discussion, as also would the questions as to their essential nature, and whether they were inflammatory or not, or whether other inflammatory processes could not have the same termination; but it was not uncommon to meet with the soft grey granulation associated with fibroid induration either in the same lung or in that of the opposite side. Dilatation of the bronchi was a very common complication of all these states; the bronchi, though their walls were thickened, had their elasticity impaired by the inflammatory processes invading them, and yielded to the forced expiratory efforts made in coughing in a manner similar to that which Dr. Jenner had shown to be the chief cause of the production of emphysema in cases of acute bronchitis. If the term "cirrhosis" was to be retained, Dr. Fox thought that it should only be so with the proviso that it represented the termination not of any single one, but of many different pathological conditions, of which what we at present call tubercle is one of the most constant and frequent.

Dr. Moxon said he was surprised that tuberculous disease had not been alluded to by Dr. Bastian in his statement of the relations of what he called cirrhosis of the lung. His own experience led him to agree very closely with what Dr. Fox had just ably stated. He had pretty frequently met with a condition of lung in which the tissue was shrunken, excessively hard, marked with almost tendinous interlobular septa, and covered with a very thick and excessively tough pleura. This condition came quite within the description of cirrhosis which Dr. Bastian had just given; yet he (Dr. Moxon) never had met such a case without finding tubercles present in and about the indurated substance of the lung. The other condition of chronic pneumonia, which may be described as a hard form of hepatisation, is quite unlike this excessive induration. The lung in chronic pneumonia is not shrivelled, and, though rather hard and elastic, is comparatively readily broken down. He regarded the so-called cirrhosis as an excessive preponderance of that induration which is one of the factors of the complex state we call phthisis.

Dr. Simon said that in the case referred to there was no tubercular disease whatever, only much bronchitis. He thought it better to admit the possibility of the disease being non-tuberculous, as thereby, not referring all manner of diseases to one source, we should likely attain to a higher knowledge than on the other system.

Dr. Bastian fully recognised the importance of a due consideration of the relationship of this pathological condition to the indurations of lung tissue met with in phthisis. His attention had been particularly directed to this question because some pathologists refused to recognise cirrhosis of the lung as a distinct disease on the ground that all the so-called cases were instances of tubercular phthisis advancing to a cure. He knew how frequently fibroid induration of the cirrhotic kind was associated with tubercle, but he felt convinced that in certain cases pure cirrhosis might exist in individuals who were in no way tuberculous. In fact, his observations confirmed those of Dr. Sutton to the effect that persons suffering from this disease often had originally possessed large well-formed chests, and a physique the very reverse of that usually looked upon as phthisical. Of the 30 cases analysed by Dr. Bastian, in only four was there any evidence of the existence of tubercle in one or other lung, and then it occurred in quantity altogether insignificant, so as to make its presence rather an accident than an essential.

OBITUARY.

HENRY OBRÉ, F.R.C.S.

We have to record the decease, on Tuesday, November 12, at 3.30 A.M., of Mr. Henry Obré, residing at No. 1, Melcombe-place, Dorset-square. Mr. Obré had, for many years, a large and very lucrative general practice in Marylebone, and his loss will be greatly deplored by numerous friends and patients. Some years ago, he diagnosed and operated on a case of obturator hernia, a wax model of which is contained in the museum of Middlesex Hospital. He also largely devoted himself to the relief, by treatment and Surgical operation, of diseases of the eyes, in which he took a special interest.

THE LATE DR. GEORGE SUTHERLAND.

In the demise of Dr. Sutherland, which occurred on Friday, after a lengthened illness, the Medical Profession in Aberdeen has lost another of its members, in the very prime of life. Dr. Sutherland was a first-rate scholar, and carried off high honours in his Arts and Medical classes. He had just graduated, when, after a severe competition, he was appointed House-Surgeon to the Aberdeen Infirmary, which responsible office he held for years with credit to himself and much benefit to that institution. Very soon after, commencing to exercise his profession in town, he formed a select and very respectable practice; but he had been so long in delicate health, that he could only partially avail himself of his many and extensive Professional attainments. His death will be heard of with much regret by his numerous friends at home, and by none more so, than by those of his Profession, attached to the public services in distant lands, whom, when students here, he was ready from his long and ripe experience to guide and instruct by his assistance and advice. Dr. Sutherland was an expert and accomplished Surgeon, and, had health favoured him, would have risen high in that branch of his Profession. He was for some time Medical Officer to St. Nicholas Poor-house, to one of its districts, and one of the Physicians to the Aberdeen General Dispensary.—*Aberdeen Free Press.*

NEW BOOKS, WITH SHORT CRITIQUES.

The Trinity College, Dublin, Grace, before and after Meat. Arranged for two tenors and two basses by the Rev. J. P. Mahaffy, M.A., and R. P. Stewart, Mus. Doc.

"The great Roman orator (in his speech for L. Murœna) and the judicious Hooker, that great pillar of the English church (in the fifth book of his "Laws of Ecclesiastical Polity"), are at one in affirming the propriety and use—nay, the duty—of magnificent hospitality on due occasion. In reply to Cato, who denied that good feeling ought to be conciliated by conviviality, Cicero declared that all the customs, life, manners, and civil constitution of the Romans refuted such a miserable doctrine, and showed that neither the Lacedæmonians, with their boasted contempt of luxury, nor the Cretans, who would scarcely allow themselves to sit down to their meals, were a match for the Romans, who gave to work and to feasting respectively their due share of time. "Odit," he says, "populus Romanus privatam luxuriam; publicam magnificentiam diligit; distinguit rationem officiorum ac temporum; vicissitudinem laboris ac voluptatis." How well these principles were acted on by the learned and hospitable authorities of Trinity College, Dublin, how well the scientific labours of the morning were supported by the feasts of the evening, those who had the privilege of being present during the meeting of the British Medical Association can testify. Nor is it one of the least graceful acts of the College that they have sent to their guests, as a memorial of the occasion, a copy of the Grace, with its music, as it was sung before and after the dinner at which the Association was entertained. Little as prayer and music belong to the functions of a Medical journal, it still would be discourteous not to acknowledge, with its full meed of praise, this particular composition, the first public recitation of which took place at a great Medical festival, and the receipt of which must bring grateful recollections to so many Medical guests. As for the words of the Grace before Meat, they can be traced, through the Breviary, to the earliest Christian times, and far higher up. Those of the Grace after Meat commemorate the founders and benefactors of the College. Both recall to us Wordsworth's lines—

> "The spirit of Lund is pleased in Heaven's pure clime,
> And Hooker's voice the spectacle approves."

The music to the former consists of elegant harmonies on a *canto fermo* in monotone; the latter grace, which, being longer, affords more scope to the musician, begins with a well known ecclesiastical melody, followed by a short motett. The Medical Profession in England is gratified by this courteous souvenir on the part of the Dublin College.

Lectures on the Progress of Anatomy and Surgery during the Pre-ent Century. By Sir William Fergusson, Bart., F.R.S., Sergeant-Surgeon to H.M. the Queen, etc. London: John Churchill and Sons. Pp. 302.

*** The eminently successful lectures of our great operative Surgeon are now published in a separate form. Many will be delighted to have this opportunity of renewing their acquaintance with his lucid and instructive descriptions of the recent improvements in Surgery relating to cleft palate, harelip, lithotomy, lithotrity, excision of the knee, and operations on the jaws.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College at a meeting of the Court of Examiners on the 14th inst., viz.:

Messrs. Walter Greene, Southampton-buildings; Benjamin Neale Dalton, L.R.C.P. Lond., South Lambeth; Robert John Shepherd, Plymouth, and George William Smith, Castle Donnington, students of Guy's Hospital; Charles Henry Stanley Stevens, Kensington, Thomas Knight Salter, Mount-street, Grosvenor-square, Richard Wilson, Chelsea, and Charles Lake Parr, Cambridge street, of St. George's Hospital; George Henry Roqué Dabbs, M.B. Aberd. and L.S.A., Newport Isle of Wight; Richard Howell Stevens, M.B. Edin., Eton College; William Alsept Richards, L.R.C.P. Lond., Redruth, Cornwall, and Osmau Vincent, Camden-square, of King's College; James Bradley, Pensnett, near Dudley, of the Birmingham School; John Wesley Allin, Islington, of the Charing-cross Hospital; James Tennant, L.S.A., Sleaford, Lincolnshire, of the Edinburgh School; Albert Ryan, Dublin, of the Dublin School, and Robert George Fendick, Bristol, of the Bristol School.

It is stated that eleven candidates out of the sixty-eight who presented themselves for the Pass Examination failed to reach the required standard, and were consequently referred to their Hospital studies for the full period of six months.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 14, 1867:—

Thomas Edward Bowkett, East India-road, Poplar; Joseph Good, Hemel Hempstead, Herts; Christopher Henry Dowson, 5, Unity-street, Bristol; James Gurney Carruthers, Northampton; John Symons, Amhurst-road, Hackney.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CORDNER, L. W., M.D., has been appointed House-Surgeon to the West Ham and South Essex Dispensary.

HEWSLEY, Dr. P. J., has been appointed Physician-in-Ordinary to the Western General Dispensary, Marylebone-road.

HERBERT, J. T., L.R.C.P. Edin., has been appointed Resident Surgeon to the Dover Hospital.

PHILLIPS, J., M.B., has been appointed Physician to the Royal Infirmary for Children and Women, Waterloo-road.

REID, L. H., L.R.C.P., has been appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary, Ryde.

BIRTH.

FERNANDEZ.—On October 29, at Quebec, the wife of F. Fernandez, Esq., Army Medical Staff, of a daughter.

MARRIAGES.

JESSOP—BLACKBURN.—On November 12, at the parish church, Leeds, T. R. Jessop, M.R.C.S., Leeds, to Isabella Harvey, youngest daughter of the late John Blackburn, Esq., of Moor Alleston, and coroner for the borough of Leeds. No cards.

THOMPSON—FINNEY.—On November 12, at St. John's Church, Gateshead Fell, R. F. Thompson, M.D., of Jarrow-on-Tyne, to Annie, eldest daughter of S. Finney, Esq., Sheriff hill-hall, county Durham. No cards.

DEATHS.

NELSON, W., M.R.C.S.E., of Woodville, Douglas, Isle of Man, on November 8, aged 77.

OBRE, H., F.R.C.S., at No. 1, Melcombe-place, Dorset-square, on November 12.

RIMMER, J., M.R.C.S.E., Royal Artillery, at Dinapore, East Indies, on September 27.

SMYTHE, H., L.R.C.P. Edin., of King's Lynn, on November 4, aged 56.

STEWART, H., Surgeon (late of 1A, Weymouth-street), at 32, Loundounvillas, Shepherd's Bush, on November 17, aged 77.

SUTHERLAND, G., M.A., M.R.C.P. and L.R.C.S. Edin., at 130, Union-street, Aberdeen, on November 8, in his 49th year.

YOUNG, W., M.D., at 60, George square, Edinburgh, on November 17.

VACANCIES.

KING'S COLLEGE.—Pathological Registrar of the Hospital and Curator of the Anatomical Museum.

SUSSEX COUNTY HOSPITAL.—House-Surgeon.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Resident House-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

St. Luke, Chelsea, Parish.—Mr. T. Dickinson has resigned the North-east District; population 14,489; salary £50 per annum.

Uxbridge Union.—Mr. Stilwell has resigned the Hillingdon District; area, 6390; population 7060; salary £30 per annum. Also the Uxbridge District; area 1860; population 3607; salary £35 per annum.

APPOINTMENTS.

Burton-upon-Trent Union.—Edward N. Needham, M.R.C.S. Ire., L.K. and Q. Coll. Phys. Ire., to the Lullington District.

Godstone Union.—Ebenezer Diver, M.R.C.S.E., M.D. St. And., to the Northern District.

Merthyr Tydfil Union.—Thomas J. Webstor, M.R.C.S.E., L.S.A., to the Penderyn District.

Ormskirk Union.—John D. Porter, M.D. Edin., M.R.C.S. Edin., to the Rufford District.

Ross Union.—George Rootes, M.R.C.S.E., L.R.C.P. Lond., to the Sollershope District.

Sedgefield Union.—William L. Piercey, M.R.C.S.E., L.A.H. Dub., to the Trimdon District; George R. Sheraton, L.R.C.P. Edin., M.R.C.S.E., to the Sedgefield District and the Workhouse.

JOHN PROPERT, ESQ.—The will of the founder of the Medical Benevolent College has just been proved in London under £30,000.

THE will of Dr. James Black, late of Bolton-le-Moors, Lancashire, has been proved under £10,000 in personalty and effects. An obituary notice of this gentleman appeared in our issue of May 18.

WE are requested to state that Mr. J. J. Merriman and Mr. J. Baxter Langley have resigned all connexion with the Reform League.

THE CHANCELLORSHIP OF THE EDINBURGH UNIVERSITY.—The statement recently made in the papers that, in the event of the retirement of Lord Brougham, it is intended to offer the chancellorship to the Duke of Edinburgh, has been distinctly denied by the *Scotsman*.

SCIENCE *v.* RELIGION.—The subject of the lecture which was to have been delivered at Sion College last Thursday, by Professor Huxley, was "the difference supposed to exist between scientific and clerical opinion."

A ZOOLOGIST FOR THE ABYSSINIAN EXPEDITION.—At the recent request of the Zoological Society, the Government have determined to add a zoologist to the staff of scientific explorers which is to accompany the expedition. The gentleman selected has not, we believe, been yet officially named, but we are informed that he is an eminently practical zoologist, and one whose experience as a collector fully entitles him to the post which is to be entrusted to him.

MEDICAL TEACHERS' ASSOCIATION.—The meeting on Monday night was well attended, and was presided over successively by Sir W. Fergusson and Dr. Jenner. Two resolutions only were passed, one to the effect that students' registration should be conducted at one instead of three offices, and another which resulted in the formation of a committee to report upon the best method of registering the attendance of students on courses of lectures. The first was moved by Mr. Ernest Hart, and supported by Professor Bentley, and the second was moved by Mr. Campbell De Morgan.

DEMONIACAL POSSESSION IN ABYSSINIA.—In the Rev. H. A. Sterne's book on Abyssinia, we read that possession by evil spirits is supposed to be the cause of some curious forms of nervous affections. One, known as "Boudas," is not confined to any particular class; it chiefly prevails about August, during the periodical thunderstorms, and takes the form at first of hysterical mania, followed by a state of cataleptic rigidity and insensibility lasting for some hours. The insensibility is sometimes so complete that strong spirits of ammonia may be held to the nose without producing any effect. The other affection, called "Zar," only appears among young women, and is simply hysteria. Over this form of demoniacal possession conjurors "are in vain," but the Medical Faculty have discovered that the sharp application of a whip is more potent than drugs, or the necromancer's spell!

THE PRESIDENTS OF THE ROYAL SOCIETY.—The late Earl of Rosse, as President of the Royal Society, was complained of as being too strict in his adherence to fixed and precise rules for the admission of candidates to the dignity of F.R.S., though it cannot be denied that the honour has been made somewhat too cheap in previous years. Thus it has been said, and with some truth, that Sir Joseph Banks was too good-natured, Sir Humphry Davy too inattentive, Mr. Davis-Gilbert too idle, the Duke of Sussex too stupid, and the Marquis of Northampton too indulgent. Lord Rosse's two

successors in the presidential chair, the late Lord Wrottesley and Sir Benjamin Brodie, seem to have been more fortunate in hitting the men, as they gave general satisfaction by their businesslike habits and perfect courtesy.—*Guardian.*

THE Committee of the Great Northern Hospital, N., have just been presented with a donation of £50 from the Worshipful Company of Grocers, and £31 10s. from the Worshipful Company of Mercers, in aid of the new Hospital premises, for which £6000 have been paid.

FELLOWSHIP EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The plan now adopted by the Court of Examiners for testing the knowledge of candidates for the distinction of Fellow of the Royal College of Surgeons, will no doubt be read with some interest by the members of the Profession, especially those who contemplate undergoing the ordeal, and who will he able to judge from the following whether the examination, if more discursive, is a less severe test than that heretofore adopted. On Monday the candidates, both senior and junior, assembled in the Theatre of the College, and from 12 until 4 o'clock underwent a written examination in Anatomy and Physiology. The questions submitted were six in number, and answers to less than four were not received. The following constituted this portion of the examination :—"1. Mention the names of the muscles supplied respectively by the circumflex, median, radio-spiral, and ulnar nerves. 2. Carbon and Nitrogen.—State the estimated amount eliminated daily from the system of an adult in easy occupation ; and how they are eliminated. State also the estimated weight of animal food alone (butcher's meat) which would be necessary to yield the quantity of carbon and nitrogen eliminated ; and the estimated weight of vegetable food alone (wheaten bread) which would be necessary for the same purpose. 3. The gluteus maximus muscle being removed, mention all the parts exposed to view, and state the position in which each part lies. 4. What nervous ganglia are found in direct association with the first, second, and third divisions of the fifth cerebral nerve ? Describe the situation of each of these ganglia, and state whence each derives its motor, sensitive, and sympathetic filaments, and the distribution of the nerves which proceed from each ganglion. 5. The Cerebellum.—Describe (*a*) its relative development in man and other vertebrate animals ; and (*b*) its functious, including the facts, ascertained by experiment or otherwise, on which the views respecting those functions are founded. 6. Describe the change of position of the testicle in ita course from the abdomen to the scrotum ; and the coverings which it successively acquires during the change." On Tuesday the Prosectors engaged by the College prepared the required dissections, and on these parts, and dried and wet preparations, the candidates were examined on the following day for half an hour at two tables by different examiners. At four o'clock the reports of sections were given to the President, when the undermentioned Members of the College were reported to have passed this portion of the examination to the satisfaction of the Court, and, as will be subsequently seen, some of them underwent also the pass examination at the close of the week ; the names of those gentlemen who passed the final examination cannot be published until after having been submitted to the Council. The following gentlemen passed the primary examination, viz. :—Messrs. Clarence Cooper, Her Majesty's Indian Army, diploma of Membership dated December 17, 1852 ; Samual Prall, West Malling, April 20, 1857 ; and John Daniel Hill, Guildford-street, July 18, 1859, students of Guy's Hospital. Christopher Bulteel, Down-street, Piccadilly, March 31, 1854 ; Francis Woodhouse Braine, Hertford-street, Mayfair, March 31, 1858 ; and George Cowell, Belgrave-road, S.W., July 9, 1858, of St. George's Hospital. James Fitzjames West, Broad-street, Birmingham, October 13, 1854, and Clement Dukes, Victoria-park, April 23, 1867, of St. Thomas's Hospital. Thomas Moore, Brighton, December 6, 1859, of St. Bartholomew's Hospital ; James Keith Jeanncret Grosjean, April 17, 1860, Kensington, of St. Mary's Hospital. Miles Astman Wood, Ledbury, Herefordshire, January 25, 1865, of King's College ; and Christopher William Calthrop, Manchester, April 25, 1867, of the Charing-cross and King's College Hospitals. Those candidates who had given satisfaction received cards to attend on Thursday to undergo their written examination in Surgery and Pathology. The following were the questions submitted on thia occasion—viz. :—"1. Fatty Degeneration of Muscular Fibre.—Describe its appearance and anatomical characters, including the results of observation with the microscope. Mention any circumstances believed to predispose to that morbid condition. 2. Explain the methods of reparation of a long bone in cases of simple fracture ; and the same in the case of muscle, tendon, and nerve transversely divided. 3. Epithelioma (Epithelial Cancer) in the Skin.—Describe (*a*) its appearance and characters ; (*b*) the structure, including the result of microscopical observation ; (*c*) the progress locally ; (*d*) the manner in which the disease becomes injurious or destructive to life ; (*e*) the diagnosis from other morbid growths. Illustrate your statements by reference to any casea which have come under your own observation. 4. In compound dislocations of the ankle-joint, what local, general, and personal conditions determine the necessity for amputation of the leg ? 5. Describe the various forms of obstruction of the lacrymal passagea, and the methods of treatment. 6. State what structures may be injured by a blow upon the perineum. Deacribe the symptoms, and the immediate and subsequent treatment you would adopt in different caaes." On Friday the examinations were held on cases in our metropolitan Hospitals, which were visited in sections by the Court of Examiners ; and this day (Saturday) the candidates were submitted to *viva voce* examinations in Surgery, etc., and performed operations on two subjects provided for that purpose.

DUBLIN OBSTETRICAL SOCIETY.—The thirtieth annual session of the above Society was inaugurated on Saturday evening, November 16, in the Pillar-room of the Rotundo, adjoining the Lying-in Hospital, when the opening address was delivered by the President, Dr. Sawyer. Among those present on the occasion were the President of the King and Queen's College of Physicians, Dr. Churchill ; the President of the Royal College of Surgeons, Dr. Robert Adams ; the Right Hon. the Lord Mayor ; the Lord Mayor Elect, Dr. Carroll ; Sir Dominic Corrigan, Bart., etc. Among the topics touched upon by the President was the incorporation by Royal Charter of the Coombe Lying-in Hospital, whereby the Masters of the Hospital will now be empowered, like the Master and Assistant-Physicians of the Rotundo Hospital, to examine pupils who have attended the practice of the house for six months, and to issue diplomas to those adequately qualified. The President also announced the donation, by Sir Benjamin Lee Guinness, Bart., M.P., of the sum of £2000 to the same Hospital. Dublin will thus henceforward possess two chartered special Schools of Midwifery, which will not strive against one another, observed the President, in a spirit of jealousy, but will co-operate and emulate each other in the noble task of relieving the poor and suffering sisterhood of our city.

THE BEARD A CENTURY AGO.—"I remember," says Smollet in his Letters from Italy, "a student in the Temple who, after a long and learned investigation of the τὸ καλόν or the beautiful, had resolution enough to let his beard grow, and wore it in all public places, until his heir-at-law applied for a commission of lunacy against him, when he submitted to the razor rather than run any risk of being found *non compos.*"

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

It would be impossible, consistently with fairness, to publish a letter which we have received from Dr. E. B. Sinclair, unless we were to reprint Mr. Phelan's paper in the 85th number of the *Dublin Quarterly*, which began the controversy, and the whole of Dr. Sinclair's pamphlet in reply to it, together with any rejoinder which Mr. Phelan might think fit hereafter to send to us. We know nothing of Mr. Phelan's original paper, and whatever its merits or demerits, they do not concern us, and are quite beside the only part of the controversy that does interest us. We neither attack nor defend it. But as for Dr. Sinclair's pamphlet, which was sent us for review, with a prominent notice that it was refused admission into the *Dublin Quarterly*, we repeat what we said, that, whilst admiring the force of its arguments, there is a sneering tone about it, and "insinuations," or (if Dr. Sinclair prefers the word) direct charges, against Mr. Phelan of a dishonest object—viz., "to place the Coombe Hospital in a favourable light before the public, to the disadvantage of the Rotundo Hospital." Such a tone and such charges are out of place in scientific controversy. Dr. Sinclair will do the cause of charity the greatest possible service, if he continue his very able line of argument so as to clear up the much debated question of the mortality of Lying-in Hospitals. This is a question which concerns the whole civilised world. But surely Dr. Sinclair, for the sake of his own high Professional position, of the reputation of his country, and of literary courtesy, should not allow this great controversy to merge in a personal dispute with Mr. Phelan, nor yet in a squabble between the supporters of two similar institutions, which ought to be rivals only in the art of doing good.

H. Rayner.—Consult Pole's Anatomical Instructor, and also Tulke and Henfrey's work on the same subject. The former is the best for your purpose.

A Provincial Candidate.—The following comprise the Court of Examiners of the Royal College of Surgeons:—*President:* Mr. Hilton. *Vice-Presidents:* Messrs. Quain and Cock, and Messrs. South, Luke, Skey, Wormald, Partridge, Solly, and Sir William Fergusson. The examinations In Medicine will come into operation next October.

A Candidate.—The result of the recent examination for the Fellowship of the Royal College of Surgeons cannot be published until confirmed by the Council.

M.D., Scarborough.—Emma, Queen of the Sandwich Islands, is daughter of Mr. Thomas Charles Ryde Rooke, a Member of the Royal College of Surgeons of England, of which institution he was admitted a Member on January 16, 1827; and in the last published Calendar he appears as still residing on the Sandwich Islands. His daughter married Kamehameha IV. on June 19, 1856.

Dr. Jones, L.S.A.—In the case Rex *v.* Hatto, the defendant pleaded guilty to an indictment for imposiug on the examiners of the Apothecaries' Company by a forged certificate of having served an apprenticeship of five years to an apothecary. An affidavit, in mitigation, stated that he had actually served three years and three-quarters; and prisoner said that his master would have given him a certificate had he asked it. Then, said Lord Tenterden, he would have subjected himself to a prosecution. He sentenced Hatto to imprisonment for six months.

IODINE PAINT PREPARED WITH COLLODION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the local treatment of strumous swellings and syphilitic nodes, it occurred to me that with a solution of iodine in collodion the parts could be kept more continuously under the influence of that agent than with the ordinary alcoholic preparations, the evaporation of the iodine being to a great extent obviated by the collodion film. Such an application I have found exceedingly effective as a discutient, the strength not exceeding thirty grains to the ounce—otherwise it would act as a vesicant—the object being merely to keep the skin under the prolonged influence of the agent for the purpose of promoting the absorption of the subcutaneous deposits. I am, &c.

Aberdeen, November 12. W. REID.

COMMUNICATIONS have been received from—
Mr. J. RUSSELL; Mr. SARJEANT; Dr. MERCER; Dr. J. B. BOND; Mr. G. REID; Mr. LUCAS; Mr. POPPS; Dr. FOTHERBY; Mr. RAYNER; Mr. TAIT; Mr. FELDMANN; Mr. YEO; Dr. WHITMORE; Dr. LEARED; Dr. SINCLAIR; Mr. MASON; Mr. ROOKER; Mr. GATIS; OBSTETRICIAN; Dr. THORBURN; Mr. MOULDING; Messrs. WRIGHT and NASH; Dr. FRASER; Mr. COOPER; Mr. CRANE.

BOOKS RECEIVED—
Pathological Society's Transactions, vol. xviii.—Porter's Surgical Reports—Eve on Hip-joint Operations—Russell on Stimulation in Typhus—Fergusson's Lectures on the Progress of Anatomy and Surgery—James on External Inflammations—Potts on Scholarships and Exhibitions—Journal of the Scottish Meteorological Society—Kirkes's Physiology, sixth edition—The Dublin Quarterly Journal of Medical Science, November—Report of the Board of Works for Fulham District—Catalogue of the United States Army Medical Museum.

NEWSPAPERS RECEIVED—
Leader — West Surrey Times — Courier—Medical Press and Circular—Colonial Mail.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 16, 1867.

BIRTHS.

Births of Boys, 1075; Girls, 1004; Total, 2079.
Average of 10 corresponding weeks, 1857-66, 1835·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	754	703	1457
Average of the ten years 1857-66	724·0	690·4	1414·4
Average corrected to increased population..	..	..	1555
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	4	11	3	..	7	4	4	..
North ..	618,210	5	16	9	3	6	11	5	1
Central	378,058	1	10	6	..	5	4	1	..
East ..	571,158	4	9	2	1	7	9	1	..
South ..	773,175	3	11	17	4	7	8	6	1
Total ..	2,803,989	17	57	37	8	32	36	17	2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·835 in.
Mean temperature	45·0
Highest point of thermometer	59·8
Lowest point of thermometer	33·3
Mean dew-point temperature	42·0
General direction of wind	N.E. & S.E.
Whole amount of rain in the week	0·10

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 16, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Nov. 16.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Nov. 16.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2076	1421	1457	59·8	33·3	45·0	0·10	10
Bristol (City) . .	165572	35·3	100	74	175	58·4	29·0	43·0	1·31	132
Birmingham (Boro')	343948	43·9	240	167	155	55·0	28·5	41·3	0·80	81
Liverpool (Borough)	492439	96·4	382	285	297	49·5	35·8	41·5	0·49	49
Manchester (City) .	362323	80·9	251	205	‡218	53·8	30·0	40·1	0·57	58
Salford (Borough) .	115013	22·2	88	58	60	52·7	31·0	40·4	0·50	51
Sheffield (Borough).	225199	9·9	166	119	120	53·0	27·5	39·1	0·62	63
Leeds (Borough) .	232428	10·8	218	118	109	50·0	25·5	40·5	0·71	72
Hull (Borough) .	106740	30·0	81	49	58	56·0	33·0	41·8	0·74	75
Newcastel-on-Tyne, do.	124960	23·4	65	66	67	48·0	35·0	42·7	0·39	39
Edinburgh (City) .	176081	39·8	132	85	82	47·7	33·0	42·2	0·20	20
Glasgow (City) .	440979	87·1	293	257	202	52·7	35·0	43·6	0·53	54
Dublin (City and some suburbs) .	319210	32·8	145	‡157	139	55·0	32·7	45·0	0·19	19
Total of 13 large Towns . . .	6187764	34·8	4240	3061	3039	59·8	25·5	42·0	0·55	56
	(1863)				Week ending Nov. 9.	Week ending Nov. 9.				
Vienna (City) .	560000	..	.	..	232	..	..	§39·0	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·835 in. The barometrical reading decreased from the high reading of 30·42 in. at the beginning of the week to 29·45 in. on Thursday, November 14.

The general direction of the wind was N.E. and S.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 41·9°.

APPOINTMENTS FOR THE WEEK.

November 23. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

25. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Sir John Lubbock, Bart., "On the Origin of Civilisation." Major R. Stuart, C.B., "On the Vlakhs of Mount Pindus."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Fuller, "On Excess of Urea in the Urine in the Diagnosis of Dyspepsia and Nervousness." Mr. T. Bryant, "Case of Colotomy for Vesico-Intestinal Fistula."

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

HUNTERIAN SOCIETY, 8 p.m. Mr. Maunder, "On Ligature of a Main Artery to Arrest Acute Traumatic Inflammation in Important Structures."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Leone Levi, Esq., Professor of Commercial Law in King's College, London, "On the Diplomatic and other Conferences held recently in Paris with Reference to International Coinage, Weights, and Measures."

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

29. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

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(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

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See Pharmaceutical Journal of May 1, 1856.

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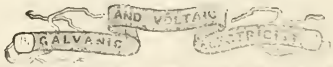

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture V.—Part II.

DYSTOCIA FROM FAULTY CONDITION OF THE SOFT PARTS: CONTRACTION OF THE CERVIX UTERI; RIGIDITY; SPASM; DEVIATION; HYPERTROPHY; CICATRIX; CLOSURE; ŒDEMA; THROMBUS; CANCER; FIBROID TUMOURS;—THE NATURAL FORCES THAT DILATE THE CERVIX;—THE ARTIFICIAL DILATING AGENTS: VAGINAL IRRIGATION; WATER-PRESSURE; INCISIONS; RESISTANCE OFFERED BY THE VAGINA, VULVA, AND PERINÆUM.

Dystocia from faulty condition of the soft parts of the parturient canal is only incidentally and occasionally related to the history of the forceps. This incidental relation, however, makes it convenient to discuss the question in this place.

The cervix uteri, the vagina, or the vulva, including the perinæum, may refuse to yield a passage to the child, and to permit the application of the forceps. The conditions which lead to this result are various. First, as to the cervix uteri, including the os externum uteri. The following causes of obstruction may be observed:—1. Spastic annular contraction. 2. Thickening from œdema. 3. The cervix may have an abnormal direction and position. The cervix is not in the line of the axis of extrusion. Perhaps it is bent down at a more or less acute angle upon the body. A more frequent condition is the pointing of the os uteri backwards towards the promontory, and very high up, so that it is difficult to reach, perhaps impossible, without passing the hand into the vagina. In such a case the head bears unduly upon the anterior segment of the lower part of the uterus. This is often the result of slight narrowing of the pelvic brim, which throws the head upon the anterior wall of the pelvis. This may persist so long that the tissues become worn and their texture softened, so that when the head is driven down into the pelvis the damaged cervix rends. 4. From contraction of the brim, or from the presentation of some part of the child—as the arm, face, or feet—not adapted to descend early and fairly upon the cervix, there is insufficient dilatation. 5. The cervix may be organically diseased. The most marked causes of this kind are hypertrophy, occlusion from false membrane, fibroid tumour, or cancer. To this may be added abnormal formation. 6. The cervix may be closed by cicatricial atresia.

It is further customary to refer to cases in which no os uteri can be found.

There is another condition, which, although not in itself abnormal, will be properly considered in connexion with the above. The os and cervix may be met with closed or only imperfectly dilated under circumstances which render speedy delivery eminently desirable. In such a case the cervix must be treated as one that is rigid or otherwise diseased. It obstructs labour; and just as in the cases where the closure of the os is the primary cause of obstruction, it must be opened.

The first of the conditions enumerated includes what is commonly understood as *rigidity*. It is really much more rare than is supposed. Most frequently when the os will not dilate, it is because the presenting part of the child cannot come down upon it. But if the membranes are ruptured prematurely, and the presenting part comes to press upon the os before this is at all dilated, then it often acts as a source of irritation, and produces this spastic annular contraction.

Before discussing the second cause of rigidity, it will be useful to examine *what are the forces that dilate the cervix*.

This study will throw light on the causes and pathology of rigidity, and furnish useful indications in treatment. By some it is held that the opening of the cervix is the direct result of the active contractions of the longitudinal uterine muscles, which, pulling the os towards the fundus, thus draw it open. I very much doubt if more than a very inconsiderable opening is effected in this manner.

It is a matter of observation that the os uteri does not expand in any marked degree until either the bag of membranes or the child's head comes to bear upon it These distend the cervix and os as a direct mechanical force; they are, in fact, wedges, themselves inert, but propelled by the contractions of the uterus and the abdominal muscles. Under this distending force, the circular fibres of the cervix yield, just as the sphincter ani or the sphincter vesicæ yields under the pressure from above. The yielding of the cervix uteri is indeed a question of the preponderance of the *vis à tergo* exercised by the body of the uterus and the expiratory muscles over the resistance offered by the cervix. Sometimes the normal harmony between this preponderance and resistance is disturbed; the active force or the passive resistance is in excess; or the resistance may become active, and the force may be reduced to inefficiency. There is, in fact, a translation or metastasis of the nervous energy from the body of the uterus to the neck. This disturbance most frequently arises from an inversion in time, in the order of succession of the parturient phenomena. Thus, if the liquor amnii escape prematurely, the presenting part of the child will bear too early upon the cervix, and excite it to irregular action. This, by diverting and disordering the nervous supply to the body of the uterus, disables this part of the organ; and concurrently the cervix itself, becoming congested and thickened by undue pressure, irritation, and action, loses its natural capacity for dilatation.

A very instructive illustration of the theory that the dilatation of the cervix uteri is essentially dependent upon the eccentric pressure exerted by the liquor amnii and fœtus driven into it is found in the equivalent action of my hydrostatic cervical dilator. This instrument is inserted within the cervix in a collapsed state, and then gradually distended with water as seen in Fig. 33. It very nearly represents the normal action of the liquor amnii distending the sac of the amnion. Under this pressure, the cervix yields smoothly and gradually, just as in natural labour; the speed, however, being very much within the discretion of the operator. In this instrument we possess a power in midwifery, at once safe and efficient, that brings the cervix, and therefore the course of labour, completely within the control of skill.

How shall we restore the due relation between the expulsive and the resisting forces? How, in other words, shall we overcome the rigidity of the cervix uteri? This may be done in one of two principal ways. We may increase the power of the body of the uterus, so as to restore its preponderance over the cervix, or we may apply direct means to the cervix to dilate it, doing ourselves the work that the uterus cannot do. Great judgment is necessary in selecting between these two courses. Before deciding in favour of the first, we must be satisfied that the resistance opposed by the cervix is of such kind and degree that it may be overcome by moderate force. We must also be satisfied that there is potential energy enough in the system and in the uterus to respond to the stimulus, to the whip we propose to administer. To give ergot, for example, when the frame and the uterus are exhausted, is to equal the folly of the heavy rider who drives his spurs into his jaded horse when he ought to dismount and lead him.

It will almost always be proper, as the first step—that is, before seeking to rouse the uterus to increased action—to secure a more favourable condition of the cervix. How is this to be done? Let us take the case of spastic rigidity, the cause of which we have just glanced at. The first indication is to soothe, to subdue nervous irritability. Belladonna in the form of extract has been smeared upon the part. One sees the action of this drug in expanding the pupil. I have never felt it on the os uteri. The analogy is probably defective in theory. I believe it is not in the least degree to be relied upon in practice. It is at best an expedient for passing time.

Chloroform is often of signal service. It acts by annulling the sense of pain and the fear of pain, and by restoring the equilibrium of the nervous system by removing disturbing causes that divert the nerve-force from its appropriate distribution; the sphincteric spasm relaxes, the body of the uterus contracts as it ought to do, and the labour proceeds.

A remedy sometimes of equal value to chloroform is *opium*. Thirty drops of the tincture or twenty of the sedative liquor combined with thirty drops of compound sulphuric ether will assuage pain, procure rest, and restore the harmony of the distribution of nerve-force; and if not in itself sufficient, it will aid in the carrying out of other measures.

Tartar emetic in small doses to provoke nausea has been recommended. In some cases I have proved its use, but I am not now disposed to resort to it, at the cost of postponing means at once more prompt and less distressing in their action.

Bleeding has been much extolled. In certain cases, as of

convulsions, apoplexy, or such states of system as threaten these catastrophes, this proceeding may be adopted. But, apart from a decided special indication of this kind, it is not wise to bleed a woman in labour. Nor can bleeding be depended upon, as may be frequently seen in cases of placenta prævia, where even flooding *ad deliquium* will fail to relax the rigid or spastic cervix.

Warm baths have been much praised, and no doubt have a certain degree of power in inducing relaxation of tissue. But a warm bath is rarely at hand, and, if it were, the inconvenience of putting a woman in labour into it must often be insurmountable.

The most valuable of all preparatory measures is the *irrigation of the cervix and vagina* with a stream of tepid water. We know that this is even efficacious in the induction of labour. And it is obviously useful to apply our knowledge of the agents that are effective in the solution of the major problem to the minor one, how to facilitate, to accelerate labour that has begun. In many cases this irrigation will be enough. Presently the cervix softens and yields, spasm is subdued, and abnormal action of the cervix is turned into normal activity in the body of the uterus. The mode of proceeding is simple. Introduce the vaginal tube connected with Higginson's syringe into the vagina, guided by the fingers of the left hand to the os uteri—*not into the os uteri*, there is danger in that—so that the stream of water shall play upon the cervix and fundus of the vagina. This may be continued for ten or fifteen minutes at a time, and repeated after an equal interval.

When the cervix has become disposed to yield it may not yield. The dilating force has still to be found. You may now, perhaps, give ergot. But when you have given ergot you are likely to be in the position of Frankenstein. You have evoked a power which you cannot control. Ergotism, like strychnism, will run its course. If it acts too long or too intensely, you cannot help it. The ergotic contraction of the uterus, when characteristically developed, resembles tetanus. Then woe to the mother if the cervix does not yield, if the pelvis is narrowed, if, in short, any obstacle should delay the passage of the child. And woe to the child itself if it be not quickly born. I very much prefer to use weapons that obey me, that will do as much, or even less, than I wish. I fear to use weapons that will do more.

The cervix may be dilated by the hand. Two or three fingers are insinuated within the os one after another, so as to form a conical wedge. This wedge is gently and gradually pushed further into the cervix, and, widening as it goes, the cervix gives way. This wedge has the advantage of being a sentient force. It tells you what it is doing. But what it will tell you is sometimes this: it is that the fingers, with their hard joints, form a rather painful and irritating wedge. As it proceeds it is apt to renew the spasmodic contractions you have taken such pains to allay. If the head is pressing upon the cervix, you may, as has been already mentioned, help the dilatation by hooking down the anterior lip with one or two fingers, holding the os open as it were to allow the head to engage in it. But this application is limited; and, I think, what is called manual dilatation of the spasmodic cervix should be abandoned, except in the case of spasmodic contraction after the expulsion of the child—as, for example, when the placenta is retained, or clots are filling and irritating the uterus. In such a case the steady onward pressure of the hand-wedge will in a few minutes wear out the spasm and effect a passage enabling you to clear out the cavity.

Water pressure is the most natural, the most safe, and the most effective. An os uteri that will admit one finger will admit No. 2 dilator in the collapsed state. The introduction is effected in this way: Insert the point of the uterine sound, of a male catheter, or any convenient stem, into the little pouch at the end of the bag; roll the bag round the stem, anoint it with lard or soap, then pass it into the cervix guided by the forefinger of the left hand which is kept on the os uteri. When the bag is passed so far that *the narrow or middle part is fairly embraced by the cervical ring*, withdraw the sound, keeping the guiding finger on the os to insure the preservation of the bag *in situ*. Then pump in water gradually. Continue distending the bag until you feel it is tightly nipped by the os. When this is done, wait a while; close the stop-cock, and give time for the distending eccentric force to wear out the resistance of the cervix. No muscle can long resist a continuous elastic force. From time to time inject a little more water so as to maintain and improve the gain. But be careful not to distend the bag beyond its strength. There is of course a limit to the distensibility, even of india-rubber, and I have been told of cases where the bag has burst. I think this accident ought to be avoided. It has never happened to me, and I think it need not happen if the bags are well made. When you have got all the dilatation out of No. 2 that it is capable of giving, remove it and introduce No. 3, which is larger and more powerful. The dilatation No. 3 will give is commonly enough to afford room for the forceps or the hand. The time required for this amount of dilatation will range from half an hour to two hours. But not to lose time it is desirable to keep your finger on the edge of the os, so as to be sure that the bag does not slip forward into the uterus altogether, or is not driven down into the vagina by uterine action. If it slips wholly into the uterus, it may displace the head. When you have gained your end, open the stop-cock, the water is ejected in a stream, and the bag is easily withdrawn.

Fig. 33.

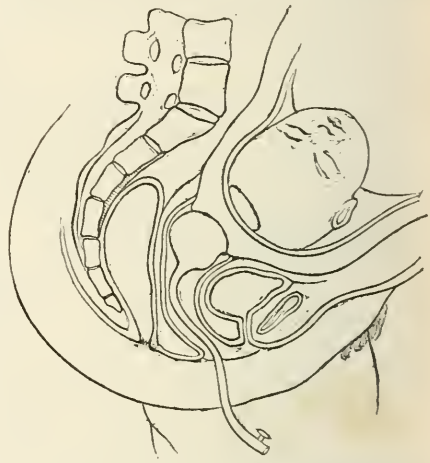


Fig. 33.—This figure shows the hydrostatic dilator distended *in situ* within the cervix uteri.

The cervical dilator serves yet another purpose. Taking the place of the liquor amnii, it does duty for the bag of membranes. It not only directly expands the cervix, but, setting up a quasi-normal reflex excitation, it evokes the regular action of the body of the uterus.

The proceeding I have described will succeed in the great majority of instances, especially where the closure of the cervix is due to spasmodic action, or where, the tissue of the cervix being normal, it cannot expand for want of an eccentric expanding force, as when the bag of membranes or the child does not bear upon it. But in certain cases where there is rigidity from alteration of tissue, as œdema, hypertrophy, cicatrix, something more is required. And that is found in the *knife*. There is nothing new in this use of the knife. It is an old resource too much neglected. Coutouly, Velpeau, Hohl, Scanzoni, indeed all the most eminent Continental Practitioners, advocate it. Judiciously employed, the knife can do no harm. It will save life when nothing else can.

You are sometimes in the presence of this alternative: exhaustion, sloughing, or rupture of the uterus, on the one hand, or the timely use of the bistoury on the other. It would be as absurd to hesitate as it would be to refuse to perform the Cæsarian section to give birth to a child which cannot be delivered by the natural passages. Indeed, it would be far more absurd, for the Cæsarian section is a most dangerous operation, whilst vaginal hysterotomy of the kind under discussion is free from danger.

There are various cases in which *vaginal hysterotomy*, or *dilatation of the cervix by incissions*, is necessary.

First, no os uteri is to found. Of course, at the time of conception there was an os uteri; it may have been subsequently closed by a false membrane or by cicatricial contraction. You will rarely fail to feel a nipple or depression where the os

ought to be. It is generally very high up and far backwards, near the promontory. Pressure with a sound or the finger will mostly break down a false membrane and offer a sufficient opening to admit a hernia-knife or the special knife described in the first lecture. This is long and straight, probe-blunted at the end, having a cutting edge of about three-quarters of an inch near the end. The forefinger of the left hand is kept on or in the os uteri as a guide. The knife is then slipped up, lying flat upon this finger, until its cutting edge is within the os. This edge is then turned up, the back supported by the guiding finger, which takes cognisance of what is to be done and of what is done; and an incision of about a quarter of an inch deep, a slight nick rather, is made in the sharp ridge of the os. The knife is then carried round to another part of the ring of the os, and another nick is make. In this way four or five nicks are effected. Each gives perhaps little; but the aggregate gain of these minute multiple incisions is considerable. I do not think it matters much at what particular points of the circumference of the os these incisions are made; perhaps the two sides are to be preferred.

Fig. 34.

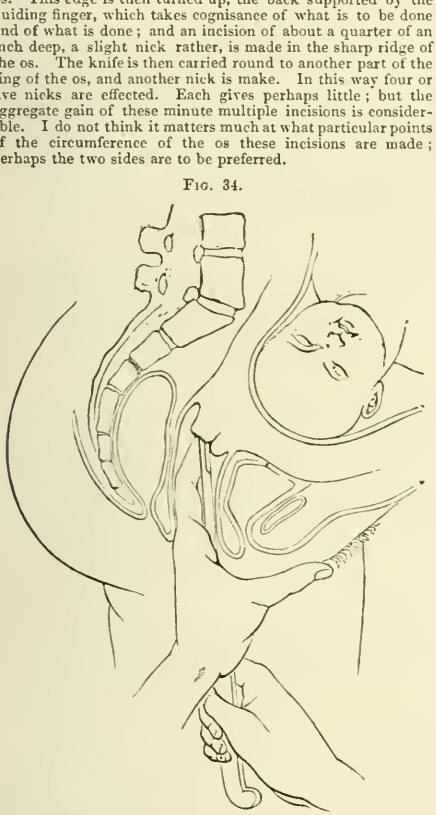


Fig. 34.—This figure shows the operation of dilating the rigid or hypertrophied cervix uteri by incision.

Before extending or repeating these incisions, it is proper to observe the effect of uterine action in continuing the dilatation. And if nothing is gained in this way, introduce the hydrostatic dilator; distend this gently, carefully testing by the finger its action. This plan of *combining the water-dilator with incisions* is especially valuable in cases of rigidity from hypertrophy of the cervix, or of atresia of the os or vagina from cicatrices.

When the forceps will pass—and it is quite possible to apply it when the os will allow three fingers to pass as far as the knuckles—this instrument may serve to dilate further. But this must be done with great caution. The head being grasped, you may draw steadily down; and by keeping up gentle traction, the wedge formed by the blades and the head will gradually dilate the os, perhaps enough to allow it to pass, and thus save the child's life.

But it will occasionally happen that, neither by incision, water-pressure, the hand, nor the forceps, will you obtain an opening sufficient without danger of laceration or other mischief. In such a case, you are justified in reducing the head to the capacity of the cervix by perforation.

Narrowing and rigidity may exist in the vagina in consequence of similar conditions, and may be treated on the same principle. The small rigid vagina of a primipara is best dilated by irrigation and the hydrostatic dilator. This will often singularly shorten labour. Atresia from cicatrices presents a more formidable obstacle. I have found the passage constricted by dense cartilaginous tissues so as to permit no more than a probe to pass. In such a case, a careful process of incisions, multiplied in all points of the circumference, alternating with water-pressure, is necessary; and it is, after all, probable that you will have to meet the difficulty half-way by perforating the head.

Lastly, obstruction may occur at the vulva and perinæum. In primiparæ especially the vulva may form a small rigid oblong ring, scarcely permitting the scalp of the presenting head to show through it. The expulsive pains cause the perinæum behind this ring to protrude; but the ring itself will not open; in fact, the perinæum will yield first. It bulges more and more, and may give way in the raphe, just behind the commissure, this part remaining for a time at least intact. A central rent is thus made, through which the child has occasionally been expelled, instead of through the vulva. Or if the perinæum does not yield, something else must. The uterus will cease to act, or, struggling in vain, may burst. Here, again, you may avoid mischief by incisions. The forefinger is passed between the head and the edge of the vulva, and two or three small nicks are made on either side, nearer to the posterior commissure than to the anterior. The relief sometimes gained in this way is surprising. Spasm, irritation, pain subside; the vulva dilates, and labour is soon happily at an end. The bleeding is insignificant; and the minute wounds left when the parts have contracted quickly heal.

Sometimes the vulva, including the labia majora, is so greatly swollen by serous infiltration, as to offer a serious obstacle to labour. This condition is commonly associated with albuminuria and convulsions. And out of this association a double difficulty arises. The convulsions urge to the acceleration of labour; the state of the soft parts forbids active interference. If the head comes down through tissues thus distended by fluid, not only laceration, but subsequent sloughing or gangrene may result. The obstacle to labour, and the local mischief may be avoided by pricking the skin and mucous membrane in numerous points, so as to let the serum drain off. The operation is performed by a lancet held by the blade between finger and thumb, at a distance of a quarter of an inch from the point, so that the stabs made shall not exceed that depth.

Any point of the parturient canal may be swollen so as to impede the descent of the child by a submucous infiltration of blood—the so-called thrombus. I have seen a large tumour formed in this way on the os uteri; but the more common seat is the labia of the vulva. It is not desirable to open these collections of blood, if it can be avoided. But if the obstacle be so great that the head, in passing, threatens to burst and rend the tumour, it is better to open it with a lancet. As soon as the child is born the part should be carefully examined to see if it bleeds; and pressure upon it by plugging will be necessary.

In cases of formidable obstacle from cancerous or fibrous growth recourse to the *ultima ratio*—the Cæsarian section—may be indicated.

The Medical Candidate for Manchester.—The Manchester election on Tuesday terminated in favour of Mr. Jacob Bright, who carried an overwhelming majority of votes. At four o'clock, Mr. Bright had polled 8260 votes, while Mr. Bennett had obtained 6499. Mr. Henry, we regret to say, polled only 642 votes in all.

New Mercantile Marine Regulations.—The operation of the new Act may be said to have been initiated by the issue of the circular of instructions relative to lime and lime-juice by Mr. Thomas Gray, Marine Assistant-Secretary to the Board of Trade. The circular was originally drawn up by Mr. Gray, in conjunction with Dr. Dickson, R.N., and Mr. Harry Leach, who has been appointed Medical Inspector under the new Act. It refers to the several conditions to be carried out in the examination, mixing, bottling, packing, and storing of the juice. The new legislation commences to operate on January 1 next, from which date all lime and lemon-juice for use on board ship must be had from a bonded warehouse.

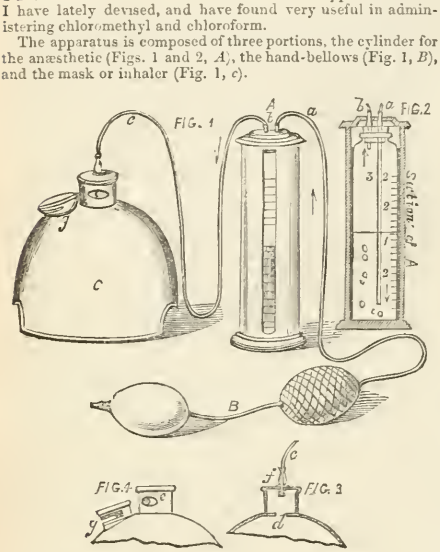
ORIGINAL COMMUNICATIONS.

DESCRIPTION OF A NEW APPARATUS FOR ADMINISTERING NARCOTIC VAPOURS.

By F. E. JUNKER, M.D., etc.

I BEG to make known to the Profession an apparatus which I have lately devised, and have found very useful in administering chloromethyl and chloroform.

The apparatus is composed of three portions, the cylinder for the anæsthetic (Figs. 1 and 2, *A*), the hand-bellows (Fig. 1, *B*), and the mask or inhaler (Fig. 1, *c*).



The graduated glass cylinder (Fig. 1, *A*, and Fig. 2) holds two ounces of fluid. It is closed by an airtight top, through which two tubes enter, a long one, *a*, which reaches nearly to the bottom, and a short one, *b*, which ends at the lower level of the stopper. The hand-bellows, *B*, which are the same as those used with Dr. Richardson's spray apparatus, are connected with tube *a*, and force the air into and through the anæsthetic fluid as indicated by the direction of the arrows. The air, impregnated with the vapour, passes through tube *b* into the inhaler, *c*, by means of an elastic connecting tube of convenient length. The glass cylinder fits into a stand made of a non-conducting material lined with velvet, which is necessary to prevent the chloromethyl from boiling when used in a hot room. The stand has a graduated side-slit, in order to enable the quantity of the anæsthetic used to be observed. The cylinder ought not to be charged more than two-thirds, in order to prevent a portion of the fluid escaping through the connecting tube whilst working the bellows.

The mask or inhaler, *c*, is made of vulcanite, and has the shape of one half of a hollow spheroid of three inches and a half in diameter at the base and two inches and a half in depth. The rim has two notches for the prominences of chin and nose. In the centre of the mask (Fig. 3) is a hole, *d*, of the calibre of the connecting tube. The chamber above it (Figs. 3 and 4), measuring one inch and a quarter in diameter and one inch in height, has a double fenestrated side-wall, by the turning of the outer portion of which the openings may be either closed or opened. Through the top a short tube, *f*, enters into the chamber, projecting a quarter of an inch within it, and outside to a sufficient length so to fix the connecting tube. This chamber prevents the freezing up of the end of the tube *f*, which would otherwise sometimes happen, if the end of the tube were exposed immediately to the warm breath of the patient during the administration of chloromethyl. The sideway ventilator of the chamber admits an additional supply of air if chloroform is used. At the side, corresponding to the openings of mouth and nostrils, the mask is furnished with a protector valve (Fig. 4, *g*) to discharge the expired air.

This apparatus is very safe and convenient in its use, and a very small quantity of the anæsthetic and a shorter time is required for narcotisation. The quantity of the anæsthetic supplied is easily regulated by a mere gentle pressure of the bellows.

Dr. Richardson has kindly undertaken to calculate the quantities of chloromethyl and chloroform taken up into the air and discharged by each pressure of the bellows at a given temperature. The result of his investigation I will communicate in a future letter, as well as some account of various cases in which chloromethyl and chloroform have been used, and endeavour to note their comparative value.

This apparatus has been constructed by Messrs. Krohne and Sesemann, of 241, Whitechapel-road, who have also added to it a spray-jet for local anæsthesia. It may be used as an inhaler for other volatile substances.

The whole, with phials for chloroform, chloromethyl, and compound anæsthetic ether, is fitted into a small portable bag or case, and forms a complete "anæsthetic compendium."

36, Mount-street, W.

ON THE

PREVALENCE OF CHOLERA IN INDIA ACCORDING TO SEASON, AND ON SOME POINTS IN ITS ETIOLOGY.

By JOHN MACPHERSON, M.D.,
Inspector-General of Hospitals (Retired).

(Concluded from page 563.)

ALTHOUGH it has been convenient to study the history of cholera in the towns of Bombay and of Calcutta in order that we might watch its habits where it was permanently fixed, yet these places show very imperfectly the influence of season, climatic influences being very much superseded by their locally unfavourable hygienic conditions. It has already been said that the influence of season could best be illustrated by the history of places in which cholera does not prevail all the year round; and as this can be made strikingly apparent by some figures taken almost at random from Mr. Bryden's Annual Returns, Calcutta, 1865, they are inserted here, though a little out of place.

Table showing Admissions to Hospital from Cholera and from Fever in the Year 1864, among Native Troops in Stations and Native Prisoners in Gaols in Bengal Proper.

	Native troops.		Prisoners.		Total.	
	Cholera.	Fever.	Cholera.	Fever.	Cholera.	Fever.
January	—	314	6	616	6	930
February	—	250	47	511	47	761
March	12	297	140	671	152	968
April	17	355	265	631	282	986
May	31	533	81	642	112	1175
June	12	444	36	622	48	1066
July	5	493	19	761	24	1254
August	2	683	11	890	13	1473
September	2	474	6	806	8	1280
October	6	581	8	900	14	1481
November	15	786	24	768	39	1554
December	6	688	12	648	18	1336

The climate of the places to which these returns refer is essentially the same as the climate of Calcutta. Dividing the year into the usual seasons, we have the cases of cholera thus distributed:—

Hot weather.	Rains.	Cold weather.
573	76	84(a)

It may be remarked, in passing, that the columns of fever refer almost solely to intermittent malarious fevers. It is a widely entertained opinion that cholera is of the nature of a pernicious intermittent fever. It will be seen that there is nothing in this table to encourage that view. On the whole, there was least cholera, while there was most fever. It cannot, therefore, be supposed that the two were dependent on the same influences.

Since the above was written I have had the advantage of re-

(a) In a recent work, "Le Choléra en Alger," it is stated cholera has been invariably at its height when the sirocco blew, and disappeared with the rain and cold weather.

ceiving from Mr. de Schlagentweit his valuable "Numerical Elements of Indian Meteorology." He has determined the isothermal lines of India, not merely for the mean temperature of the year, but for the different seasons of the year, which he divides into cool (December, January, February), hot and dry seasons (March, April, May), the rainy or hot and moist season (June, July, August), autumn, with smallest variations of temperature with latitude (September, October, November). I have not space to go into his tables in detail, but they show in a very marked degree how the seasons in India vary in different places according to the geographical distribution of the land, and he was particularly surprised at the unusually great variety of the types of the four seasons. If cholera has much dependence on season, difference of type in different parts of India was only what was to be expected. His remarks on the climate of the Upper Provinces and of the Punjaub are most specially interesting in their relation to the singular fact commented on above, the prevalence of cholera there during the rainy season. He writes:—"In the Punjaub, and partially in the North-Western Provinces, the third period of the year does not retain the character of a rainy season. The precipitation takes the form of our summer rains, with thunder-storms, and the amount of precipitation declines most rapidly towards the North-West. This part of the year is the very season of an absolute maximum of heat, which was quite unexpected by me, as I had heard no complaints from Europeans or from natives about the heat being much greater than in other parts of India. Nevertheless, these provinces include a region for which the mean temperature during the three months exceeds 92°." Surely this maximum of heat and deficiency of the rainfall usual elsewhere afford a most satisfactory explanation of the prevalence of cholera during what is called the rainy season.

To press arguments like this too far, and to profess to be able always to discover at once the particular relation between cholera and weather, would be to do far more than has been done in the case of any other disease, and would be running into the common error of magnifying the importance of secondary agencies. I shall, therefore, only add a few figures, taken from Mr. Schlagentweit's table for the cool months—that is, December, January, February—showing the mean temperature in different parts of India of which we have spoken:—

Punjaub . . .	60—1	degrees
Calcutta and Malwah .	69	,,
Bombay	74	,,
Trichinopoly . . .	79	,,

Cholera is scarcely known in those months in the Punjaub, not uncommon in Calcutta, Malwah, or in Bombay, and about Trichinopoly they are, perhaps, its commonest season. With such facts before us, even if they are only approximately accurate, it is impossible not to see a connexion in India between cholera and at least one element of season, temperature.

Unwilling to admit that climate and season have in themselves any marked influence on the spread of cholera, Professor von Pettenkofer(b) has discovered in the Calcutta tables the most ample confirmation, he thinks, of the *grundwasser* theory. But, to my mind, these Bombay returns are as far from supporting it as the Calcutta ones. A leading point in his theory is that the period of the great risk of an epidemic is when the subsoil water begins to sink rapidly. Now, in Bombay fully as much as in Calcutta, the great season of the prevalence of cholera is four or five months after the last rains have fallen. There are, indeed, no accurate observations on subsoil water in India; but, as it must in the main be the equivalent of previous rainfalls or inundations, it seems highly improbable that there should be any sudden sinking of it so many months after the rainfall of the previous season.

It may also be observed that although there is much accordance in the period of prevalence of disease in both places, yet that Calcutta and Bombay are by no means very similar in many of their local conditions. In Calcutta we have alluvial soil just above the level of high water, the lowest part liable to inundations every September; we have a mass of huts with rank vegetation, stagnant pools and tanks, fœtid drains without the slightest current; water everywhere nearer the surface than in Bombay; distance from the sea, eighty miles. Bombay is a few feet above the level of the sea, by which it is almost surrounded; it is freely perflated by winds, unless in parts of the native town. The soil is not alluvial, but decayed trap; it gets far more dried up in the hot weather than that of Calcutta ever does. The vegetation is not so rank, and, though the town he filthy, it is not so bad in this respect as Calcutta.

But even if future observation were to prove that Calcutta and Bombay agreed in presenting exactly the conditions of subsoil water required by Pettenkofer, still there are numberless facts in other places quite irreconcilable with his views. A cholera epidemic may break out (though it does not frequently do so) at any place and at any season, even during the rains, when it is impossible to imagine that the subsoil water is sinking. It may break out in a ship in a river, or in one lying in an open roadstead or at sea; it may occur on an alluvial soil or on a rocky formation,(c) on a level plain or on a lofty mountain. There is no place which permanently maintains an immunity from it.

Cholera epidemics occur at the level of the sea; on the tableland of the Deccan, 1500 or 2000 feet above it; in Mysore, at 3000 feet; in the Himalayas up to 7500 feet. They occur in Calcutta, with water a few feet from the surface; at Cawnpore, with it sixty-five feet distant; at Bellary, where it can scarcely be found at all; on the top of Murree, at 7500 feet, where there is no place for water to collect.

While no observations have yet been made on ground water in India, one is at liberty to say that the presumption is that, under all these apparently different conditions, uniformity in the state of subsoil water will not be discovered; at all events, it appears premature to ascribe everything to its influence.

I should myself be inclined to attribute more to the immediate effect of rainfall on the upper layers of the soil than to those mysterious movements at the depth of some feet to which Pettenkofer attaches so much weight. Professor Ilitsch, of St. Petersburg, has well remarked that the materials for decomposition are to be found in the upper more than in the deeper layers of soil. But when we pronounce *ex cathedra* what the effect of such and such states of surface or of subsoil waters must be on disease or on the cholera germ, we are likely to overstep the bounds of legitimate induction.

But if I cannot in the influence of season perceive merely an expression of the *grundwasser* theory, I am far from wishing to interpret facts too narrowly, or to speak of heat and dryness of the atmosphere with a considerable range of temperature as being simply the two great factors in the production of cholera. They should be viewed in their general connexion, taking into consideration the nature of the soil, the presence of organic matter, whether vegetable or animal. Their influence on the drinking water should not be overlooked. Then the condition or predisposition of those who are exposed to cholera, and the presence or importation of its germs, ought all to be taken into account. Viewed in this general way, dryness and moisture of the atmosphere and range of temperature are palpable facts, the operation of which it is far easier to appreciate with exactness than that of wind, or barometric pressure, or the doubtful ozone, not to mention more special local influences, important beyond doubt, but the importance of which every local observer is inclined to magnify. To discuss these last subjects at length would be to go far beyond the scope of this paper, and would require an amount of local information such as I cannot pretend to possess.

Nevertheless, as cholera has favourite sites as well as favourite seasons, something may be said on them, and on some other points.

1. The favourite sites of cholera in India are undoubtedly low-lying districts, strips of land along the sea, mouths of rivers, places where the vegetation is luxuriant and the population crowded. In modern times these are certainly its favourite sites—not that it does not visit arid plains, scattered hamlets, rocky or even mountainous districts, although in the loftier ranges there is no such thing as cholera remaining in permanence.

It has long been the fashion to talk of cholera as an original product of the delta of the Ganges—it was so spoken of by the Constantinople Conference and in a late number of the *Revue des deux Mondes*, and, according to many, engendered by the dead bodies thrown into the Hooghly; but an examination of the history of the subject shows that if beyond doubt the delta of the Ganges is now a permanent seat of cholera, yet it has only been fixed in that district since 1817. There are at least two other great districts in which it continues seated from far earlier dates than any accounts we have of it in Bengal. I mean the Malabar coast and Malwah—the former, from its geographical position, not so important as the latter.

(b) *Allgemeine Zeitung*, and elsewhere.

(c) For instance, at Kotah, Joudpore, Kellacheepore in Bhopaul.

While it may be granted that Lower Bengal and Malabar present generally the characteristics of sites such as cholera affects, and are both producers of rice crops, that is not the case with Malwah, which differs very widely from them. Malwah is a high-lying district, 1500 to 2000 feet above the level of the sea, and it has no great rivers (d) and no alluvial soil, and it does not grow rice. As these three districts are far from agreeing in their physical configuration, being one a strip of coast, another the delta of a river, the third an elevated plateau—it may be well to examine some of their climatic relations.

	Average annual temperature.	Average cold weather temperature.	Average rainfall.
Malabar coast	81°	77°—79°	120 inches
Lower Bengal	80°	68°—70°	62 ,,
Malwah	80°	68°—70°	30 ,,

In these cholera-generating districts we have thus an agreement in the average annual temperature, the greatest difference in the amount of rainfall, and, though Malabar is much warmer in winter than the others, still there is no very low temperature in any of them. The probable inference is that rainfall has little to do with the production of cholera, and that the disease is in permanence in all three districts, because the temperature is never low enough to kill or render inert the cholera germ.

2. Then it is considered that certain habits of the natives favour the propagation of the disease—and, indeed, Mr. Orton pointed out such causes as helping its spread both in India and in Paris as early as the year 1832—but, though such habits may have their share of influence, it is to be remembered that, although particular districts are especially infested with cholera, yet in every part of Hindostan proper the natives agree in the one habit of passing their evacuations *sub dio* as much as possible. Much has been attributed to filthy public latrines, but all the early epidemics took place before public latrines had been introduced. According to the theory which requires fermentation of the evacuations to make them noxious, latrines are especially injurious. But in the case of troops on the line of march and not in standing camps, latrines cannot bear the blame. Cholera, too, frequently breaks out on ground where no history can be got of any special previous contamination. That, on the whole, filthy places with accumulations of any kind of dirt offer the best nuclei for the ravages of cholera, and of other epidemic diseases, is beyond doubt (although there are frequent exceptions to this, as in the late great epidemic in Malabar, where 14,000 men died in one district in one month, while it was found that the detached houses suffered quite as much as the crowded filthy villages, and similar facts have been lately recorded in Holland and elsewhere). But mere fæcal accumulations are insufficient, even those contaminated with cholera evacuations. Such always exist in Calcutta, but it is only at particular times and seasons that we have cholera epidemics.

3. Much of this applies also to drinking water. It may often be polluted, but cholera epidemics only come at particular times. Although the natives of India are very careful about its purity, still they often cannot procure a supply of good drinking water. It may be taken from the most various sources—from tanks, from rivers, or from wells—and no doubt during the cholera or dry and hot seasons it is apt to be both scanty and muddy. As to special contamination with excreta, under ordinary circumstances at a season of the year when the surface is so dry that there can be little percolation to any depth into wells, and when there is no rain to wash them into tanks, it does not seem probable, although in the midst of the distress of a cholera epidemic with a dearth of water it may occasionally be possible. However, that specially contaminated water is by no means necessarily present is, I think, shown in the case of outbreaks during the rains, when water is abundant, and in cholera on board ship, where the drinking water cannot possibly be affected in this way.

4. It has been maintained that temperature and range of temperature cannot have any influence on the production of the disease in India, because they appear to exercise little effect on it in Europe. Granting for a moment that this was the case—and the whole history of the disease in Europe goes against such an admission(e)—still, the influence of range of temperature in India and in Europe on the system may be very different. A change of 20° of temperature, when the body is covered with perspiration, may have a different effect from the same when the skin is dry; it may not be the same when the temperature of the air is from 85° to 95°, and when it is 65° to 75°. Dr. Chuckerbutty(f), in commenting on the Calcutta tables, ingeniously points out that though the range of temperature is considerable in the cold weather, his countrymen do not suffer much from it at that season, because they clothe themselves as warmly as they can, and therefore do not feel changes of temperature so intensely as in the hot weather, when they go as nearly naked as possible and are therefore more susceptible of the effects of range of temperature. These are not so easily demonstrated as those of high temperature, which may be supposed both to favour the spread of the cholera germ, and to predispose the constitution to receive it, while range of temperature probably only acts in the last of these two ways; but to deny the effect of range of temperature is to deny the influence of heat in the production of diarrhœa and of abdominal affections generally. All writers have always attributed a very positive influence to it,(g) and, indeed, many French ones make it take the place of malaria in the production of intermittent fever.

The Calcutta and Bombay returns appear to show that the higher the mean temperature is the more its range would seem to tell in favouring the spread of cholera—little in the cold season, much in the hot. Should this generalisation prove correct, it may help to explain various apparent anomalies. But I do not put it forward very confidently.

Lastly, to prove that season has not an important influence on the spread of cholera, it would be necessary to show that the agencies usually believed to be concerned in its propagation—human intercourse, fæcal contamination through various channels, subsidences of subsoil water are equally potent at all periods of the year. Not denying the influence of any of these causes, still it appears to me that season is one of more general application. While the operation of the other causes, taken singly, must often be only an assumption, the influence of season cannot be called in question. It has been shown over too many years and over too large an area.

While thinking it probable that temperature is one of the essential elements of what is described as epidemic influence, its recognition as such, or its recognition as a powerful factor, does not in any way lead to a neglect of other causes influencing the spread of cholera. Apparently there is nothing in the sporule or germinal matter theories irreconcilable with it. Few, I suspect, are so familiar with the habits of the lower forms of vegetation which are believed by many to be the source of cholera (h) as to be able to pronounce positively about the behaviour of those minute sporules when exposed to heat and cold, moisture and dryness; but it may not be out of place to call attention to some of the characteristics of the three diseases in which particular sporules have been believed to be the active agents. Some interesting hints on the subject are to be found in Bouchardat's *Annuaire* for 1866, and in Dr. Morris's "Germinal Matter."

1. Intermittent fever is endemic under various circumstances of soil, in almost any temperature. It cannot be conveyed by men marching or in ships. It may reproduce its phenomena in the system for months or years. It predisposes to further attacks.

2. Yellow fever originates in places enjoying a high temperature. It can be carried by ships to colder climates, but does not spread in them. It does not reproduce itself in the same person, and usually gives immunity from future attacks.

3 Cholera originates in places having a high temperature. It can be carried in ships, and it travels by land to other countries. It thrives for longer or shorter periods in colder countries, but it shows a very distinct preference for high temperatures. It never, like ague, reproduces itself in the system. It certainly gives no permanent immunity from future attacks.

But it may very likely be remarked—After all, what have you shown? That season has a considerable influence over cholera? So it has over many diseases. What the wiser are we? We have at least ascertained, whatever its nature may be, that cholera is one of the diseases over which season

(d) The Nerbudda, running through a corner of it, is scarcely an exception to this.

(e) The prevalence of cholera in Russia and elsewhere occasionally during winter will no doubt receive an explanation some day, if it has not done so already.

(f) *Indian Annals.*

(g) The opinions of authors are well brought together by Dr. John Chapman in his recent work on cholera.

(h) We have *Bengal* rice recooked for us.

exercises a more than usually marked influence.(i) Nor in its application is this fact barren of results. When cholera is always hanging about a place in India, not merely occurring at the usual season, we may assume that there is a local removable cause. It teaches us at what seasons to make preparations for meeting invasions of cholera in different parts of India, and at what periods special precautions should be taken to prevent its importation into other parts of the world; for, notwithstanding its many visits to Europe, we are happy to think that it is not yet acclimatised among us, and that we have still to look to an Eastern origin for its invasions. Nor is a further use of it to be despised. When we know that cholera has certain seasons of prevalence, of rise and decline, we shall be less apt to exaggerate the effect of the measures that we take against it, more able to appreciate their absolute value dispassionately.

While we view with great self-complacency the result of the last visit of cholera to England, and are congratulated by our friends on our improved sanitation and on being a practical people, it is well to recollect that the last epidemic has in many parts of Europe been as severe as ever; that in some of their chief cities the Germans are in despair as to the results of disinfection; and that during the present year some of our Indian provinces and of our European troops have suffered to a fearful extent from epidemics of the disease. It is not yet time to rest on our oars.

35, Curzon-street, W.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. VII.

Abdominal Diseases.

On taking a physiognomical survey of those diseases in which emaciation of frame constitutes an early symptom, we naturally expect to find this event connected with disease, or at least with derangement of the organs of assimilation. Here we may be met, however, with the objection that pulmonary tubercle is an exception to such a rule. It will be found, however, that this scourge of our island, like struma, cancer, etc., is first developed through some iosidious vice in the formative operations of the abdominal organs. It may be an error of deficiency in the conversion of albuminoid substances into a body some degrees higher in vitalisation than albumen, *i. e.* fibrine, or in the further imperfect incorporation of fatty matters with these albuminous or proteine bases, whose presence is essential, not merely for the maintenance of a combustive process, but for some special purpose in nutrition. In other words, in lieu of that accurate adjustment of proximate elements during assimilation necessary for building up the waste of organic tissues, there exists an enfeebled vitality in this organism, which fails to elaborate the primitive constituents in perfect integrity. These degenerate molecules, impinging on various parts or organs of the body as so much effete material, are subject, in their turn, to the same pathological law for their extrusion from the surrounding healthy tissue as is seen in the process of exfoliation and repair of a necrosed bone, etc. In this mode tubercle becomes nascent in the pulmonary or serous tissues of the fœtus in utero, lies dormant for twenty or more years; at length organic or inorganic agents, within or without, suddenly or gradually operate upon it, break up its primitive arrangement of structure, eliminate it from the adjacent substance, and ultimately leave the part rid of its foreign and evil neighbour. The softening of tubercle is therefore a curative process when viewed in this light, so that, suiting our appliances to foster this process, we now meet with many well-authenticated cases of "consumption cured" under the modern and improved system of treatment.(a) Wherever this defection lies, emaciation is the earliest, nay often the first, indication of the ravages of the enemy, and we have had abundant proofs of the incalculable benefit of remedies used under a conviction of the truth of the foregoing views; nay, in some striking instances of tubercular softening with amphoric breathing, etc., a complete restoration has followed the treatment we have adopted. This has consisted in forming, at an early period, an issue the size of a florin over the softened lung, and maintaining a free discharge during ten or fifteen weeks, the introduction of a protosalt of iron to the red corpuscles, and of oleaginous bodies in small quantity, especially a cod-oil emulsion at night only; whilst, by administering tone to the digestive powers, the progress of the evil has been thus repressed. Seeing that the chief inorganic constituent of blood is phosphorus, its salt with iron is preferable. Now, it would appear probable that both of the foregoing errors—viz., a deficiency in the conversion of albuminoid and of fatty bodies—concur and coexist in the production of a strumous and a cancerous diathesis. As far as our own experience extends, the former are great flesh-eaters and avoid fat and sugar; but not so with the latter, who are often fat, flabby, and blowzy ere the disease exhibits its ravages in emaciation, etc. Again, the excess of albuminoid structure in these fatal deposits would appear to favour the supposition that highly azotised or pseudo-fibrinous matters were allowed to escape through the organs of assimilation without being perfectly disintegrated, and rendered fit to become vital or healthy—"pabulum sanguinis," or "circulating flesh;" for it is a well-established fact in pathology that, with an enfeebled digestion, we not only have to combat with an utter aversion to animal food, as in early tuberculosis and its handmaids chlorosis and anæmia; but we notice that cod oil administered in large doses, under such circumstances, passes away in defecation unaltered, and affords no benefit to the nutritive powers.

That cancer germs and cells are morbid elements of the native tissues of the body, developed, as already hinted, by some perverted energy of the assimilating process, seems also to derive support from the fact that its allied diseases are often present in various blood-related members of a family, all of whom possess a temperament distinguished by feeble formative powers. The degeneration of a vigorous family stock by "breeding in and in" may establish an innate malignant diathesis, or a powerful tendency thereto, when efficient moral and physical causes co-operate. The effect in each is identical—a deficiency in those nucleated cells from whence white corpuscles originate, and, as a sequence to which, a scanty supply of red blood and an absence of hæmatin and iron in them.

It is a well-known fact that hybrids, both in the animal and vegetable kingdom, are rare in a wild state; when present, they are seldom permanent or fertile, and always exhibit a tendency to return to one or other of the original types from which they sprang. Phytologists assert that the reproductive organs and flower of a hybrid partake of the character of the female parent, whilst foliage and habit resemble the male. May not this fact teach us to view the metamorphosis of cancer tissue in woman as likely to be transmitted to the organs of generation in her female offspring, but to the assimilative organs in the male issue? Thus malignant disease in the stomach, skin, liver, or mesenteric glands—probably the true seat of nascent tubercle—in a youth may follow a marked cancerous diathesis in the mother, but the mamma and uterus would be the seat of the hereditary tendency in her girls. Such a pathological law no doubt pervades the human species, and is highly subservient to the control of the unnatural issue of these blood-related marriages.(b)

In a quinquennial period the Registrar-General furnishes us with 11,662 cases of cancer in all classes in England, exclusive of the metropolis, and of these 8746 were in the female. "The difference," observes Professor Simpson, "is principally due to the circumstance that this fatal disease is extremely apt to become localised and take origin in two organs peculiar to the female—viz., in the uterus and in the mamma. Perhaps of 8700 of these deaths more than one-third were cases of cancer uteri."

The offspring of marriages of consanguinity afford collective instances of struma, cancer, tubercle, mania, and diabetes. Physical and mental degeneration are observed as the usual products of these unions. A sudden violence falling on the intellectual powers of such individuals often calls up one or other of the above diseases, especially the two last mentioned,

(i) This is very freely acknowledged in the Berlin official report on the late epidemic.

(a) A striking instance of the kind is, or was, in the Museum at St. Bartholomew's in a lung containing thirteen distinct cicatrices from tubercular softening and reparation, taken from a man who died in the accident ward from severe injuries.

(b) Sir John Sinclair carried the experiment of breeding "in and in" with pigs to such an extent that the females almost ceased to breed, and, if they did breed, the offspring were so small and delicate that they died as soon as they were born.

just as irritating the floor of the fourth ventricle has established a temporary glucose state of urine.

Many well-marked instances have come under our notice where the healthy tone of the pneumogastric tract has been altered by a depressing mental shock, and glucosis has resulted. But in almost every case the prevailing diathesis of the other members of the family has exhibited a tendency to tuberculosis or cancer. Thus the fatal "cold caught" calls up the inherent disease in the lungs or the blow on the breast, or the cessation of the ordinary functions of the uterus leads on to a development of scirrhus, and a mental conflict too often is a precursor of permanently deranged faculties in a subject in whom mania was previously nascent.

But how may we define healthy assimilation, or what does the process imply? Correct notions on the subject are indispensable in the treatment of disorders of every grade, especially of those under review.

Now, the first development of life out of the constituents of ingesta appears in the mysterious conversion of albumen into fibrine—that is, a non-coagulable body into one capable of spontaneous coagulability and possessed of a tenacious fibrous character. This living or organisable agent from an inorganisable one is then capable of being applied to the nutritive purposes of the animal. In addition to this vitalised ingredient, we meet other elementary bodies, "chyle corpuscles," evidently the product also of some vital rearrangement of molecules, whilst the nutritive fluid percolated through the mesenteric glands ere it entered the thoracic duct. This main blood-feeder being charged with a living stream, constituted of albumen, fibrine, and chyle, renders to the blood just that kind of supply of food which enables it to maintain its normal vitality. The *chair coulante*, as our neighbours aptly term it, is then endued with materials calculated to supply the waste of muscular tissue and meet all the demands of healthy organism. Its wasted vigour is also renewed by supplies of oxygen from vital air, on the one hand, whilst its powerful coadjutor in this depurating process, the portal system, assimilates nucleated cells of fatty matters ere its entire mass can be elaborated into and mix with the fluid in the pulmonic heart for further decarbonisation.

Perhaps in no department of pathology can the various stages of inflammation, with its products and effects, be so thoroughly studied as in Ophthalmic Surgery, whilst the gradual deviations from healthy structure are presented to us in a more consecutive form in Dental Surgery. We may obtain daily specimens of a deranged formative process in teeth. The deficiency of calciferous elements of dentinal cells, giving rise to fissures on the coronal surfaces, are met with as emblematical of innate struma. In this diathesis, as in rachitis, the inorganic salts needed for the osseous and dental structures are either imperfectly abstracted from the ingesta in the assimilative process, or are suffered to pass away altogether with the egesta; hence the uniformity of the post-mortem appearances in liver, spleen, mesenteric glands, etc., in each disease.

One has often observed a molar tooth in a strumous child of 12 years of age rise out of its bed decayed and worthless. The fact is quite as allusive of vice in the formative powers, and is as predicant of defective nutrition, as the tumid belly, emaciated limbs, large forehead, bandy legs are expressions of deficient energy in the organs of digestion in its kindred rickets.

It would appear by analogy that a deviation from healthy organisation is transmitted from parent to offspring, according to the same law that controls peculiarities in the latter as derived from the former. A pair of cream-white pigeons threw several broods, similarly feathered, until one of the fourth pair of young ones had a jet-black feather in the wing; a sixth pair had a similar one in the tail. It was ascertained that on one occasion the faithless female had escaped, and was trodden by a neighbour's cock which had several black feathers in the wing and tail. The memorial of the mother's waywardness did not leave the offspring during the whole time the pair was in the writer's possession—upwards of two years.

Such facts in physiology as well as in diseased actions prove the truth that "every living organism has had its origin in a pre-existing organism;" and that the primordial germ is developed under several conditions, one of the most important of which is "the properties of the alimentary materials which are incorporated in the organism during its development." These operations are wholly under the influence of the cerebro-spinal tract; for although we are accustomed to speak of the processes of assimilation being controlled by the sympathetic system, yet, observing that various passions and emotions of the mind affect the organic functions through this channel, we are led to conclude that these powers coalesce with the animal life, which in man is again presided over by intelligence ennobled by his rational and moral nature, as distinct from a brute.

This empire, as it existed in its primeval integrity, was but a reflection of that unsullied majesty and purity which "no (mere) man can approach unto." But as soon as this divine image became marred, intelligence was blasted by pride, ambition "to be as gods" followed the unhallowed spirit, and the baneful fruits of sin, disease, and death, "too soon arrived, now in body, and to dwell habitual habitant." From that direful moment the inexorable law of righteous retribution was set up in the court of conscience. As thou didst, so shall it be done unto thee. Thou hast admitted pride to mar thy pure intelligence, and now that impure fountain shall mar thy mortal frame.

The faculties of the soul and organs of the body were thus involved in one dire infection. Perfect integrity in every intellectual exercise in man is as incompatible with his mortality as is an uninterrupted perfection in every action of the animal life. Even the fruits of an overtaxed mind upon the functions of the body are seen in the daily routine of a metropolitan practice, and the shock of some distracting news may not only arrest the process of assimilation, but convert a hungry stomach into a qualmy one, such as the wily Cardinal may have experienced when his royal master handed him his double dismissal with a

> "Read o'er this:
> And, after, this: and then to breakfast, with
> What appetite you have."

From the foregoing considerations we are compelled to construe all diseases as the product of a marred intelligence, whilst special diatheses, as struma, cancer, and tubercle, follow those "ill-mated marriages" where good and bad are matched, "who of themselves (should) abhor to join," and by such imprudence mixed, "produce prodigious births of body or mind." It is the opinion of the best writers on the subject that syphilis has existed from time immemorial, and that it always will exist in every town where promiscuous sexual intercourse takes place.

It only remains for us to introduce to our readers two portraits illustrative of malignant disease within the abdomen. The first is that of the stomach. "The fatal nature of this complaint, the obscurity in which it is sometimes wrapped, the possibility of overlooking it altogether or confounding it with disease of a more innocent character, combine to invest it with peculiar interest."(c) The young woman's case, with which the above eminent Physician opens his lecture on this subject, was under my notice daily. The mistaken notion of the abdominal tumour being an aneurism was removed by the fact that free purgation reduced its size, or very large enemata produced the same result. Obscure as the case was, and deceitful in many of its prominent symptoms, yet the wan cast, gradual emaciation, and especially the absence of that healthy hue of the capillaries of the skin, were early indications of malignant disease, and which have proved surer guides to a correct diagnosis in subsequent cases of a similar nature.

When the disease is situated in the pylorus, we may safely look for many of the following symptoms:—Acid eructations, and pain more or less over the pylorio surface within an hour after food; vomiting, with relief to the pain, the matters containing sarcinæ; costive bowels; emaciation. The nature of the disease will be still more evident if it has been preceded by long-continued indigestion, with especial distress after eating salted provisions, doughy food, etc., and by an attack of hæmatemesis. For, as cancer uteri is commonly ushered in with a severe and protracted (supposed) catamenial discharge, so one has frequently observed vomiting of blood to be amongst the earliest indications of structural disease in the stomach.

Both in Hospital and in Dispensary practice we have witnessed the great benefit of Dr. Jenner's suggestion in exhibiting full doses of sulphurous acid and of hyposulphite of soda one hour after meals.

Mary A., aged 56. As she presented herself for admission, the following physiognomical traits were noted down in the case book:—A dingy citrine-coloured skin; complexion, of face especially, sallow; features wan and pinched; a general sadness pervaded the countenance, as may be observed in the

(c) Sir T. Watson's Lectures.

angles of the mouth and nose being drawn downwards or depressed; a dark orbicular halo; drooping lids; eyes bright; skin cool; pulse quiet, regular; bowels costive; emaciation; abdomen flaccid; some slight fulness and tenderness on deep

and firm pressure in epigastrium. She was mother of several children; the climacteric period had occurred at 46. The symptoms for which she sought admission were as follows:—Vomiting more or less of all ingesta; otherwise pain, of a dull qualmish nature, within an hour afterwards, at the pit of the stomach. Sometimes a yeasty matter floats on the surface of the rejected food. The symptoms of indigestion have been creeping on for five years; but it is only within the last three months that emaciation, vomiting, and costiveness have supervened."

There could be little doubt that the pyloric end of the stomach was the seat of disease. Sarcinæ ventriculi were abundant in the yeasty matters vomited. The long-continued use of scruple doses of hyposulphite of soda, with an aromatic draught, afforded so much relief that she left the Hospital free from all sickness, whilst the pain after food was much mitigated.

It would be without the pale of the intention of these observations to follow the case any further, only to conclude these remarks by stating that the patient returned to us a few months afterwards worse, and ultimately we had an opportunity of verifying the accuracy of the diagnosis at a post-mortem examination. It proved to be well-marked scirrhus of the pylorus, without any intercurrent malignant disease in other parts.

The portrait suitable as a mate to the preceding is one of a series rarely met with at so early a period of life. The subject was a young woman (Charlotte K.), only 24 years of age,(d) who had suffered from uterine cancer for two years before her admission into the Hospital, where it proved fatal in six weeks. The physiognomical features were as follows:—Complexion sallow and cachectic; a general dragged anguish-like expression in the whole face (this was rendered more startling to us by the dark halo around the eyes, and by their lids being drawn unusually outwards); alæ nasi were in great action, so that their bases met the median cartilage.

The valuable practical remark made by Professor Simpson was verified in a fatal case about this period.

"In carcinoma uteri, not only may pain be absent, or, when present, slight and intermitting; it may sometimes be sympathetic, and located elsewhere than in the uterus, as in the mamma, in the sides, down the thighs, or elsewhere, in which case the attention of the Practitioner may be quite drawn away from the real seat of the disease." (e)

In confirmation of this remark, a Medical friend of ours practising at Southampton was suddenly summoned to the bedside of his mother in Devonshire. Profuse and uncontrollable uterine hæmorrhage had seized her for several days. The climacteric period was thought to be the cause, as no pain and no uneasiness were felt in the abdomen, but in forty-eight hours she expired under the suddenness and intensity of the drain. An unexpected mass of epithelial (cauliflower) cancer filled the fundus of the uterus. She had presented a wan, sallow complexion for months prior to this fatal seizure.

(d) In Mr. Sibley's statistics of female cancer (416 cases), the average age of those attacked with uterine cancer was 43·28 years.—See Report in *Medical Times and Gazette*, March 19, 1859.

(e) Dr. Simpson's Clinical Lectures on Diseases of Women, *Medical Times and Gazette*, 1859.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

(Continued from page 567.)

The Hebrew Wards—The New Wing—The Children's Ward—No-drug Treatment of Rheumatic Fever—Venesection—Cases of Coma—The Receiving-room—Apoplexy of the Pons Varolii and Opium Poisoning—The Ophthalmoscope in Nervous Diseases—The Laryngoscope—Cases of Atrophy of One Vocal Cord—Mental Affections in Children; Treatment by Bromide of Iron and of Potassium.

In the new wing—the Alexandra Wing—are male and female wards set apart for the Hebrews. (Jews contribute largely to charities, and the London Hospital receives liberal support from them.) These wards contain about eight beds each. There is a Hebrew kitchen and cook on purpose for these patients. Hung up in the ward is the Easter cake. It remains there for a year, and next Easter will be taken down and burnt. On the left-hand post of the door as we go out is a double slip of tin which contains two passages from Scripture—Deut. vi. 4—9, and Deut. x. 13—21—and has an oval opening in it showing the word "Shaddai" in Hebrew. This is called a "Mezuza." We must, however, return to more purely Medical statements, referring the reader to an article by the Rev. H. T. Armfield in *Good Words* for this month, "Jewish Domestic Economy."

At the top of the new wing are the night nurses' bed-rooms. They have, besides bed-rooms, a large sitting and dining-room. This is a great improvement on the old system, which allowed the night nurses to go home in the day, nominally to sleep, but often to work. Thus they slept at night in the Hospital, instead of minding their patients. They are all obliged to pass the day in the house now, and are overlooked by a lady superintendent.

It is reported that the Committee intend to build a wing,

to the east end of the Hospital, in a position corresponding to the Alexandra wing.

At the base of the new wing is the Children's Ward, where at present Medical and Surgical cases are mixed together. A patient, a year and five months old, has just been discharged from this ward, who, on admission, had all the appearance of rickets, associated with great enlargement of the spleen, a pale, wan complexion, and purpuric spots all over the lower extremities The child was expected to die when taken in, but, strange to say, under the administration of a preparation which goes by the name of lactose, containing, among other things, phosphate of lime, the child did extremely well, the purpuric spots disappeared, and the spleen could be just felt only in the left hypochondriac region.

On the middle floor (all the female patients are on this floor throughout the Hospital) is the Obstetric Ward. We shall give an account of Dr. Head's cases in a future report.

We now come to speak of some cases in the wards under the care of the Assistant-Physicians, and we mention this subtitle chiefly in order to remark that, thanks to the generous feeling of their seniors, the junior Physicians at this Hospital can always obtain beds in order to observe the progress of disease in in-patients.

Dr. Sutton has had under his care several cases of rheumatic fever treated without drugs, with the exception of a little opium when the pain has been severe, the essential principle of treatment being rest, or, as some would put it, "do-nothing" treatment. (Dr. Sutton has, in conjunction with Dr. Gull and Dr. Owen Rees, published in *Guy's Hospital Reports* cases of rheumatic fever treated by mint water.) In a few cases pericarditis has supervened, and with severity too; yet the patients have ultimately done very well indeed in most cases—the rule being that if they come in without any signs of heart disease, they go out without any. More opium is given in the most severe cases, and stimulants are usually administered. Rest is the great element in the treatment, the patient not being allowed even to sit upright in the bed, or to get out of bed on any pretence whatever.

Dr. Sutton has also adopted the practice of venesection in certain cases—a remedy nearly dying out. He considers that the most applicable cases are those of obstruction through the left side of the heart, and distension of the right. It will be observed that Dr. Sutton does not bleed for "inflammation," but for stagnation of blood. (The reader will be aware that Dr. Markham has insisted on the distinction which we have just roughly indicated in his valuable little monograph on Bloodletting.) In one case in which there was mitral obstruction and regurgitation, with considerable œdema and ascites, venesection gave great relief. In old cases of pulmonary emphysema, with superadded bronchitis, attended by marked lividity, venesection has been followed by decided benefit. We briefly mention the following particulars of the case of a patient, of middle age, suffering from lung disease—apparently emphysema, with dilated tubes:—There was very great lividity of face and lips. The dyspnœa was so great that the patient could not lie down in bed. He was usually seen sitting on the edge of the bed, very drowsy, and could move about with great difficulty. He complained of a constant burning pain at the epigastrium. As salines and stimulating expectorants failed to give him any relief, he was bled to about fifteen ounces. He expressed relief at the time. The next day he said he was decidedly better. He was able to walk about, was much less drowsy, and he went out in two or three days with the intention of resuming his work, being undoubtedly much relieved.

In another case a man, 26 years of age, had a cooing murmur of the heart, heard at a distance from the chest. His breath had been rather short in the evening, but one night he was somewhat suddenly seized with intense dyspnœa. The veins of his neck were immensely engorged; he was gasping for breath, and said he felt as if he was going to die. Mr. George Mackenzie, the Resident Medical Officer, at once took sixteen ounces of blood from the arm, and the man was at once markedly relieved, or, to use his own energetic expression, "his life had been saved by the bleeding." There have been several other cases thus treated, and with the best results. Dr. Sutton has treated several cases of simple acute pneumonia, cases in which the general symptoms and physical signs were very well marked, without drugs, merely giving a little peppermint water. They have all done very well, and the experience of the Physicians of this Hospital confirms the conclusion that other Physicians have arrived at, that it is comparatively rare for patients to die of simple acute pneumonia when the expectant treatment is adopted—that is to say, after treatment by rest and milk diet. For a careful discrimination of the many different lung diseases labelled pneumonia Dr. Gairdner's "Clinical Medicine" should be consulted.

We may just mention that one of the Physicians who had been treating a case with drugs energetic enough thought it right to omit medicine for a while, but he did not order any peppermint water or coloured mixture. The result was that the child's mother finding "nothing was done," took the child out, and, as it happened, on the day or shortly after the Doctor had prescribed another energetic drug.

There are a great number of cases of emergencies, such as of "fits," "apoplexy," "coma," "poisoning," "alcoholism," and "malingering." The diagnosis is often exceedingly difficult. We regret that we can find space for but one of the numerous reports of cases which, thanks to several Resident Medical Officers, Dr. Woodman, Dr. James Jackson, and Mr. George Mackenzie, we have before us. We will just remark that the cases show that there is no place where more is to be learned of the difficult work of our Profession than in the receiving room of a large Hospital, unless, perhaps, it be at a police-station. There are no cases in which more skill and knowledge are required than those of persons picked up senseless in the streets, or found comatose in bed. Many painful and ludicrous mistakes would be avoided if students' work in the receiving-room was greater.

A woman, apparently between 20 and 30, was brought in late one night by four policemen, who had picked her up, and brought her to the Hospital, under the impression that she was drunk. She was perfectly unconscious, and nothing would rouse her in any way. Several stimulants were tried, but unsuccessfully. Her face had a heavy and stupid expression; lips rather livid; eyes closed, pupils contracted to fine points; pulse slow; respiration laboured. Urine drawn off; was loaded with albumen. As nothing was known of her, she was treated energetically for poisoning by opium. She, however, remained in this comatose state till the next day, when she died, and at the post-mortem examination hæmorrhage into the pons Varolii was found. In our Reports, February 28, 1863, we published cases and remarks from the practice of Brown-Séquard, Wilks, and others, to draw especial attention to the difficulty there is in the diagnosis of opium poisoning from hæmorrhage into the pons Varolii.

We could relate many cases from this Hospital showing the value of the ophthalmoscope. It is to be remarked that when the discs show most striking changes the patient's sight may be apparently good. This, according to a Physician who has recently written on the use of the ophthalmoscope in disease of the nervous system, is not unfrequently the case.

The resident Medical officer of this Hospital, in conjunction with one of the Physicians, has now and then an "ophthalmoscopical evening," examining many patients with the ophthalmoscope as a matter of routine. As a consequence of these routine examinations several discoveries have been made of unsuspected changes of the retina, choroid, etc., even when the patients have not themselves been aware that there was anything the matter with their eyes. We say again, as we think it a fact most important to be known, that a patient whose fundus oculi presents most striking abnormal appearances may be able to read words in brilliant type, and thus the statement that a patient says his sight is good goes for very little as scientific evidence as to the condition of his optic discs.

We may take this opportunity of urging Physicians to follow the example set them by Dr. John W. Ogle, Dr. Russell, of Birmingham, Dr. Clifford Allbutt, of Leeds, and other Physicians, in using the ophthalmoscope in Bright's disease, in epilepsy, chorea, and other diseases of the nervous system. In chorea, however, we have not yet seen optic neuritis, and but once any considerable abnormal condition of the discs, but there are often changes, unsuspected by those who do not use the ophthalmoscope, in the eyes of patients who suffer epileptiform convulsions, "cerebral fever," etc.

Among Dr. Langton Down's out-patients are to be seen many children the subjects of different kinds of mental lesion. Dr. Down has tried a variety of medicinal agents, such as belladonna and hyoscyamus, with the object of controlling the nervous irritability which so frequently exists in cases of this kind. For a long time past, however, he has used in preference the bromide of potassium, either alone or combined with salts of iron. He sometimes gives the bromide of iron. At the same time, he prescribes cod-liver oil in small quantities. In many cases manifest improvement has resulted;

the patients have, he tells us, become less the victims of subjective sensations, and more impressionable to the objective world. It is in these cases where there is any tendency to lung disease of a tubercular character that Dr. Down prefers the bromide of iron; where there is a suspicion of inherited syphilis he gives the iodide with the bromide. He tells us, however, that in his experience syphilis is by no means a very frequent cause of congenital mental defects.

There is at present no special department for the treatment of throat affections, but Dr. Morell Mackenzie sees his laryngeal cases after prescribing for all the other out-patients. In our report of the Royal London Ophthalmic Hospital, in our first number this year, we have described the lamp Dr. Mackenzie uses. It serves for the ophthalmoscope, which instrument is much used by one of the Physicians. There are at present under Dr. Mackenzie's care two remarkable cases in each of which there is atrophy of one of the vocal cords. One case is that of a woman, aged 45, whose right vocal cord is reduced to a minute membrane, less than a quarter the width of the left vocal cord, and only present in the anterior third of the larynx. On attempted phonation, there is an opening about three-eighths of an inch wide between the right wall of the larynx and the median line or inner edge of the left vocal cord. There are no signs of cicatrices in the larynx or throat generally, but she has suffered from destruction of part of the nose, and has numerous scars from old ulcerations in other parts of the body. She states that she was married 18 years ago, and shortly after her marriage was infected by her husband. Sixteen years ago she was suffering from a slight sorethroat (at the upper part), for which she put on a mustard poultice. On waking in the morning her voice was gone, and it has never since returned. It is worthy of note that, twelve years ago, this patient suffered from paralysis of the right side (arm and leg), from which after several years she had gradually almost completely recovered. She has now threatening symptoms of hemiplegia on the left side.

The other case is much less complicated, and likewise affects the right vocal cord. The subject, a man aged 36, was formerly a drill-sergeant in the Marines, and is now a pensioner on account of the loss of voice which came on suddenly eight years ago whilst giving the word of command. There is no trace of the right vocal cord. The patient speaks in a very loud whisper. He had a chancre thirteen years before he lost his voice, but there is no evidence of his having had constitutional syphilis. Dr. Mackenzie observed that though *ulcerative destruction* of a greater or less extent of the vocal cords was by no means uncommon, cases like these, where there seemed to be a *true wasting* of the cords, were so exceedingly rare that he had only seen one of the same kind before.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 30, 1867.

MEDICAL SCIENCE AT THE WAR OFFICE.

A Blue-book, with the title of "Report on the Sanitary Condition of Gibraltar, with reference to the Epidemic of Cholera in 1865," and bearing Dr. Sutherland's name, contains exactly what our experience of Dr. Sutherland's writings has taught us to expect. There is a good topographical description of the station and the localities in which the epidemic appeared; a very able report of all the insanitary conditions which could be accused of having played a part—whether that part were a prominent or a subordinate one—in causing the epidemic in question; and some really good and practical proposals for their removal. Then there is an appendix containing a vast number of names, tables, figures, and collateral facts, piled up without too much regard to the taxpayer's pocket, or to their direct bearing and relevancy to the subject itself; and, lastly, there is a fearless assertion of Dr. Sutherland's well-known views on the causation of cholera. The author knows his own mind, and he has clearly no inclination to discover that cholera could, under any circumstances, be due to the introduction and presence of a germ which flourished and reproduced itself where the conditions were favourable to its development—whether in the localities or the bodies of persons inhabiting such localities. The whole facts of the case in Dr. Sutherland's hands support the theory which the author has formed, and which, it is obvious, is always uppermost in his mind—viz., that local conditions, conjoined with some other causes or influences, "operating in conformity with the same laws which have influenced the movement of all known cholera epidemics"—laws which, by the way, seem wonderfully clear to Dr. Sutherland—are the only factors at work, and that such elements as contagion, portability, and communicability of the poison, the effects of quarantine *et hoc genus omne*, are all imaginary.

Now, we do not pretend to say whether cholera be contagious or not; but we make bold to affirm this—that there is considerable room for a suspense of judgment, at any rate, and that a man who ignores the existence and operation of contagion *in toto*, particularly if placed in the elevated position of the accredited adviser of the War Office, is incurring a very grave responsibility, and may be "lulling people into a false and fatal security by diverting their attention from the true source of danger."

Practically, we may entirely agree with Dr. Sutherland that the safeguard of nations from pestilence is to be looked for in the direction of works and measures for removing local causes of disease rather than in cordons and quarantine. But that is not the question. Dr. Sutherland knows very well that quarantine has not been, and cannot be, enforced with all those precautions necessary to exclude sources of error, such as a chemist or physicist employs in performing an experiment. He knows, moreover, that there are a large number of facts, which he cannot gainsay, pointing to the origin and spread of cholera by the channels of human intercourse; he knows, also, that very able men engaged in practice, and therefore in a position to watch the progressive steps of a disorder during its actual prevalence, have been powerfully impressed with a belief amounting to positive conviction that human intercourse is one and a main factor in this disease. To set these facts aside as valueless does not appear to us to be an evidence of that impartial frame of mind which is essential to anyone who proposes to investigate, much less dogmatise on, the causes and laws of epidemic disease. We know that the facts he describes about Malta and Gibraltar are capable of receiving, and have actually received, a very different interpretation at the hands of others.

The public may not know, but Dr. Sutherland could scarcely have been ignorant, of the existence of published documents in which the authors arrived at conclusions totally opposed to his. Between his reports and those published in the Army Medical Blue-books by Dr. Leith Adams, Drs. Rutherford and Barrow, and Professor Parkes, the War Office and Horse Guards may well be perplexed; but we venture to say the Profession generally—and, after all, questions of scientific evidence and skilled inquiry must be weighed and decided on by a special jury—will accept the conclusions arrived at by those who were spectators and eye-witnesses of the events they recorded in preference to conclusions which are at variance with accepted opinions and clearly opposed to the tendency

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and direction of all recent discoverics in physiological and pathological science. The following are the points which the author believes he has established :—

"The disease attacked all classes of the community ; and out of an estimated aggregate population of 24,319 there were about 1100 cases, and, on the lowest estimate, 568 deaths. The mortality was 23·3 per 1000 of population—a death-rate which, if it had prevailed in London, would have been represented by 46,000 deaths. The disease, it is urged, was part of a cotemporaneous epidemic which destroyed multitudes of people in Asia, Europe, and Africa. It was not due to communication from person to person, nor was there any evidence to prove that it had spread from any centre. The severity of the disease was obviously connected with local predisposing causes. Wherever the epidemic prevailed, unhealthy conditions were invariably present, and in the town of Gibraltar the most prominent of these conditions were overcrowding, bad water, bad drainage, cesspools, dirty houses, dirty habits, and spirit drinking, in reference to which it appears that the cholera carried off all the worst drunkards. All the deaths in Gibraltar took place in houses where the water supply was more or less impure or unwholesome. All the barracks attacked with cholera were very much overcrowded, and the barrack-rooms, with few exceptions, were all inferior or bad, either in position, plan, or construction. The system of drainage in the town appeared almost to have been specially contrived to supply the houses with sewer air ; some of the sewers were found loaded with deposit, and the sad experience of the late epidemic has led the Sanitary Commissioners to decide that the present sewers and drains must be destroyed, and the whole system relaid on sound principles. During the cholera epidemic no cases occurred in quarantine among 634 vessels which came from infected ports."

In conclusion, we would add that whilst, with all sensible men, we would advocate the removal of those insanitary conditions which allow contagious matters to take root and flourish, we yet hold that the balance of evidence has hitherto been in favour of preventing, by every means which science can suggest, the importation of the seeds of epidemic disease.

THE ABYSSINIAN BLUE-BOOK.

In the recently published Blue-book on Abyssinia it is gratifying to observe that the Government appear determined that nothing shall be left undone, so far as Medical arrangements are concerned, to render the expedition a perfect success. Also that not only as regards the vindication of the national honour, but as the means of increasing our stores of historical and scientific knowledge, the expedition is likely to furnish the most valuable results. This is perhaps the only other return which we may receive for our expenditure ; but it would be difficult to estimate its ultimate value.

The memoranda of instructions to the sanitary officer, after collating information from all the available sources, are divided into three heads—viz., conditions of climate, conditions connected with the habits and diseases of the people, and, lastly, those conditions incident more or less to all armies on active service.

The uncertain character and possible insufficiency of the water supply occupy the first place in the remarks on climate. Next comes the probability of the occurrence of malarial fevers, dysentery, hepatic and splenic affections, ophthalmia, and heat apoplexy. The necessity of vigilant attention to the character of the water used for drinking purposes is duly enforced, and it is stated that "there is much reason for believing that water obtained from low-lying sandy districts, and that procured by digging into a soil containing vegetable mucor or *débris*, may be the vehicle of a malarial poison and the cause of intermittent fevers and dysenteric disease."

The probability of the necessity of entirely avoiding the use for drinking purposes of water obtained by digging in the sandy districts bordering on the sea is mentioned, and that the troops may have to depend upon artificial sources of supply, or on the carriage of water during their transit over these parts. Under these circumstances, "it has been stated by an African traveller who made the desert journey from Bhedan, and whose assistants suffered in health apparently from impure or tainted water, that all fresh and new skins for its transport on camels ought to be strictly avoided, a preference being given to old and well-worn but still serviceable skins." This is quite in accord with Indian experience on the same point, the water-carriers in that country being in the habit of seasoning their *mussucks* by fetching water for horticultural or other external purposes for some time before using them to convey drinking water. It would of course be absurd to make the suggestion as respects an army, but we may mention that water melons, when procurable, have been found by travellers through arid regions to be invaluable as a means of supplying water in the purest and most agreeable form.

It is suggested that the sanitary officers should be supplied with chemical appliances and tests in a portable form for the purpose of roughly determining the purity or otherwise of water used for drinking purposes. The suggestion has been adopted, and six portable cases—designed, if we are not misinformed, by Professor Parkes, of Netley—containing the necessary materials have been despatched to Aden, to the principal Medical officer of the expedition.

The importance of fresh meat and good vegetables as articles of diet, and the necessity of guarding against scorbutic disease by the issue of these whenever procurable, are duly alluded to ; when they cannot be obtained, lime-juice and other substitutes, such as the ripe and wholesome fruits of the country, should be allowed. Assistant-Surgeon A. Neill, who has travelled in Abyssinia, and has given a good deal of information as to the Medical topography and productions of the country, in a letter to the Under-Secretary of State for India, also published in the Blue-book, states that grapes, figs, and pomegranates are extensively produced.

The contrast between the climatic and meteorological conditions of the arid unhealthy seaboard and of the highlands, and the necessity of preparing the troops for the consequent vicissitudes of temperature by suitable clothing, are duly enforced. Rules are also suggested as to the most suitable time for marching and the selection of healthy places, the advisability of issuing hot coffee to the men before the march, the necessity of thoroughly cooking all meat and vegetables, and of avoiding all excess in spirituous liquors, the selection of the strongest and healthiest men for all forced marches and tentative expeditions, and the avoidance or removal, as far as possible, of all depressing causes of a temporary kind—such as fasting, exposure to cold, insufficiency of clothing, want of sleep, and such like, before such expeditions—are clearly laid down.

Among the conditions arising from the habits and diseases of the native population we find mentioned the prevalence of the tapeworm, and the liability of the streams and herbage to become infested by the ova of the parasite, through the dirty habits of the natives and the number of dogs and other animals frequenting their villages. The tapeworm most commonly, if not exclusively, met with in Abyssinia is not the common one, but the *Tænia mediocanellata ;* the *Tænia nana*, or *Tænia Ægyptiaca*, otherwise called the dwarf or Egyptian tapeworm, may possibly also be found.

The Guinea worm being generally supposed to be introduced through some exposed part of the integument, the necessity of protecting the lower limbs and feet by good clothing is thereby indicated. The prevalence of skin diseases, particularly scabies, and of syphilis, is also mentioned. The latter disease, we understand, prevails in all the forms known in other countries. It is said to be particularly virulent in the plains, where phagedæna is a frequent accompaniment ; and, in combination with scrofula, aided by neglect of all hygienic measures, and by injudicious treatment, it commits sad ravages.

We have given merely a slight sketch of the most salient

points in this code of instructions, but sufficient to show the care which has been bestowed on their preparation, and the extensive nature of the sources of information as to a country hitherto little known which must have been consulted before their compilation. The concluding observations are so judicious and well expressed that full extract only can give them proper credit:—

"The object of the foregoing instructions has been to afford you some information gleaned from various sources, which, it is hoped, may hereafter prove accurate and useful; but many special and local circumstances will probably present themselves such as cannot be met and included within the scope of any instructions. They have, therefore, been drawn up in such a way as to leave you great liberty of action and an ample margin for the exercise of promptitude and judgment.

"It is to be understood, moreover, that these instructions are not intended to confer any authority for special or distinct action apart from the main object of the expedition; on the contrary, everything is to be made subsidiary to that consideration. You will, therefore, be ready to afford any assistance in your power, by advice or otherwise, to all concerned in the expedition; and in the general discharge of your duties you will endeavour to enlist the cordial co-operation of the executive and Medical branches of the service in promoting the common purpose you have in view—viz., the health and efficiency of the soldiers, and the success of the undertaking."

Although the time has not yet come when Medical officers of rank shall hold by right seats in councils of war, it must be admitted that the tendency of observations such as the above is to remove any objections which still exist to their doing so. It is evident that so long as military Medical officers are guided by such principles, there can be but little fear of their allowing personal feelings and aspirations for precedence in military rank—which is really incompatible with their true position—to interfere with the general welfare of the service.

In the letter of Staff Assistant-Surgeon A. Neill, to which we have already alluded, we find that in January and February the average temperature on the sea coast was 85°. During nine months the temperature on the coast averaged 90°, but one hundred miles inland, on high ground, only 65°. The heat of Abyssinia is not so great, or, at any rate, does not feel so oppressive, as at Aden.

The highlands are thickly wooded, and traversed by running streams of good water. Grass and other forage for cattle exist in abundance. Sheep and cattle thrive, and poultry are plentiful. Grain of all descriptions can be procured, but not in great quantity.

Wells in use are always kept closed after sunset by the natives, who have an idea that the water becomes a repository for the ova of insects, which develope into worms in the stomachs of those who drink it. While admitting the probable necessity for closing the wells, we must express a doubt as to the accuracy of the cause assigned for so doing. In some wells the water during autumn assumes poisonous or irritant properties, not removed by boiling, from becoming impregnated with certain principles from the leaves of plants hanging in it. The effects on the system are somewhat like colic, and often simulate cholera to a casual observer. A poisonous honey is sometimes found in the stems of a species of elm. It causes giddiness, flushing of the face, vomiting, and other symptoms of cerebral disturbance, resembling in some degree *coup de soleil*. The best remedy is to assist the vomiting by copious drinks of warm water, with an admixture of acsquicarbonate of soda. The poisonous properties of this honey are derived from the flowers of a variety of acacia or wattle, on which the bees feed.

From other authors we learn that honey of good quality is one of the standard products of the country, and is much used by the natives. A species of "lupin," of which the bees are very fond, imparts to it a bitter taste, but no poisonous properties. Taking advantage of this knowledge, when an Abyssinian has a grudge against a neighbour, he sows lupin seeds in his bee-fields, as did the sower of tares in the Parable.

Salt is so scarce, or rather its supply is so jealously limited as a means of revenue, that it assumes in some instances value as currency. One traveller tells us that he paid the natives on one occasion for services rendered with "ten pounds of *dirty salt*."

Those plagues of more civilised countries, bugs and fleas, are very numerous. It is thought that the light and porous nature of the wood used for all building and domestic purposes is particularly favourable to their development. The virtues of carbolic acid in warding off their attacks are strongly advocated by Mr. Calvert.

A species of senna grows plentifully. Its properties are well known to the natives, who, however, prefer a more vigorous and drastic purgative, derived from the root of a plant called "*Ezula*."

We need hardly remind our readers that Abyssinia is the home of kousso.

The longevity of the natives of Abyssinia has been mentioned by many travellers even to the present day.

The archæological investigations about to be carried on by Mr. Deutsch, selected for that purpose by the trustees of the British Museum, promise to be highly valuable and interesting. It is expected that the originals of the Greek, Ethiopic, and Himyaritic inscriptions, which have been copied by former travellers, may yet be found *in situ*. Some of these are considered to be of immense antiquity, and of very great importance as illustrations of sacred and profane history. It is also expected that many of the earlier Christian manuscripts and other antiquities may be discovered, as Abyssinia possesses one of the oldest Christian churches in the East. It would truly be a grand reward of our labour if any light should be thrown by such discoveries upon questions which for so many ages have furnished material for dogmatic statements and controversial disputes.

ABSOLON v. STATHAM.

The week has been marked by one of those trials against Professional men which seem an opprobrium and a reproach to the law, and are to us a warning against any giving way to feelings of kindness and charity. Our readers will recollect, without our going at all fully into details, the case of Absolon *v.* Statham. It first came to trial in November last year, and the jury were then discharged without having been able to agree to a verdict. Early in this year, a second attempt at a trial aborted by default of a jury, and it came on again on Tuesday, the 26th inst., lasted through that day and the 27th, and as we write, on the 28th, is still proceeding. The charge made by the plaintiff, Mrs. Absolon, was that Mr. Statham, who is Dentist to the Great Northern and the German Hospitals, did violently assault and maltreat her at the Great Northern Hospital on a certain day in August, 1864; that he with force administered chloroform to her against her will, and that he then, with great brutality and violence, extracted six of her teeth; that in order to effect this, he, among other things, seized her violently by the throat, and squeezed it so as to cause swelling of the glands and other serious injury of the throat; that it was malpractice to give her chloroform at all, and to extract the teeth which were extracted; and that, in consequence of his brutality and maltreatment, her constitution had been so injured that she has never since been able to earn a living.

We believe that, among all the unjust, false, and groundless charges brought against Medical men, there never was one more utterly groundless, false, and wicked than that brought against Mr. Statham. An accusation of brutal, motiveless violence brought against any dentist, especially any one acting at a public Hospital, would be discredited; but against Mr.

Statham, well known to be charitable and kind-hearted to a degree almost amounting to a fault, it is so monstrous and absurd as at first to excite only laughter, though, when the anxiety and misery caused by such a charge are thought of, the sense of its absurdity gives way to indignation and pain at the injustice so wrought—feelings shared in, it will be remembered, by Mr. Statham's Hospital patients as well as by the Profession. This first charge has utterly broken down on the trial. The charge of malpractice has also been, we think, entirely disproved, and we anticipate this time a triumphant verdict for the defendant; but it does appear to us that there must be some most grievous weakness and fault in the administration of the law to make it possible that such accusations should have been kept hanging over a man's head for three years, poisoning his peace of mind, and, by worry and anxiety, so seriously injuring his health that, as is, alas! the case with Mr. Statham, he is unable himself to appear in the witness-box.

Another, and secondary though very serious, grievance is the fact that, though in such cases the defendant may succeed in obtaining a verdict, he is almost certain to suffer great pecuniary losses, for it is almost invariably impossible for him to recover his costs. In the present instance Mr. Statham will, even in the event of his succeeding in his defence, have been mulcted, in fact, of a very heavy fine, amounting to many hundreds of pounds—a fine for defending himself against a grossly unjust charge.

Since writing the above the trial has come to an end—late in the afternoon of the 28th—and, as we anticipated, a verdict was given for the defendant on all the counts of the indictment. The jury, late in the afternoon of the second day, intimated their wish to hear no more evidence, but the counsel for the plaintiff refused to withdraw from the trial, and the case had to go on. The same counsel (Mr. Montague Chambers) made at the close a most powerful, passionate, and, to our unforensic mind, unscrupulous appeal to the feelings and judgment of the jury, but vainly; and, after an admirably plain and lucid summing-up by Lord Chief Justice Cockburn, the jury, with five minutes' consultation, gave their verdict.

We heartily congratulate Mr. Statham on the result, and trust that it may act as a powerful medicine to the restoration of his health and peace of mind.

We shall return to the subject next week.

THE WEEK.

TOPICS OF THE DAY.

The case of "Pearse v. Pearse and others," lately decided in the Court of Probate and Divorce, is a striking illustration of the value to legal inquiry which the very incertitude of Medical science may prove, provided that incertitude be frankly declared by a competent witness. The case was one of a solicitor who executed a will four or five years previously to his death. This will was disputed by his widow, who alleged that he was not of sound mind when he made it. The testator was acknowledged on all hands to have been insane during the last year and a half of his life. In proof of previous insanity it was urged on the part of the widow that at and before the time of executing the will the testator had been guilty of conduct towards her of so indescribably disgusting and cruel a character that the judge in summing up observed "that it was impossible to suppose that any decent woman, having ample opportunity of getting advice and assistance, should have submitted to such gross treatment." In confirmation of the alleged insanity, also, Medical evidence was called to prove that the testator had suffered from intense headache, and also that he had evinced great dislike to his wife. There could be no doubt that he had been on bad terms with her, and the will deprived her of all direct participation in his property. On the other hand, there was ample evidence to show that at the time of executing the will the testator was a leading partner in a legal firm of standing; that he conducted business requiring no ordinary mental power with skill and acuteness; and, in fact, that he discharged all the outward duties of life with propriety and intelligence. In this conflict of evidence, appeal was made to the post-mortem examination as likely to throw light upon the real duration of insanity. The examination of the head had revealed thickening of the skull, and the remains of chronic inflammation in the cerebral membranes. The question was, assuming their connexion with mental aberration, had these conditions been the products of one or two years' morbid action, or did they date their commencement from several years earlier? On this question, Dr. Guy's evidence was taken, and it was to the effect "that, although it was within the range of Medical science to judge from a post-mortem examination whether a mental disorder produced by brain disease was of long standing, he could not fix a minimum for its duration; still less could he state the date of its commencement within twelve or eighteen months." This evidence, which secured a pointed eulogium from the presiding Judge for its moderation and value, taken together with the ample proof given of the mental capacity of the testator in conducting his ordinary concerns, and the facts that neither by his wife nor by his wife's family at the time in question had he ever been treated as insane, and that, if her allegations were to be received, they implied forbearance—to use the mildest expression—simply incredible on her own part—decided the Court in pronouncing for the will. We should be glad if all Professional experts would remember the observation of Sir J. P. Wilde in reference to the evidence given by Dr. Guy in this case—"Nothing tended more to exalt the value of Medical testimony in courts of justice than a determination not to carry it too far."

Christ's College, Cambridge, has set an example, which we hope may hereafter bear fruit at both the Universities. Mr. John Peile has been re-elected to a Fellowship which he had forfeited by his marriage. It appears that in this College there is a statute which permits the re-election of a married Fellow *ob literas vel scientiam insignem*. We hope that some of the Oxford Colleges will follow suit, and especially that the Fellowships held by Medical men will not be kept much longer under the old monkish law. If one section of the public are in favour of celibate clergy, all are opposed to celibate Doctors. What a relief to the onerous duties of the Radcliffe Travelling Fellowship a honeymoon in Italy would be!

It seems from a question asked by Mr. Goschen, and answered by Mr. Sclater Booth, on Monday in the House of Commons, that the Poor law Board refuse to hold public inquiries into the condition of the Clifton and Bedminster Workhouse Infirmaries. The condition of these Infirmaries had been condemned by a Medical contemporary, and the guardians therefore asked for an inquiry. The Poor-law Board, however, seem to have evidence that the condition of both these houses is on the whole satisfactory, and they object to a repetition of the Farnham proceedings as both unnecessary and expensive. With regard to the Farnham inquiry, which is to be resumed on Monday next, we would warn our readers against taking the accounts which appear in the London daily papers as full reports of the evidence. From the local papers we find that much which would mitigate or explain away statements which have horrified the public has not appeared in the London papers. For instance, the Medical officer, Mr. Powell, now confesses that the account he gave Drs. Anstie and Stallard, of an epileptic patient being forced out of bed to empty the cesspool, had come to him merely by hearsay, and that he has since found that the report of the man having a fit on the morning he fell into the cesspool was untrue. In fact, it seems that the only means used to induce the unfortunate man to do the work was the promise of some extra beer. There are many other points which equally melt away in the cross-examination of Mr. Powell and the other witnesses, although there undoubtedly is a residuum unexplained.

But the evidence for the parochial authorities has not yet been heard, and all judgment therefore on the case should be at present suspended.

The letters read by Sir R. Murchison at the Geographical Society on Monday last, and the telegraphic despatch received by the Government through the Consul-General in Egypt to the effect that Dr. Livingstone was seen seven months ago at Marunga, to the west of Lake Tanganyika, have placed the question of his safety in a very different position. The native who brought the account recognised in a photograph of Livingstone the white man he had seen at Marunga. Sir Samuel Baker proposes an expedition through Egypt to meet Livingstone, and says that he should be very glad to join it, as his present inaction is worse than African fever.

Medical Practitioners who receive into their houses lunatic patients as residents ought by this time to have learned that they cannot legally do so without a licence from the Lunacy Commissioners. Mr. R. R. Robinson, of Newbury, has lately been charged with this offence against the lunacy laws, and although his defence was that the patient was placed under his care by her relations on account of her being the subject of epileptic fits, and not on account of her state of mind, Mr. Robinson has been committed by the magistrates who heard the case to take his trial at the next Berks Assizes. Bail, of course, was offered and accepted. The defence was supported by the family, who expressed themselves annoyed by the proceedings, and under great obligation to Mr. Robinson for his kind care of their relative.

At the request of the Zoological Society, the Treasury have appointed a zoologist to accompany the Abyssinian expedition. Lieutenant P. C. Beavan, of the Bengal Staff Corps, a distinguished Indian zoologist, has been recommended by the Society for the post, and they have voted him a grant of £200, to be spent in acquiring specimens of the larger mammals of Abyssinia for the Society's menagerie. His other expenses will be defrayed by Government.

The meeting of the St. Andrews Medical Graduates' Association will take place on Monday and Tuesday next, under the presidency of Dr. Richardson, who will deliver an inaugural address on Research in Medicine. Several scientific papers, of which we publish a list elsewhere, by well-known men, are promised. In addition, the meeting is intended to promote the political interests of the graduates, and to encourage social intercourse amongst them. We hope it will be a great success.

The authorities of Charing-cross Hospital have determined to attach to their charity a special department, under a separate Medical officer, for skin diseases. This is the most legitimate way of getting rid of the opprobrium of special Hospitals. We believe that Dr. Tilbury Fox is a candidate, and his labours in this particular department of pathology should give him a very strong claim upon the governing body. The chair of Physiology at the same Hospital, lately relinquished by Dr. M. Tonge, is vacant.

The case of Barnett v. Roberts, in which a Surgeon sued his landlord for damages for an assault, presented more Medical interest than arose from the circumstance of the profession of the plaintiff. The plaintiff's witnesses affirmed that he had been severely injured, and, in fact, his skull fractured, by the defendant. This view of the case was supported by Dr. Forbes Winslow and Mr. Erichsen. On the other hand, Mr. Partridge and Mr. Wood both affirmed that the alleged proof of the fracture was a natural depression in the plaintiff's skull, and that, beyond some periosteal inflammation, the plaintiff had sustained no serious injury. Mr. Wood demonstrated his view to the jury on certain skulls which were produced, and Mr. Partridge examined the plaintiff's head in court. As might be expected, where Doctors thus disagreed the jury could do no less, and, after a long absence, a message was sent to the court that they were quite unlikely to come to an agreement. However, they were told that they must try again, and at the time of our writing the verdict has not reached us. It would have been desirable, some may think, that the Doctors should have been submitted to a similar process before the commencement of the trial.

THE ADMIRALTY CIRCULAR.

In the long list of grievances of Naval Surgeons, the "paying-off" system has always stood foremost as the most crying evil to which they had to submit. The habit of paying off the hands of a ship, however excellent for Admiralty reasons, not infrequently tells with much severity on the young Assistant-Surgeon who has, perhaps, only joined the ship and invested in an expensive outfit a few months previously. Indeed, we have known one or two instances where the accident has happened twice within a short interval to an Assistant-Surgeon of limited means, and resulted in his contracting debts which compelled him to leave the service. It is, therefore, with much satisfaction we perceive that the authorities have taken a step—a little step, it is true—in the right direction to reduce this objectionable feature in the conditions of naval service. By a circular just issued, and which will come into effect on December 1, Surgeons and Assistant-Surgeons, as well as certain other officers, may, at their Lordships' discretion, be allowed, on the return from service on foreign stations, the full pay of their respective ranks for the following periods:—Over two and under three years, six weeks' full pay; over three and under four, seven weeks' full pay; over four years, eight weeks' full pay. The same to commence from the date of their being paid off, or of their return to England, as the case may be. Officers who are superseded for their own convenience, or who are compelled to leave the service through misconduct, etc., are deprived of this advantage. This exclusion, however, does not apply to officers invalided from effects of climate; in these special cases the Board may at its discretion grant leave of absence on full pay for a further period of a month. Their Lordships are certainly well disposed, but their new measure is but a grain of consolation in a veritable ocean of trouble.

INDIAN CIVIL SURGEONCIES.

The *Indian Medical Gazette* complains, and with some justice, of the new classification of the civil Surgeoncies under the direct control of the Foreign Office. It was anticipated that the new regulation which was published in the *Gazette of India* of September 12 would diminish the number of first-class Surgeoncies, but the result is even worse than was expected. It seems that only Indore and Rajpootana have been placed in the first rank, while Hyderabad has been degraded to the second class, along with Nipal, Meywar, Marwar, Jeypoor, and Bhurtpoor. This change is characterised by the *Indian Medical Gazette* as an unwise retrenchment, damaging alike to the political interests of the Government and to the welfare of the Profession. It thinks that every station in the British territories where there is a commissioner, as well as the head-quarter stations of the principal political agencies, should be made first-class civil Surgeoncies. This would give a fair number of prizes to the Indian Medical Service, and would, to some extent, compensate it for the loss it has sustained in being deprived of so many administrative appointments. Our contemporary expresses itself very strongly on this point, and urges the Medico-political argument in favour of its views. It is said that Medical men in the remoter Indian stations have material influence upon the tribes they come in contact with, and that this may be exercised and developed to the advantage of our Government. Whether this opinion be correct or not it is difficult to determine, but in any case it would seem as if the Profession in India received less consideration at the hands of the authorities than it is fairly entitled to demand.

EPILEPTICAL KLEPTOMANIA.

Will Dr. Maudsley, Dr. Forbes Winslow, or any other of our distinguished alienists, inform us as to the etiology of that singular affection which has been described as *epileptical kleptomania?* The malady is, we fear, one which is to some serious extent epidemic, and since those who suffer from it appear to be legally irresponsible as to the rights of "*meum et tuum*," it would be as well that some steps should be taken to clear the matter up. The two "respectably connected youths" who were convicted before Mr. Elliott of stealing from the stalls in the Crystal Palace were discharged with an admonition only, because the testimony showed them to be afflicted with this very remarkable disease. It is so much the fashion now to criticise the "justice's justice" of the magistrates' courts, that we feel disposed to be critical as to Mr. Elliott's procedure in the case. If these "respectably connected" youths were really the victims of a recognised malady, it is clear that they deserved rather the sympathy than the censure of the bench; but, of course, if *epileptical kleptomania* be a euphemism for petty larceny, it is equally clear that an admonition was a sentence of the most exquisitely kid-glove character. We are anxious to see this interesting point in mental pathology more clearly defined.

A ROOF FOR THE COSTERMONGERS.

The unnecessarily oppressive clause of the recent Streets Traffic Act which relates to the costermongers has been pretty generally commented on by the press, and we trust that good may come of the discussion which the subject has received. In the meantime, however, a suggestion which has been made by the *Daily News* deserves careful consideration. The *News* proposes that we should put a roof over the costermongers and hawkers, and build a wall round them. In simpler terms, it urges that a number of retail markets should be established in the districts in which street trading is now prevalent. The proposal seems to us an excellent one, as being calculated not only to meet the stringent legislative measures, but also, by facilitating official inspection, to prevent the sale of imperfect or improper food. The scheme is one which, we think, would readily be taken up, if some enterprising philanthropist would only give a practical form to the proposition, and put his shoulder to the wheel of organisation. The markets recently established by Miss Burdett Coutts in Bethnal-green are an excellent model for operations, and we hope they may soon be followed by others in the various thickly populated districts of the metropolis. There can be little doubt that as a mere speculation the erection of such markets could be made profitable, and we think that a "Retail Markets Company (Limited)" would find the scheme productive of success, both in its pecuniary and its philanthropic aspects.

CARBOLIC ACID AT MIDDLESEX HOSPITAL.

We exceedingly regret that, owing to the miscarriage of a letter, we were unable last week to say anything as to the use of carbolic acid at Middlesex Hospital, and this all the more as it was chiefly owing to the recommendation of Mr. De Morgan that carbolic acid was first brought before the Profession. In fact, Dr. Calvert brought the substance to the gentleman referred to before he had shown it to any other Hospital Surgeon. Since that time the acid has been in constant use in the Hospital by Mr. De Morgan, Mr. Nunn, and their colleagues. Carbolic acid has been used in the form of lotion, injection, and putty to a considerable extent by all the Surgeons, chiefly, however, by Mr. Nunn. The ordinary strength of the lotion is 1 in 40, the treble strength 1 in 13⅓; occasionally the pure acid dissolved with heat is employed. Two cases now in Hospital have been treated by the acid. The first patient, a male, came in, on September 30, with his right fibula fractured three inches above the malleolus; the inner malleolus was everted, and the foot partially dislocated backwards. The fracture was put up in splints. In a few days the skin over the bone became ulcerated; a collection of pus took place round the part, and an extensive abscess formed in the leg. A very free opening was made on November 1, and a quantity of pus escaped. The bones not meeting, and the patient's health giving way, an operation was proposed, and, under chloroform, a second free incision five inches long was made on the outside of the leg, and a portion of the fibula was removed. The wound was then thoroughly swabbed out with pure dissolved carbolic acid. On the following day the parts not thoroughly covered with an eschar were again touched up with pure acid. The patient says it did not pain him. The wound, which is very extensive, is looking well and clean, and the patient progressing. Another patient was admitted on November 15, with the right tibia and fibula fractured at the lower end, the tibia projecting two inches through the wound at the inner side of the ankle. The left tibia and fibula were fractured about two inches from the lower end, and a scalp wound was found at the back of the head. There was no collapse, and the pulse was good. Ordinary carbolic acid lotion was applied to the scalp, and spirit lotion to the left leg. Teale's operation was performed on the right leg, and pure carbolic acid applied to the flaps In the evening there was slight oozing from the stump, but it soon stopped. Next day the treble strength of lotion was used, with little or no pain. The wound now looks healthy. The following cases treated with carbolic acid are in, or just gone out of, the Hospital:—Specific ulcer of leg: Doing well. Necrosis of elbow-joint: Doing well. Necrosis of femur. Syphilitic ulceration of scalp. Cancer of face. Contused finger. Necrosis of phalanx. Strumous abscess of neck, under Lister's method: Result good. Necrosis of elbow-joint. Strumous ulcer of knee: No result. Scalp wound. Necrosis of tibia: No result. Two cases of ulcer of leg. As to those with no result marked against them, no fair opinion can be given as yet. In the cancer wards it is most extensively used for disinfection, being placed in little boxes on the pillow or below the bed. It is applied to all parts affected by cancer, and is found to keep the parts sweet; it does not pain, and often even relieves. The ordinary lotion is that generally used in cancer cases. It is found of especial use in cancer of the vagina. It is thought in these wards to be the best disinfectant. Mr. Henry Case, the Junior House-Surgeon, who attends to the Out-patient Department, speaks very highly of its use in many wounds, scalp or others, and has had especially good and radical results in ozæna. He uses it largely in suppurating wounds with good results.

THE GUILDFORD WATER SUPPLY.

At a recent meeting of the Guildford Local Board of Health, a resolution was passed thanking the Medical Department of the Privy Council for the very prompt manner in which the representations made as to the prevalence of typhoid fever were attended to. Our readers will remember that, in commenting on Dr. Buchanan's report last week, we referred particularly to the possible contamination of the wells by the direct admission of the water of the river, as there existed a communication said to be very rarely used, and *not to have been used at all during the present summer*. When we read that statement in Dr. Buchanan's report, we were very dubious about its *bona fides*. Human nature is frail, and forbidden pleasures having, it is said, a peculiar charm, it seemed hardly possible that the Water Company would retain a means of access to the river if they never meant to use it. It is now known, on the authority of the Clerk to the Local Board, that there is "a pipe leading from the mill-head by means of which the well (supplying the town) would be filled with river water." Furthermore it was said that the ordinary water of the well was very hard, and so,

for *three days* during each week, it had been the practice to turn the river water into it." It has now been resolved to cut off the communication between the well and the river. Better late than never.

CAMBRIDGE EDUCATION FOR MEDICAL STUDENTS.

It is a standing marvel that so few aspirants to the Medical Profession avail themselves of the munificent provision made for them at the great Universities. In the common track of Medical education, the student must pay at every step: for the scholarships founded at the various London Medical schools go a very short way towards the payment of expenses. The Medical curriculum is entered upon with a mind seldom stored with enough of classical, mathematical, and philosophical lore, and there is little social distinction connected with a common Medical qualification. Whereas at Cambridge a youth who obtains a scholarship is liberally supported; he undergoes a course of study calculated to insure liberality and exactness, the two great desiderata in Medicine; and he emerges from Cambridge to finish his studies in the Hospitals of London, in a position thoroughly to digest and appropriate the store of facts presented to him, and to take an equal place in any society in England. We are led to make these remarks by the sight of an account of the examinations to be held at Christ's College, Cambridge, on and after April 1 next, for a series of scholarships and exhibitions, which may well bring water into the mouth of a hard-working Practitioner blessed with one or more sons whom he hopes to bring up as his successors. We read of twelve scholarships of £70 a year each, six of £50, eleven of £30; six of various values from £20 to £50, destined for scholars from particular schools, but thrown open if no candidate from such schools is worthy; besides other benefactions, and all these at one College. And all these present good things, with potentiality of future eminence and wealth, to be had, not quite for nothing, but at the cost of passing a good examination. "Ay," says Paterfamilias Medicus, "there's the rub. I fear my son of 17 can't pass so stiff an ordeal." And why not, we ask, Mr. Paterfamilias? If not, is it not through your own fault? You know that from his birth you meant your son to succeed you in Physic. Why, then, have you neglected his education so? Why did you allow him to remain till he was ten years old in the hands of women who taught him bad French, and a string of geographical and historical names which he never understood, and forgot next year? Why did you send him afterwards to the care (?) of a monster who keeps a commercial academy, and taught Latin on a system of his own? Did you see that the boy when at school was well fed, well groomed, and well aired, so that the brain might work undisturbed by petty bodily discomforts? If you want your son to be a scholar at 17, you must begin early, and spare nothing. "But," says Paterfamilias, "what school can I send my son to that will make him a scholar at 17?" Ay, there's the rub again; but we shall have something more to say about this shortly.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

At the meeting of this Society on Tuesday evening a paper by Dr. Fuller, on the excretion of urea as an aid to the diagnosis of certain forms of dyspepsia, was read. Again the evil so much complained of was most unpleasantly manifest. It is not every one that is born or trained to be a good reader, and manuscripts are not all equally legible; but if papers are read so as to be practically unintelligible, a change of system is desirable. Why should not authors read their own productions? Dr. Fuller wished to point out that there were certain forms of dyspepsia accompanied and indicated by excessive excretion of urea. These symptoms were for the most part intermittent, but were readily reinduced by mental exertion, especially worry or sleeplessness. Several of the Fellows present had recognised the disease, but the most interesting portion of the debate which followed referred to the mode of estimating urea, it being pretty generally conceded that the plan of estimation by nitric acid, if not applied to the whole quantity of urine secreted in twenty-four hours, was most fallacious. The next paper to be read is by Dr. George Johnson, and refers to the circulation in the kidneys and certain other parts of the body. It is understood that the paper is one of great value, and Sir Thomas Watson is expected to take part in the discussion.

THE CLINICAL SOCIETY OF LONDON.

Another new society! Surely the Medico-Chirurgical and the Pathological are enough! Then there are the London Medical, the Harveian, the Hunterian, the Western Medical, the South London Medical, besides the Abernethian, the societies connected with separate Hospitals, the Junior Medical, and the societies representing distinct branches of the Profession, as the Obstetrical, Odontological, and Pharmaceutical. Such may be an echo of the groans which some of us may utter at the prospect of being compelled to leave our firesides one more evening in the month. But the *fiat* has gone forth—it is felt that there is a want, and that a new society may take up a new line of research without in the least trenching on the domain of the venerated Medico-Chirurgical, or of its precocious daughter the Pathological. The motto of the new Society ought to be *pondere, numero, mensurâ*. Whereas other societies treat of disease in the abstract, or deal with it on a large scale, this proposes to take the *items*, to study the details, and to apply the most exact modern numerical methods and processes of investigation to the estimation of the phenomena of individual cases, and of the results of Medical treatment. We subjoin a programme of the new Society, which held a preliminary meeting in Soho-square on Monday, and already numbers fifty members, including Sir Thomas Watson, Dr. Alderson, Sir W. Fergusson, Mr. Paget, Dr. Williams, Dr. Walshe, Dr. Gull, Dr. Jenner, Dr. Quain, Mr. Simon, Mr. Hilton, Sir H. Thompson, Mr. Erichsen, Dr. Peacock, Mr. Campbell De Morgan, Dr. Chambers, Dr. Sibson, Dr. Murchison, Dr. Radcliffe, Dr. H. Weber, Dr. Anstie, Dr. Hillier, Dr. Marcet, Dr. Greenhow, Dr. Burdon Sanderson, etc., etc. A meeting for the election of officers will be held in a fortnight, and the first ordinary meeting of the Society for receiving communications will be held on the second Friday in January. Members will be balloted for in the usual manner from that date; but meanwhile it is intended to go on adding to the numbers from among the more active clinical workers connected with recognised public institutions by invitation. It is expected that one of the most honoured and venerable members of the Profession will be the first President.

The Clinical Society of London is instituted for the cultivation and promotion of the study of Practical Medicine and Surgery, by the collection of reports of cases of interest, especially of such as bear upon undetermined questions in Pathology or Therapeutics. Meetings will be held by the Society periodically for the purpose of receiving communications, which shall be of one of the two following classes—1. Cases of which the records are complete; 2. Cases still under observation. As regards communications of the *first* class, a written report of the case or cases must be forwarded to one of the Secretaries a week before the meeting at which the communication is intended to be made. The report of each case must comprise—(*a*) A complete record of the state of the patient when first observed, investigated according to the most approved clinical methods. (*b*) A statement of the family and personal Medical history of the patient, including a narrative of the present illness previous to the patient's coming under observation. (*c*) A record of the state of the patient when last seen; or, in fatal cases, a record of the post-mortem examination, together with an abstract of the progress and treatment of the case since first observed. As regards communications of the *second* class, a brief statement of the principal facts of the case shall be furnished in writing to one

of the Secretaries before the day of the meeting at which it is proposed to be communicated to the Society. If it appear expedient with reference to communications of this class, a committee of one or more members may be nominated by the President, with the consent of the person making the communication, to co-operate with him in investigating the case. Every communication shall conclude with explanatory remarks by the author, and, wherever it be possible, the facts recorded should be demonstrated by the exhibition either of the patient, or of photographs, drawings, or casts, and also by microscopical and chemical analyses.

THE COURSE AND EFFECTS OF SYPHILIS WHEN UNTREATED BY ANY REMEDIES.

We have reason to believe that the papers which have appeared from time to time in this journal have done something towards advancing the knowledge of syphilitic diseases in this country; and we take an opportunity of stating afresh, in a concise way, what we have already endeavoured to inculcate. While mercurialists and non-mercurialists have ranged themselves in two opposing factions, and have been energetically arguing their respective claims and advancing their own line of facts, it would almost seem as if one important matter had been well nigh lost sight of altogether. Syphilis is a disease depending upon the evolution and development of a specific blood poison, and, like all the other diseases with which it is in these respects allied, it is liable to great variety in the severity and character of its morbid manifestations. Nobody is likely to deny this with regard to small-pox and scarlatina, for example. In these disorders such differences are everywhere recognised, and we accordingly speak of any given case as simple, benign, or malignant, according to the severity or otherwise of its symptoms. Those who have enjoyed the largest field for the observation of syphilitic disorders, and who have had the best opportunities for watching the natural evolution of that disease, cannot avoid perceiving that we want less of statement and more of results impartially drawn from a series of comparative observations. A great deal of hasty generalisation would then be swept away, and we should not have men confounding the natural products of a severe type of syphilis with those artificially induced processes resulting from mercury. It cannot be too strongly urged that syphilis tends to run a pretty regular and definite course, and that great differences exist in the severity of the manifestations in different cases, irrespective of drugs—specific or otherwise—that the milder forms of the disorder frequently recover under all plans of treatment; that some cases—where there is no auch disturbing element present as mercury to accuse as the cause—are extremely severe, and a few even die from pure ayphilis or of the asthenia induced by that disease; and lastly, that it seems to be practically pretty well settled that mercury, on the whole, is, nevertheless, the most reliable agent we possess for its treatment. While we quite agree with those who think that mercury is capable of exerting a baneful influence in some constitutions, and in certain forms, stages, and variations of this disease, and while we would extend the most ample field for liberty of action, and regard scepticism in all matters not yet proved as the first step towards getting them proved, we do not consider extravagant statements, advanced by advocates on one side or the other, calculated to lead to any good, and least of all to the good of science. It was fortunate for one individual who, disbelieving in such a thing as syphilis at all, and for a great number who refer all the worst forms of it to the drugs employed, that some of the members of the late Admiralty Commission, we learn, had the opportunity of seeing a soldier patient in whom the constitutional effects of syphilis were so formidable that he died of that disease within six months of contracting the primary lesion; and in that case, at any rate, no mercury whatever had been exhibited. We gather some important facts from Dr. Paynter'a report on the French troops serving in Algeria bearing on this subject of the effects observed in the natural evolution of the disease. The paper is to be found in the sanitary section of the new Army Medical Blue-book. Dr. Paynter says that among the native Arab population ayphilis is the only really prevalent disease. both in the towns and in the country districts. As a general rule these people never seek any advice or treatment; and one meets with most dreadful objects suffering from the malady in its various forms. Extensive disease of the bones, where no kind of treatment had been at any time adopted, is frequently met with amidst these people. The appearance of some of the sufferers, even to those accustomed to witness disease, is described as most revolting. One French army Surgeon had seen a native woman, the bones of whose face had been completely ulcerated away by the disease now under consideration. She had never received any treatment whatever, either for the primary or other stages of the affection. Where these native people first contracted this disease, or how it was introduced among them, it is difficult to form any idea; but it is quite evident that it exists to a most lamentable extent, and may, with other causes too numerous and varied to define, eventually and at no distant period, exterminate the subdued tribes from the face of this most beautiful country.

THE PRISONS OF INDIA.

A report on the gaols of the lower provinces of the Bengal Presidency for the years 1866-7, by Dr. F. J. Mouat, Inspector-General, has come to hand too late to admit of as ample a notice as the valuable matter it contains would warrant. Not the least peculiar feature of the report is that it affords a practical illustration of the amount of serviceable talent suffered to lie fallow in our English prisons, which, under a judicious system of administration, might he made subservient to national uses. It was printed at the Alipore Gaol Press, by convicts trained under the superintendence of the chief officer, and is a most creditable specimen of typographical arrangement. Dr. Mouat expresses a doubt if there is another prison in the whole world in which such a work could have been accomplished in an equally short space of time and with like excellence, and, so far as our own experience of prison management enables us to judge, we fully concur in that opinion. Dr. Mouat enters very largely into statistics, particularly those relating to sickness and disease among the prisoners, and he deals some very hard blows against the Bengal Sanitary Commission in matters of considerable scientific interest. We hope to find space for an early analysis of the report.

FROM ABROAD.—SIGNOR BORELLI'S MEDIAN LITHOTOMY.

M. Borelli, the celebrated Surgeon of Turin, has, during his visit to Paris, imitated the example of Professor Vanzetti, and laid some of the results of his practice before the Surgical Society of that city. Among these is his plan of performing median lithotomy. He passes a grooved catheter into the bladder, and presses it from within outwards, so as to cause it to project towards the perineum. Instead of then dividing the tissues layer by layer, M. Borelli traverses them all at a single thrust with a long bistoury, having a narrow blade so as at once to reach the groove in the catheter, taking care not to wound the bulb of the urethra. Dividing the tissues with the point of the instrument to an extent sufficient for the admission of the finger, he dilates the wound by its aid to admit the forceps, and, seizing the stone, employs the necessary degree of force to insure its extraction. This practice M. Borelli declares that he has found successful, but in the Society it was received with universal reprobation. M. Verneuil, who interpreted the author's views with his usual ability, could not approve of it, preferring very much his own practice of combining lithotrity with median lithotomy, which avoids completely the violence to the parts concerned that is done in the extraction of large calculi by lithotomy alone. M. Giraldès defies the Italian Surgeon to

avoid injuring the bulb when practising his "simple, safe, and brilliant" operation. All Surgeons who have performed the median operation know the difficulty there is to avoid this, even when operating with everything exposed, while incising the tissues of the perineum layer by layer. Still greater must this be the case while operating in the dark; and in Surgery we should look very shy at these brilliant operations, where brilliancy is always obtained at the prejudice of safety—true *coups de théâtre* always executed at the expense of the patients. M. A. Guérin has frequently experienced in the adult, as M. Giraldès has in the child, how difficult it is to avoid wounding the bulb in perineal cystotomy, and in his opinion it is so injured in nine times out of ten. To attempt penetrating into the bladder in this way by a single thrust, is to insure its injury; and, for his own part, M. Guérin finds careful dissection necessary to avoid it. As to the second stage of the operation, consisting in extending the small incision by traction, there is nothing new in it, for the English Surgeons have long been in the habit of penetrating into the bladder through a small incision in the prostate, and, having introduced the gorget, enlarging the aperture without employing the lithotome as is done in France. The question is, which is the best procedure? For his part, M. Guérin prefers the French plan as more precise and less dangerous, incising as it does, and not lacerating. M. Giraldès observed that the English Surgeons of the present day do not employ the gorget; they make the incision with a bistoury, introduce the finger, and guide the forceps along this. M. Guérin did not wish to comment upon the modes of operating observed by the English Surgeons, but only to state the difference characterising the English and French procedure—the former consisting in the dilatation of a small wound of the bladder, and the latter in an incision made at first sufficiently large to admit of the passage of the stone. This last is preferable, for it is better to cut than to tear. M. Chassaignac cannot approve of M. Borelli's procedure, which makes a mere button-hole aperture, to be afterwards dilated; but, unless we have divided the neck of the bladder, we are never certain of being able to pass an instrument into it, thrusting it against the neck or astray, lacerating the tissues, and giving rise to great perils. The external incision should be of considerable size, and it is in operations where it is insufficient that fatal urinary infiltrations are especially met with. One of the greatest obstacles to the success of lithotomy, too, is making an insufficient aperture in the neck of the bladder, the tissues during the extraction becoming lacerated to a dangerous extent. The bulb may be usually avoided by dissecting layer by layer, as its bluish colour renders it visible; but in the procedure now brought forward it must almost necessarily be injured, at the risk of producing hæmorrhage difficult to control. M. Demarquay is no less severe on the Turin Surgeon's method, for we cannot, he observes, take too great precautions in our dissection when seeking to arrive at the bladder from the perineum, owing to the danger of injuring important parts. He believes that median lithotomy can only be profitably employed on young persons and when the calculi are not large. In the aged the tissues have lost their suppleness and dilatability, so that calculi, when a little large, cannot pass without exposing the edges of the wound of the bladder to laceration.

POST HOC, ERGO PROPTER HOC.—An American paper is responsible for the following illustration of a too common mode of arriving at an induction:—"Mrs. Margaret Carr, of Pittsburg, Pennsylvania, bought a black cat for the purpose of taking three drops of blood from it to be administered to a grandchild suffering from croup. Thereupon her neighbours raised a tumult, charging her with witchcraft, and she was obliged to call upon the authorities for protection. Mr. William Owens, her lawyer, brought twenty witnesses to prove that the child recovered the moment the dose of blood was administered."

INTRODUCTORY LECTURE AT THE GRESHAM COLLEGE.

THE new Gresham Professor of Medicine, Dr. E. Symes Thompson, delivered the Inaugural Lecture, on "The Preservation of Health," in the Theatre of Gresham College, on Wednesday, November 6. He said:—In commencing this course of lectures it is natural to say a few words, by way of introduction, about the character and aims of the founder of the College. Sir Thomas Gresham was born in 1519. He distinguished himself much at Cambridge, but, having a bias for commerce, devoted all his energies to mercantile pursuits, and became the richest commoner in England. With his help and advice Queen Elizabeth extricated herself from financial difficulties by raising the first loan on the London market. He established the English credit, which had previously been very low in foreign countries, and he built the Royal Exchange. His naturally powerful and vigorous mind was strengthened and enlarged by intercourse with the ablest men on the Continent; and it was in France that he became acquainted with Fernelius, a Physician of pre-eminent talent at the court of Charles IX. It was due to his influence that Sir T. Gresham so fully appreciated the importance and value of Medical knowledge, and it is ordained in his will that the Professors of Physic at Gresham College should follow the method of Fernelius: "1st, Physiology (or a knowledge of the functions of the body in health); 2nd, Pathology (or a knowledge of the changes in the body caused by or resulting in disease); and last, Therapeutics (or the art of restoring health and banishing disease), whereby the body of the said science may be better imprinted on the studious auditors rather than be disjointed and delivered out of order by exposition of some part of Galen or Hippocrates."

No doubt, in the year 1575, when Medical schools had no existence in London, the founder's object in establishing a Professorship of Medicine was primarily to teach Physicians; but, now that this object is more than fulfilled by other foundations, we have authority in the terms of the will for adapting the lectures to the needs of the general public. "The founder," saith the ancient MS., "seemeth to have special respect to the benefit of citizens." "Every man for his health's sake will desire to have some knowledge in the art of Physic."

Sir Thomas Gresham founded the College in London, because he felt that the centre of commerce should also be a centre of learning. The London University carries out his idea in part; but much is still left to be done for "the benefit of the citizens," and in my special branch there are broad questions and important facts of sanitary reform which, besides being peculiarly important to dwellers in a crowded city, must first be thoroughly known in the great centre of thought and life before they can spread through the whole land and bear fruit in the improved health and increased vigour of our national body, mind, and soul.

I have taken "the Preservation of Health" as my subject for two reasons—first, because it would be impossible in a course of lectures, however carefully prepared and attended, to teach anyone how to cure disease; and secondly, because I am profoundly convinced that knowledge of health laws, common sense, and self control would prevent an immense majority of the illnesses which it is so difficult to cure. Medicine, not being an exact science, cannot be taught by aphorisms. Professional skill cannot be transmitted; it can only be acquired by the bedside. The successful Physician, in dealing with disease, may have learnt how to hit, but he can only teach how to aim.

We every day see people suffering pain of every kind, and growing daily more unfit for work, because they do not know, do not believe, or will not observe, the simplest laws of health and life. There are very few diseases which attack people without any fault of their own, but, speaking generally, disease is due to ignorance, carelessness, and want of self-control. It is right to take care of our health, because good health is the most important aid to vigour, courage, energy, and success in life, and because feeble health prepares the way to every kind of evil and failure both of body and mind.

How often we meet with men whose health is not equal to the position for which their mental attainments entitle them! Some men, if they had but good physique, would rise to the highest positions; others who have the physique, the bodily

health, rise to the highest positions, though their mental powers are very inferior.

It is not Utopian to say that *every one* might preserve his healthfulness and youthfulness of mind and body through life if he realised how he ought to live, what he ought to do, and what to leave undone. Men, and women too, *might* remain vigorous and vivacious, equal to the emergencies of life, and ready bravely to face its trials, with the "childheart" not "withered," but "grown into the man's."

The great mass of the people of London have fallen into a low feeble condition, which, though perhaps it is not disease, is not *health*. It is a low state of vitality, of physical power, of mental energy, and even of moral strength. Ability to cope with and surmount obstacles — the characteristic of the Englishman—cannot exist without a firmer and more sturdy and stalwart development than can be acquired in a damp cellar on a diet of bread and tea!

Many of the causes of this low health in our great towns are capable of removal, and it is the duty of sanitary teachers to preach against those great sins against the laws of health and life which surround us, until the obstructiveness and ignorance, the false economy and wrong-headedness of landlords and vestries, is, by the force of enlightened public opinion, at length overcome. What we desire for England is a race of Englishmen, not of poor, puny, wizened creatures, dragging on a miserable half-existence, but men and women with vitality, with energy, and good British "pluck."

English people, who talk so much about the "liberty of the subject," will not submit to have their liberties infringed to save their lives. We must strive to bend their wills in the right direction by instructing their minds, and to banish the vicious practices, not by police regulations, but by raising the general tone of thought and life.

I venture to hope that I may be able in these lectures to give a few hints to some of those in this city who, with an earnest desire to do their duty, are prevented from taking an active part in helping their neighbours by the press of business, but who would be sanitary reformers if they had time to wade through and master blue books and reports of commissions and nuisance inspectors. The philosopher will not condescend to come down from the heights to adapt his learning to the common-place needs of common-sense men, and thus a race of middle men is required between great authors and the public, whose duty it is to put the elaborate and laborious productions of the great thinkers and workers into a readily assimilated form, suitable for rapid consumption. This function devolves on reviewers and journalists, and to some extent also upon the popular lecturer. This I believe to be the duty of the Gresham Professor of Physic. He is not himself bound to penetrate into new and undiscovered fields, but to describe, "for the benefit of the citizens," the lands lately surveyed by the pioneers of truth; to give "every man for his health's sake" some plain ideas of those sanitary facts which, though admitted by Medical men, are not yet realised by the world. The following lectures in the present course will be on pure air and pure water, as necessary for the preservation of health. In future courses I hope to take up other questions of equal importance, and even to deal with some upon which the Professional mind is not yet fully made up. I hope periodically to give a comprehensive digest of the advances made in sanitary science, based on the Reports of the Medical Officers to the Privy Council, the Medical Officers of Health, and the Poor-law authorities, and to show you the general state of health, the advance of epidemics, and so on, from the Registrar-General's and the local health and mortality reports. I shall treat also of regimen and diet, of the training and clothing of the body, and of the training and culture of the mind. And then I shall speak of some of the most common ills of body and mind; thus gradually leading you from the most simple to some of the more complex problems of Medical science. The lecturer then enlarged on the laws of health, on what healthy life is, and on the paramount necessity of the observance of intelligent common-sense rules of clothing, diet, regimen, exercise, and rest. He concluded by saying:—I trust I have shown you the truth of the principles which I postulated as the laws of a healthy life—principles deep-rooted in the foundations of the universe, but extending their ramifications over every fibre of our being, and developing, according as they are obeyed or neglected, into a tree of life, making this world a Paradise, or into a very upas tree, to poison and destroy.

> "There are more things in heaven and earth, Horatio,
> Than are dreamt of in your philosophy."

But these things all affect our life and health, and they are to be discovered and applied by careful obedience to the things already known. You may depend upon it that it is only possible to a common man to live by incessantly fulfilling the most wonderful functions according to the profoundest laws; it is only possible for us to live healthily in time by obeying eternal laws; it is only possible for the creature happily to walk the earth by fulfilling the eternal ordinances of the Creator.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

Delivered at the Museum of Natural History, Paris.

(Continued from page 548)

We now come to the second part of the subject. Having determined as far as we can what portions of the cord serve as organs of transmission, we have now to consider whether the transmission is direct or crossed. From the time of Galen to the last few years, it has been universally admitted that the transmission of *centrifugal* or *motor* impressions followed a direct course; and, although some experiments of Brown-Séquard (who as early as 1847 published his discovery that there is a decussation of the conductors of sensitive impressions to the cord) and of Schiff were not in accordance with the general view, it was not till Van Kempen, in 1859, published his memoir "On the Transmission of Sensibility and Motion in the Spinal Cord," in which he proved from experiments on frogs, birds, and mammals, that the transmission of motor influences is direct in the dorsal and lumbar regions, but in part crossed in the cervical region, that the subject excited much interest amongst physiologists. The experiments of M. Vulpian on dogs fully confirm the accuracy of those made by Van Kempen.

After describing the mode of preparing a dog for experiment by separating the two anterior columns from one another for a certain length (see pp. 385-6), he adds:—"Let us now pinch one of the anterior columns near its free extremity. It is clear that if there were no decussation we should only obtain movement in the limb of the same side; but in point of fact, while there is considerable motion in the limb corresponding to the excited column, there is also slight movement excited in the other limb. I have often repeated this experiment, and always with the same results. There is a partial crossed transmission of motor impressions. Anatomy and physiology are thus in accordance, for there is a decussation of a part of the anterior columns through the whole length of the cord, while the portion which follows a direct course far exceeds that which decussates. The decussation which is so obvious in the anterior pyramids is merely, as it were, the beginning of what takes place in a less marked form through the whole cord. We appear, then, to be authorised to conclude that the transmission of motor excitations for the most part takes place directly throughout the whole length of the cord, but also partly crossways; and that this crossing or decussation, since it occurs through the whole length, must doubtless be an arrangement of considerable importance."—P. 386.

We now proceed to consider whether *centripetal* or *sensitive* impressions follow a direct or a crossed course; but if we felt assured that most of our readers were as familiar as they should be with the views of Brown-Séquard, as published in his "Physiology of the Nervous System" (1860), we might omit all reference to this subject. This physiologist ascertained that after a lateral half of the cord had been transversely divided in the lower part of the dorsal region, the sensibility seems to be much increased in the posterior limb on the side of the section, while it seems to be lost or extremely diminished in the posterior limb on the opposite side. These results have been attacked by Chauveau, Von Bezold, and others; but it is generally agreed that their objections have been completely refuted by Brown Séquard, who has further shown that the phenomena of *hyperæsthesia* which follow the semi-division of the cord may also be induced by the division of simply a single posterior column, and that not only is hyperæsthesia thus induced throughout the whole extent of the hind leg of the corresponding side, but also that at the same time there is a diminution of sensibility in the limb of the opposite side. M. Vulpian, who has repeated these experiments and confirms his results, regards them as demonstrating that there is a sort of physiological balance between the two

sides of the cord, the hyperæsthesia produced by the irritation of one side being accompanied by anæsthesia of the opposite side. The hyperæsthesia induced by lesions of the cord is usually accompanied by a very distinct exaltation of the reflex excitability of the parts of the cord lying behind the seat of the injury, and these two concomitant phenomena may doubtless be referred to one and the same cause. No experiments that have been made tend to prove that there is a complete decussation between the elements charged with transmitting sensitive impressions from the two sides of the body, and some physiologists hold that the decussation does not at most exceed that of the anterior columns. In whatever part the lateral section is made, we do not usually obtain complete anæsthesia of the opposite limb, even when the knife assuredly passes into the opposite side of the cord. M. Vulpian has satisfied himself of the correctness of this statement by numerous experiments on dogs.

Our author, in accordance with Brown-Séquard and most of the leading modern anatomists, believes that centripetal or sensory impressions are propagated along the cord by means of the grey substance. "The impression may pass almost indifferently along one half or the other, and probably along both at once; and whenever the route is stopped in one half, the impression is propagated along the other. An impression may thus pass over two obstacles occasioned by two semi-divisions of the cord on opposite sides, provided there is a certain distance between the sections. If we divide the right half of the spinal cord of a frog in front of the origin of the nerves which supply the hind legs, and then divide the left half a little behind the point from which the brachial nerves proceed, and if we then pinch the fingers of the left fore limb, we induce, as you see [the experiment is being performed before the class], contraction of all the limbs, including the right hind leg. If we now pinch the last-named limb, you observe that movement is produced in all the limbs. The result may be rendered still more manifest if we first poison the animal by strychnine, since the transmission of the irritation can then only be propagated by the spinal cord. This experiment is of extreme importance in reference to the transmission of sensitive impressions along the cord. It is clear that if the decussation of the centripetal fibres were complete, or nearly complete, two semi-divisions on opposite sides, and at a certain distance from one another, would inevitably stop all propagation of peripheral irritations from the posterior part of the cord towards its anterior part." (Pp. 390-1.) After noticing the similar experiments of Van Deen and Brown-Séquard, he proceeds to describe an experiment on a dog, in which a long interval was left between the semi-divisions of the cord—one section being made in the posterior part of the dorsal region, while the other was made in the region of the third cervical vertebra. The first division, made on the right side of the dorsal region, occasioned hyperæsthesia in the right hind leg, and possibly slight diminution of sensibility in the left hind leg. On making the second semi-division a few hours afterwards on the left side of the cervical region, the hyperæsthesia in the right hind leg disappeared, and a very obvious increase of sensibility was almost immediately observed in the left fore leg. The point most worthy of notice is that both hind legs remain very distinctly sensible after this double operation. Hence he concludes, as from the experiment on the frog, that the decussation of the elements charged with the transmission of sensitive impressions is very incomplete, if, indeed, it exists at all; and that (as Stilling and other physiologists believe) there is no special route for the transmissions, which make their way through the grey matter in all directions—the only necessary condition being that the continuity of this substance is at no part entirely interrupted.

We have thus endeavoured, in as succinct a form as the difficulties of the subject permit, to lay before our readers the most recent views regarding the spinal cord considered as an organ of transmission. In our next article we shall enter more deeply into the physiology of this organ, and shall consider the function which it discharges as a nervous centre.

TABULAR SUMMARY OF THE RESULTS OF DR. DUPRÉ'S ANALYSIS OF WINES TO DETERMINE THE QUANTITY OF COMPOUND ETHERS.

(*Compiled from the Journal of the Chemical Society.*)

	Rauenthaler, 1864, 15s. p. doz	Rauenthaler, 1862, 54s. per doz.	Hattenheimer, 1862, 40s. per doz.	Steinberg Cabinet, 1858, 120s. per doz.	Light Claret, 1865, 15s. per doz.	Cape Wine, 18s. per doz.	Port, 1864.
Alcohol, per cent. by weight	7·44	8·83	9·97	9 74	9·05	24·1	18·56
Total fixed acid calculated as tartaric per cent.	0·674	0·445	0·525	0·4113	0·338	0·2244	0·3075
Total free volatile acid calculated as acetic acid	0·118	0·178	0·067	0·1305	0·222	0·1470	0·0840
Total dry residue	2·207	1·867	2·235	2·073	2·167	6·18	7·305
Sugar	traces	0·062	0·017	none	0·047	2·88	4·905
Alcohol in volatile ethers	0·0174	0·02392	0·0253	0·02944	0·0170	0·03348	0·01288
Alcohol in fixed ethers	0·0256	0·0218	0·0201	0·0234	0·0144	0·0292	0 030176
Total alcohol in ethers found	0·0431	0·04572	0·0454	0·0528	0·03140	0·0627	0·043056

GENERAL CORRESPONDENCE.

CONTAGION IN PHTHISIS.

LETTER FROM DR. LEARED.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the discussion on the mode of propagation of phthisis excited by Dr. Wm. Budd's remarkable letter, no statistical evidence has been adduced. I may be allowed, therefore, to refer to an analysis of 136 cases of phthisis published by myself in your journal under date October 11, 1856. Amongst other things, the real or apparent causes of the disease received special attention. One cause, so far as I know investigated for the first time by this method, was contagion. I must refer to my paper for the table in which this matter is set forth. It will suffice to say here that diligent inquiries yielded colourable support to the contagion theory in so limited a number of cases as to admit of these cases being explained on the principle of coincidence. The remarks made upon the table may be here reproduced:—"From this it is seen that only 3 males and 4 females, total 7, out of 136 cases, or 5·14 per cent., afforded any evidence of the action of contagion. Moreover, it is precisely in the four cases in which contagion might be most forcibly maintained on account of the time the disease commenced that evidence of hereditary transmission appears. When, in addition, it is considered that persons living under the same roof are rendered liable to the same diseases from the same hygienic causes, the operation of contagion in the phthisis of this country must be regarded as altogether unimportant, if, indeed, it exists at all."

Nearly every one who has given this subject attention is completely opposed to Dr. Budd in this matter. One, therefore, looks with much interest for the publication of the facts upon which he rests his opinions, which will, no doubt, be maintained with his well-known ability.

I am, &c. ARTHUR LEARED.

Old Burlington-street, November 18.

LAWSON'S CLASS MICROSCOPE.

LETTER FROM DR. LAWSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read Mr. Matthews's letter on the above subject, in which the writer states that he has anticipated the microscope constructed for me by Mr. Collins, I beg to give that statement the most unequivocal contradiction. Not only

has Mr. Matthews not contrived an instrument which answers the purposes for which mine was devised, but he has not published an account of his microscope in any work or periodical devoted to microscopy with which I am acquainted. The idea of such a combination as that suggested by me and carried out by Mr. Collins, is one which might easily have occurred to any one interested in its application, but that it escaped Mr. Matthews will be evident to those of your readers who compare the representations of the two instruments. The advantage of my microscope is this: it can be employed as an ordinary working instrument, and as a Beale's *clinical* microscope, according as the teacher desires. I lay particular stress on the word *clinical*, because this form of Dr. Beale's microscope is the only one which can be used in passing a specimen round a class, since it alone possesses a lamp for illuminating the object. Dr. Beale's ordinary hand microscope has no lamp, and cannot, therefore, be used in classes, unless the day be exceedingly bright or very low powers are employed. It is this latter instrument which Mr. Matthews has adapted to a stand. How creditable it may be to Mr. Matthews to have hit upon this combination I do not undertake to determine. This much, however, I do affirm: Mr. Matthews's microscope would be absolutely useless for the purposes for which the instrument devised by me is used in my laboratory at St. Mary's Hospital. I am, &c.

Henry Lawson, M.D.,
Lecturer on Histology in St. Mary's Hospital.

THE PROPERT MEMORIAL.

Letter from Mr. W. A. N. Catlin

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with interest letters which have been published from time to time in the Medical journals, the authors of which propose that a memorial should be raised at the Royal Medical Benevolent College in acknowledgment of the great benefits which were conferred upon the Medical Profession by the late Mr. Propert. Many who will agree with the proposition will differ as to the best mode of carrying it out, and on this account I venture to offer a few suggestions.

It will be remembered that after the death of the late Prince Consort the Council of the College proposed to raise to his memory new buildings to be called the "Albert Wing," and their useful design was soon carried out by liberal public subscriptions. Under the same auspices might not a "Propert Wing" be raised in the same manner in memory of the benevolent founder of the College for the special accommodation of lay scholars? Some time ago the Council introduced new rules for the admission of lay scholars, the profits arising from which go to the "Exhibition and Scholarship Fund;" but although it is admitted on all sides that class education is a bad system, every boarder now at the College is the son of a Medical man. Against this system the head-master has protested, yet under the Charter the Council has not the power to take a single lay scholar so long as there is one Medical candidate for admission. If then a "Propert Wing" could be built by public funds specially subscribed to afford accommodation to lay scholars, the pernicious system of class education would be annihilated, the charge for Medical scholars would be reduced, the Scholarship Fund would be augmented, and a noble memorial would be raised to perpetuate the name of the generous founder of the Royal Medical Benevolent College. I am, &c.

W. A. N. Catlin.

Westfield Lodge, Brighton, November.

THE SEASONAL PREVALENCE OF CHOLERA IN INDIA.

Letter from Mr. W. R. Cornish.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the interesting communication from Dr. John Macpherson published in the last number of your journal it is remarked that "it would be desirable to have complete returns (of cholera mortality) extending over a considerable series of years for Madras or some station near it;" and further on that the returns for the town of Madras "extend over but a very few years."

Now, in point of fact, the mortuary statistics of the town of Madras (which has an assumed population of half a million) have been regularly collected and tabulated from the beginning of the year 1855 to the present time, a period of nearly thirteen years. The returns for the earlier years are, perhaps, not very trustworthy, the information being collected entirely under the orders of the municipal authorities. The returns from 1855 to 1858 were tabulated under the immediate superintendence of Dr. Lorimer, my predecessor in office. From that date to the end of 1865 the duty of collecting and publishing the mortuary returns was entirely under my own direction. Subsequently to the latter date the work has been carried on under the direction of the Sanitary Commission of the Madras Presidency. With regard to these, and, indeed, all other statistics relating to the population of India, there is this to be said, that they are not wholly reliable. There is at present no law by which the people are obliged to register the deaths or births in their families.

The information as regards the causes of death is collected at the various sites of incremation or interment, and brought in daily by the several officers whose duty it is to visit the various burial-grounds to collect the certificates. In the earlier period of registration, I have no doubt that many deaths escaped notice, for I found that the town of Madras contained about 300 different burial or burning grounds, and that many of these, being private family grounds, were never visited by the district registrars. Of late years, however, the municipal authorities have succeeded in closing nearly the whole of these semi-private intra-mural establishments, and the registration as regards number may be regarded as approximately true, though in the mode of recording the "cause of death," I need scarcely say that there is still room for greater accuracy. Cholera is unfortunately a disease so well known, and so easily recognised by the people, that the deaths returned under this heading may be accepted for all practical purposes, in tracing the history of epidemics, as correct.

With your permission, I will, in a future communication, supply from the Madras mortuary reports the information desired by Dr. Macpherson, and offer a few remarks on the subject of the influence of high temperature in predisposing to outbreaks of cholera. I am, &c.

William Robert Cornish,
Surgeon, Madras Army, Secretary and Statistical Officer Madras Medical Department.

95, Park-street, Grosvenor-square, W.
November 27.

EXCISION OF THE SPLEEN.

Letter from Dr. John Beddoe.

[To the Editor of the Medical Times and Gazette.]

Sir,—I perceive that Mr. Bryant has added another to the cases of excision of the spleen which he and Mr. Spencer Wells have published. In this connexion what I am about to say may prove interesting, though I cannot flatter myself that it will be useful. While serving, in 1855-56, under Dr. Parkes, at the British Civil Hospital on the Dardanelles, I had under my care an artilleryman who was suffering from the sequelæ of intermittent fever; he was a native of the State of Texas, but of English parentage. He had a large ague-cake, which was being slightly and slowly reduced by a course of iodide of iron, and other appropriate treatment. Growing tired of this, he one day addressed me as follows. "Don't you think, Doctor, it would be a savin' o' time if you was to cut the spleen out o' me." I told him it might save his time, but would lose his life, to which he rejoined that it might be so, "but it didn't kill the Injun runners in his country." He explained that he had been told, and believed, that Texan Indians who wished to acquire great speed and endurance in running had their spleens taken out, and I think he added that he had seen the resulting scars; but on that point I am not certain, not having thought it worth while to make any note of the man's statement; for though it was certainly made in perfect good faith, and convinced me that the belief was prevalent in Texas, I was very far from crediting the fact, nor, indeed, do I credit it now.

I am, &c. John Beddoe, M.D.

Clifton, November 23.

The late Dr. Boudin.—The October number of the *Recueil de Mémoires de Médecine Militaire* contains a complete bibliographical list of the writings of this eminent military sanitarian and statistician. They amount to not less than 146 in number, published during the years 1830-67. Several of them are laborious and exhaustive treatises, and all characterised by indefatigable industry and great erudition.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 12, 1867.

Mr. PRESCOTT G. HEWETT, F.R.C.S., Vice-President, in the Chair.

MR. SEDGWICK read a paper on

SOME ANALOGIES OF CHOLERA, IN WHICH SUPPRESSION OF URINE IS NOT ACCOMPANIED BY SYMPTOMS OF URÆMIC POISONING.

As an assistance towards lessening the difficulty which attended the investigation of cholera, analogy, in so far as it enabled us to trace out and establish a resemblance between it and other morbid conditions of the system which admitted of being more readily explained, would be useful, provided the principle was sound on which the analogical reasoning was based. For it had become a necessary and in some respects an unpleasant duty to direct attention to the fact that in the investigation of cholera, as of other baffling diseases, attempts had on many occasions been made to establish false analogies in support of unfounded theories of the disease, or of ill-devised plans of treatment, which, after attracting popular attention, had for the most part been soon slighted and forgotten. In order, therefore, to avoid the errors which resulted from false principles in theory or in treatment, and to check the ever recurring tendency in discussion to substitute assumption in the place of fact, it was proposed, in the following attempt to trace an analogy between cholera and allied, but less obscure affections of the system, to limit the inquiry to a comparison between the well-defined and characteristic group of symptoms and pathological changes which accompanied the collapse of that disease, with special reference to the suppression of urine during life and an empty and contracted state of the bladder after death, and such cases of collapse, resulting either from poison or from disease, in which a corresponding condition had been developed and observed. The cases in which such an analogy could be more or less clearly established were acute poisoning by corrosive sublimate, by arsenic, and by mineral acids, especially nitric acid; the effects which occasionally followed the eating or drinking of poisonous animal matters, such as tainted or simply unwholesome meat or fish, and milk which has undergone some injurious, but as yet unknown, change; decomposing vegetables and some of the poisonous fungi, and the excessive action of certain drugs, such as some of the drastic purgatives, especially croton oil. In cases of poisoning by corrosive sublimate, both the symptoms during life and the appearances after death were in many important particulars, and especially as regarded the urinary secretion, closely analogous to those of cholera. Among the evidence cited in support of that analogy was a case of acute poisoning by corrosive sublimate, which had been under observation in Guy's Hospital in 1843. The patient lived four days, and did not pass any urine during the whole of that time; and after death the bladder was found empty and contracted. In cases of poisoning by arsenic, it had been observed that, in addition to the more common results of poisoning, there were others which, as in the preceding class of cases, sometimes closely assimilated its effects to those of cholera, in consequence of which Devergie had referred to it as one of the poisons which best simulated cholera. Among the symptoms and pathological appearances which had been noticed, and to which more particular attention should be directed, were suppression of urine, cyanosis, conjunctival injection, and a physical alteration in the condition of the blood closely analogous to that which occurred in cholera, together with such a failure of the circulation, that occasionally even for some hours before death neither pulse nor beating of the heart could be perceived. There was evidence of the urine being suppressed in cases of collapse from poisoning by muriatic acid, reported by Devergie and by Dr. Collas; by sulphuric acid, reported by Casper and by M. Stanski; by nitric acid, reported by M. Tartra; and by chloride of antimony, reported by Dr Crisp. In a case reported on by M. Girard, the analogy between the symptoms of poisoning by these fungi and of cholera was very great, for it had been specially observed that the alvine dejections were nearly always white, like rice-water, and flaky; and in another case of a similar kind it had been observed that the blood after death was "very black and very liquid." The closeness of the analogy in the preceding cases was perhaps to be regarded as in some measure favourable to the theory which referred cholera to a specific blood-poison; and if the reasoning from analogy were limited to such cases, it would be almost allowable to assume that the abdominal centre of the sympathetic nervous system might be only secondarily affected through the ramifications of the vaso-motory nerves; for such a theory was to some extent, though not altogether, reconcilable with the irritant and corrosive effects produced on the gastro-intestinal mucous membrane, and which, in all of the above-cited cases, were associated with, if they did not occasion and develope, the collapse simulating that of cholera. But there remained to be considered a group of cases, characterised by a closeness of analogy approaching in some respects almost to identity with cholera, in which it would not be allowable to assume that a blood-poison was the cause of the collapse. Well-marked illustrations of such occurrence of collapse, altogether independent of any possible connexion with blood-poisoning, were to be met with in cases of perforation, rupture, and laceration of the stomach and small intestines, over-distension of the stomach, and impassable obstruction in the small intestines. In all those cases, with some others of an allied character which would be incidentally noticed, there was usually a condition of collapse associated with suppression of urine, which not unfrequently had been, and almost unavoidably was, very liable to be mistaken for that of cholera. Further inquiry in the same direction, and a more extended acquaintance with the literature of the subject, having convinced him that there was a very close relation between perforation and cholera, the author endeavoured in 1856 to prove in his work "On the Nature of Cholera as a Guide to Treatment," that the theory which ascribed cholera to an impression on the sympathetic nervous system, conveyed through the medium of the stomach or intestines, was very strongly supported by the analogical evidence of such and other allied cases which could be cited in its favour; and he in consequence proposed to include them with cholera under the head of "disorders of the sympathetic nervous system depending on diminution or arrest of its functions, and produced chiefly through the medium of the stomach." In all such cases there was essentially the same condition of collapse, which was usually accompanied, as in cholera, with suppression of urine during life, and an empty and contracted state of the bladder after death. As an illustration of the extent to which that important condition in the analogy prevailed, he referred to the case of a patient who had lately died in the cholera ward of the London Hospital, after an illness of about two days and a half, from perforation of the duodenum near the pylorus. In the published report of the case, there was no mention of the state of the urinary secretion or the bladder; but on subsequently writing to the Medical officer who had reported it, he was informed that there was "undoubted and continued suppression of urine." The additional information which was obtained in that case, derived increased importance from the fact that another case of pseudo-choleraic collapse occurred in the same Hospital only seven days afterwards, in which the symptoms supposed to be indicative of "sudden cholera collapse" were described as follows:—"Almost pulseless, quite cold, with general lividity of the surface and blueness of the finger-nails;" but it was important to notice in the history of the case that whilst "several ounces of clear urine were drawn off," the patient was only semi-conscious. After death, which occurred in the cholera ward, all the organs, with the exception of the supra-renal capsules, were found to be healthy. So far as regarded the literature of the subject, it was acknowledged that the positive evidence in favour of suppression of urine during the collapse consequent on perforation was somewhat incomplete; but the author cited cases illustrative of the effects of perforation of the duodenum, jejunum, and ileum in this way. After fully discussing the evidence in favour of suppression of urine in perforation and obstruction of the ileum, the author reviewed the opinions which had been expressed by the various authorities which he had cited, respecting the diagnostic value of suppression of urine in such cases, and he remarked that they were all defective in so far as the suppression was alleged to be connected with or dependent on something which was not essential to its occurrence, although it might be, and perhaps often was, associated with it. Hence the importance of carefully collating the clinical history of all those cases in which, as in cholera, it characterised the collapse; for by thus extending the range of the inquiry it would be conclusively proved that suppression of urine occurred in corresponding

conditions of collapse, independent of any one of those four cardinal phenomena—of pain, vomiting, intestinal obstruction, and intestinal flux—which had each been referred to by distinguished writers on the subject as its correlative. With respect to the suppression of urine, it had been satisfactorily demonstrated by the researches of Dr. Garrod and other able investigators of the chemical pathology of cholera, that the formation of urea was checked or suspended during choleraic collapse; and although there were no corresponding observations on the suppression of urine in analogous cases of collapse, and, consequently, no direct authority for stating that the suppression in such cases was due to a like arrest of organic function, yet the presumptive evidence was very great, if not almost conclusive, in its favour. Before, however, any just estimate could be made of the value of analogy in cholera, it was necessary that preconceived opinions in favour of a lung theory of the disease should be given up, so as to allow the attention for a time to be transferred from the outworks to the centre of organic life; otherwise it would be physiologically impossible to explain why, for example, lactation should usually continue, and the urine be suppressed, whilst the condition of the brain itself was undisturbed: and, although analogy could only be referred to for the purpose of supplying indirect evidence, yet, on the present occasion, that evidence was so strongly in favour of cholera being primarily due to an affection of the sympathetic nervous system, developed through the medium of the digestive canal, as scarcely to need any further support. But before concluding it would perhaps be useful to state that such experimental evidence as the subject admitted, strengthened the argument from analogy; and that, among such corroborative evidence, it might be advantageous to note the following observation, published some years ago by Dr. Davey, that "the fatal depression in cholera, consisting in the complete annihilation of the action of all the vital organs, may be at any time simulated by pressing the solar ganglion on the fore part of the bodies of the vertebræ, over which it lies."

Mr. French said that he could only recognise the suppression of urine as analogous to those instances of poison which produced copious alvine discharge. A still more remarkable instance than any noticed by the author was recorded by Chritison in his work on poisons, where a large dose of the infusion of digitalis being taken, notwithstanding its admitted diuretic properties, in this instance was attended with an overwhelming diarrhœa, and suppression of urine for three days. He thought that the absence of uræmia during the long suppression of urine was analogous to the absence of embolism during the long-continued extremely feeble circulation, and that both phenomena were to be referred to the altered conditions of the blood in cholera by the withdrawal of the fibrine and of the urea. If the phenomena of the disease were carefully watched during the progress of the disorder, the most remarkable contrivances would be revealed for averting a fatal result, which appeared to be inevitable.

The President reminded Mr. French that the title of the paper did not allow of such divergence in the discussion, and Mr. French desisted.

Dr. G. Johnson remarked that there were two classes of cases alluded to in the paper as identical, but which were in reality perfectly distinct; these were cases of poisoning and cases of perforation. With regard to poisons, the author seemed to deny that there was any such thing in cholera; therefore the two cases were hardly comparable. Again, many poisons no doubt act directly on the kidneys, as, for instance, corrosive sublimate. Croton-oil, too, owes its peculiar prostrating effects to something else than its powers of purgation, as in a case reported by Pereira where the dust of croton-oil seeds produced violent collapse without any purging. With regard to perforation, again, some of the cases were strikingly alike, but others were very different, so far as collapse was concerned, from the effects of cholera. Coma exhibits a great diversity of cause, the effect being the same; so with collapse. In cases of perforation an irritant was applied to the whole surface of the peritoneum; in cholera it was applied to the mucous membrane only. In reality, the ganglionic system would seem to have but a feeble effect in giving rise to collapse; ordinarily the impression seems to be conveyed through the cerebro-spinal nerve, as in Surgical shock. But the author says that the poison was not in the blood; how, then, was it to reach the ganglionic system? The urine was suppressed, it was said, owing to failure of oxidation: was it not rather that, the circulation being arrested in the lungs, no aerated blood could be circulated? Venesection, it was said, improved the condition of a cholera patient; surely this form of collapse must differ from those ordinarily seen, otherwise the proceeding would speedily hurry the patient to his grave. So also with regard to the effects of opium: the two forms of collapse differed essentially.

Dr. Marcet held that chemical action was suspended, and therefore the circulation was diminished, and not *vice versâ*. As to the formation of urea it was diminished in cholera, whilst in inflammatory affections its quantity was increased. One case of poisoning by corrosive sublimate he had seen in Switzerland was exactly similar to one of cholera.

Mr. Sedgwick complained that certain portions of his paper had been omitted, but with regard to Dr. Johnson's objection as to the effects of bleeding, the practice used to be extremely common in perforation, nor did it seem to shorten life. He did not express an opinion as to the existence of a blood-poison. Very likely one would be found, probably of a fungoid nature. One case of poisoning he had not mentioned (by amanita) resembled an attack of cholera in every respect, even to the rice-water stools.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 19, 1867.

Dr. J. W. Ogle in the Chair.

Reports were read on the specimens of tumour brought before the Society at their last meeting by Mr. C. Heath and Dr. Leared.

Dr. J. Ogle then proceeded to exhibit and describe a tumour, a recent specimen of cancer of the vertebræ, affecting the aorta and pressing on the spinal canal. The dura mater was not affected, but the cord was indented and the woman was paraplegic. Later on the legs became œdematous, and she died suddenly. He wanted to show the effects on the cord rather than to speak as to the nature of the tumour.

Dr. Peacock exhibited three specimens.

1. ANEURISM OF THE ARCH OF THE AORTA PRESSING UPON THE LEFT PNEUMOGASTRIC AND PHRENIC NERVES.

A labourer, but formerly a soldier, aged 40, admitted into St. Thomas's Hospital on June 21. He then laboured under pains about the left shoulder and chest, and on examination there was entire dulness over a large space between the nipple and left clavicle, distinctly separated from the cardiac dulness. In this space the arterial sounds were very loudly heard, and there was a marked heaving impulse. At first there were no evidences of pressure upon the adjacent parts, but subsequently laryngeal symptoms came on, and he had a troublesome cough, with dyspnœa and difficulty of swallowing, and the veins above the left clavicle became distended. He died on August 21. The post-mortem examination was made the same day by Mr. Wagstaffe, and the parts were afterwards carefully dissected by Mr. Stewart. An aneurism, about the size of a cricket-ball, was found to arise from the transverse portion of the arch of the aorta. The left pneumogastric nerve was lost in the tumour for about three or four inches, and the left phrenic for two or three inches. The origin of the left recurrent nerve also could not be found. The œsophagus was compressed between the tumour and spinal column, and the left brachiocephalic vein was nearly obliterated by firm clot.

2. ABSCESS CONNECTED WITH CARIES OF THE LUMBAR VERTEBRÆ, WITH STRUMOUS PYELITIS, SMALL ABSCESSES IN THE PROSTATE, AND TUBERCLE IN THE EPIDIDYMIS AND LUNGS.

A bricklayer's labourer, aged 23, admitted into the Victoria-park Hospital on July 17. His illness commenced in the middle of April with profuse hæmoptysis, followed by cough, expectoration, dyspnœa, perspirations, and debility; and, when admitted into the Hospital, he had signs of commencing phthisis, and, on examining the urine, a large quantity of pus was found in it. It then appeared that, about two months before, he had had a severe kick on the groin, which gave great pain at the time, and his water became thick afterwards. He subsequently complained of pain about the left groin and sacrum, and could not straighten the leg. He died exhausted on October 3. On post-mortem examination, performed by Dr. Sutton, a large abscess was found on the posterior part and left side of the abdomen, which was connected with caries of the bodies of several of the lumbar vertebræ. The abscess extended from the ribs above and passed beneath Poupart's ligament below, whence it burrowed into the thigh, and had

nearly reached the skin. The left kidney was in an advanced stage of strumous pyelitis, its pelves and the calyces being distended with pus, and the structure wholly destroyed; the ureter was greatly thickened, but pervious. There was no connexion between the abscesses in the kidney and that external to the organ. There were two small abscesses in the prostate, tubercle in the epididymis of the left testis, and some tubercle and one small cavity in the lungs. Two or three small tubercles were also found in the ileum.

3. ABSCESS IN THE LIVER OPENING INTO THE RIGHT PLEURAL CAVITY, AND THENCE INTO THE LUNG.

A man, aged 31, formerly in the army, and for ten years in India, admitted into St. Thomas's Hospital on August 6. While in India he had had several slight attacks of fever, but had never had any serious illness, and said that he had led a temperate life. He stated that on returning home after being discharged from the army, having served the short period, he was quite well, but immediately after he was taken with diarrhœa, and never entirely recovered his health. He was admitted into the Hospital two months after the commencement of the symptoms, and then laboured under diarrhœa with symptoms of hepatic derangement. He was much relieved by treatment, and was allowed to go into the garden, the weather being very cold at the time. About a week after, he was seized with pain in the right side, and extensive effusion appeared in the right pleural cavity, and his general health became more impaired and the diarrhœa more severe. Soon after, on awaking in the morning, he suddenly expectorated a considerable quantity of matter, and this expectoration recurred some days after, and then continued, more or less, every day, till the last week of his life, when he was becoming much prostrated. The matter was of a greenish-yellow colour, and partly bloody. It was sometimes brought up with coughing, but sometimes without any effort, and generally in the night or morning. There was also evidence of the entrance of air into the pleural cavity. He died exhausted on November 7; and, on post-mortem examination, the right pleural cavity was found filled with matter resembling that which had been expectorated during life. An opening, sufficiently large to admit the hand, could be passed through the diaphragm into the cavity of a large abscess in the liver, which also contained matter similar to that in the pleura. The lung was displaced to the left side and upper part of the pleural cavity, and much compressed, and its surface in several places was ulcerated so as to form openings by which the matter in the pleura had penetrated into the substance of the lung. The colon displayed numerous old and recent ulcers.

(To be continued.)

OBITUARY.

RICHARD GEORGE WHITE, M.R.C.S., L.A.C.

We regret to record the death of this estimable and much-lamented member of our Profession. He had been for ten years engaged as one of the Surgeons of the Royal Mail Steam Packet Company, and was considered as one of their most experienced Medical officers. He had seen and treated yellow fever in all its varied forms, and in 1866 he had a very severe attack of the disease. On his arrival at St. Thomas, in the ill-fated *Rhone*, he was again seized with symptoms of the disease, but, instead of being allowed to go to the Hospital, he was taken to the private residence of Dr. Magens, King's Physician at St. Thomas's, under whose skilful care and hospitable roof he remained for a week, at the expiration of which time he made up his mind to join his ship. He started from St. Thomas, in the *Rhone*, for Peter Island, in a weakly and very depressed state of mind. A few hours after his departure from that island came on that dreadful hurricane, which, in the mysterious dispensation of Providence, launched into eternity so many brave fellows, and amongst whom was poor Richard George White. His body was washed ashore at Tortola Island, recognised by some of his shipmates, and there interred. Mr. White's many personal good qualities had endeared him to a large circle of friends. He leaves a widow totally unprovided for.

SOCIETY OF APOTHECARIES.—Mr. George Cooper, F.R.C.S., of Brentford, the representative of the Society at the General Medical Council, has just been elected Master for the second time, a circumstance which, it is stated, has not occurred for more than half a century.

NEW BOOKS, WITH SHORT CRITIQUES.

On the Distinctive Characters of External Inflammation, on Inflammatory or Sympathetic Fever, and the Results of Thirty-six Years' Experience of the Effects of Bleeding. By J. H. James, F.R.C.S., etc. London: John Churchill and Sons. Pp. 104.

*** Our readers will doubtless recollect the papers which Mr. James, the Exeter Surgeon, contributed to our pages, embodying the results of so many years' experience and so much careful observation. To these he has added a short paper on cholera, and published the whole in a separate form.

Excision of the Knee-joint: A Description of a New Apparatus for the After Treatment, with Illustrative Cases. By P. H. Watson, M.D., F.R.C.S.E. Lecturer on Surgery, Royal College of Surgeons, Surgeon to the Royal Infirmary, &c. Edinburgh: Maclachlan and Stewart. Pp. 78.

*** We have already had occasion to notice these papers favourably as they appeared in the *Edinburgh Medical Journal*. The apparatus recommended consists of an iron rod in front moulded to the leg, and arched at the knee, with a hook at the ankle for its suspension to a cradle; behind a broad flat or scooped-out wooden splint, cut away at the knee-joint, and at the heel, so as to prevent pressure on the os calcis. The whole is bound together by an open wove bandage, and covered, save at the site of injury, with paraffin or plaster of Paris. The result is described by Dr. Watson as excellent.

Germinal Matter and the Contact Theory. By James Morris, M.D. Lond., F.R.C.S., etc. London: Churchills. Pp. 111.

*** This admirably suggestive little work has, in its second edition (having passed through the first with unusual rapidity), been considerably enlarged and improved.

MEDICAL NEWS.

UNIVERSITY OF LONDON, 1867.—SECOND M.B. EXAMINATION.

EXAMINATION FOR HONOURS.

Medicine.

First Class.—Marcus Beck (scholarship and gold medal), University College; *George Rolph Raine (gold medal), Guy's Hospital; *Robert Shingleton Smith, King's College; *Paul Henry Stokoe, Guy's Hospital; *John Wickham Legg, University College; *Charles Berrell, King's College. John Cafavy, St. George's Hospital; John Reuben Bathurst Dove, London Hospital; George Hunt Orton, St. Bartholomew's Hospital; and Henry Franklin Parsons, St. Mary's Hospital (equal); James Sawyer, Queen's College, Birmingham.

Midwifery.

First Class.—R. Shingleton Smith (scholarship and gold medal), King's College; *George Rolph Raine (gold medal), Guy's Hospital; *Marcus Beck, University College, and *John Reuben Bathurst Dove, London Hospital (equal); George Hunt Orton, St. Bartholomew's Hospital; Charles Berrell, King's College.

*Obtained number of marks qualifying for scholarship.

Second Class.—Henry Franklin Parsons, St. Mary's Hospital; Paul Henry Stokoe, Guy's Hospital.

Forensic Medicine.

First Class.—Paul Henry Stokoe (scholarship and gold medal), Guy's Hospital.

Third Class.—George Rolph Raine, Guy's Hospital; John Reuben Bathurst Dove, London Hospital; Marcus Beck, University College, and Charles Berrell, King's College (equal).

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 21, 1867:—

Frederick Marshall, Claremont House, Prince of Wales's-road; James Hopkins Walters, Kingston-on-Thames; Joseph Llewellyn Williams, Wrexham, North Wales; William Roberts, Westgrove, Retford; Henry Leigh Mallory, Knutsford, Cheshire; Croft George Symons, Plympton, Devon; George Williamson, 226, Newtown, Birmingham.

The following gentlemen also on the same day passed their First Examination:—

Thomas Wells Hubbard, Guy's Hospital; Urban Pritchard, King's College Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, WILLIAM L., M.R.C.S.E., L.S.A., has been appointed House-Surgeon to St. Thomas's Hospital.

BINGHAM, J. J., L.R.C.P. Edin., M.R.C.S.E., has been appointed House-Surgeon to the Derbyshire General Infirmary.

DUKES, CLEMENT, M.R.C.S.E., L.S.A., has been appointed House-Surgeon to St. Thomas's Hospital.

HEARDER, Dr., has been appointed Medical Superintendent of the Carmarthen and Joint Counties Lunatic Asylum.

KEOGNEY, R. W., M.D., has been appointed Assistant-Physician at the Provincial Hospital for the Insane, Halifax, Nova Scotia.

BIRTHS.

ANDERSON.—On November 24, at 1, Woodside-crescent, Glasgow, the wife of Dr. McCall Anderson, of a daughter.

BEVISS.—On November 21, at 4, Gloucester-street, the wife of C. Beviss, M.D., of a son.

EVERSHED.—On November 22, at Ampthill, Beds, the wife of Dr. A. Evershed, of a son.

ROSE.—On November 20, at Hampstead, the wife of H. C. Rose, M.D., of a son.

STAINER.—On November 19, at Grandpont, Oxford, the wife of Dr. Stainer, of a daughter.

MARRIAGES.

AUCHINLECK—BEAMISH.—On November 19, at St. Luke's Church, G. Auchinleck, M.D., 81st Regiment, to Arabella Lovayne, daughter of W. Beamish, M.D., and granddaughter of the late J. S. Beamish, Esq., of Mount Beamish, county Cork.

BENNETT—ANSON.—On November 22, at St. James's Church, Paddington, J. J. Bennett, M.D., of Wilton, Wilts, to Elizabeth Grace, relict of T. King, Esq., and only child of Colonel S. Anson. No cards.

ELWES—GIBBON.—On November 26, at St. George's, Hanover-square, C. W. Elwes, M.D., to Emily, sixth daughter of C. B Gibbon, Esq., and adopted daughter of J. N. Barclay, Esq., Harmondsworth, Middlesex.

FORSTER—MACLEAN.—At Holy Trinity Church, Gosport, Hants, T. B. Forster, M.D., R.N., of Keyham Dockyard, to Emily Charlotte Melville, youngest daughter of the late Captain D. Maclean, 2nd Queen's Royals.

RICHARDSON—CUMMING.—On November 19, at St. Mary's Church, Torquay, W. Richardson, M.D., of Hammersmith, to Mary Jane, only daughter of the late J. Cumming, Esq., St. Mark's-crescent, and niece of the late J. Cavan, Esq., of Park-crescent, Regent's-park.

DEATHS.

CLARK, G. B., L.R.C.S. Edin. (formerly of Colche-ter), at Princeland, near Coupar Angus, N.B., on November 11.

HAGUE, R., L.K.Q.C.P.I., Surgeon R.N., at Hillsgrove, Skibbereen, Ireland, on November 12, aged 30

ORIEL, F. W., M.R.C.S., of 21, Alfred-place, Bedford-square, on November 22, in his 65th year.

PRICE, J., M.D., M.R.C.P. Lond., F.R.C.S.E. (formerly of H.M.'s Army Medical Staff), at Brixton, on November 23, in his 76th year.

SANSOM, MARIE ROSALIE AGNES, daughter of A. Ernest Sansom, M.D., M.R.C.P., on November 20, at 29, Duncan-terrace, aged 2 years and 3 months.

SMITH, S., F.R.C.S.E., at Leeds, on November 19, aged 77.

TAYLOR, J., M.R.C.S.E., L.S.A., at Heworth, York, on November 15, aged 24.

VACANCIES.

BATH MINERAL WATER HOSPITAL.—Resident Medical Officer.

BROMPTON HOSPITAL.—Assistant Physician.

MIDDLESEX HOSPITAL.—Resident Physician's Assistant.

MANCHESTER ROYAL INFIRMARY.—Junior House-Surgeon.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Physician.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Newhaven Union.—Mr. F. W. S. Wicksted has resigned the Third District; area 12,210; population 1255; salary £26 per annum.

APPOINTMENTS.

Bethnal-green Parish.—Edward J. Adams, M.R.C.S.E., L.S.A., Assistant Resident Medical Officer at the Workhouse.

Crediton Union.—Henry M. Body, M.R.C.S.E., L.S.A., to the Shobrooke District.

Luton Union.—Henry Bate, M.R.C.S.E., L.S.A., to the Markyate-street District.

Llanfyllin Union.—William W. Thomas, M.R.C.S.E., L.S.A., to the Llanfair District.

Stoke Damerel Parish.—Joseph May, junior, M.R.C.S.E., L.S.A., to the Stoke District. W. J. Anniss, L.F.P. and S. Glas., L.S.A., to the Clowance District.

Tenterden Union.—James Griffith, M.D. St. And., M.R.C.S.E., L.S.A., to the High Halden District.

THE CHANCELLOR OF THE UNIVERSITY OF DUBLIN.—The authorities of Trinity College have nominated Lord Cairns and Viscount Monck as candidates for the chancellorship. The decision will not be made till the 20th proximo, but there is little doubt that Lord Cairns will be the successful competitor.

A CRIMINAL LUNATIC (?).—Oxford, who was convicted many years ago for firing at her Majesty, has been released from Broadmoor, the prison for criminal lunatics. He is, however, never to be permitted to reside in Great Britain.

THE general session of the St. Andrews Medical Graduates' Association will be held at Willis's Rooms, St. James's, on Tuesday, December 3. The President, Dr. Richardson, F.R.S., will deliver an address on "Research in Medicine," at 2 p.m. The general programme is as follows:—Monday, December 2, 1 p.m.: Report of Council; franchise; representation on Senatus of University; election of new officers, etc.; "The University of St. Andrews and its Medical Graduates," Dr. Sedgwick, London. Tuesday, December 3, 10 a.m.: "Report on Ozone," Dr. Day, Stafford; "Tubercle in Lower Animals," Dr. Edwards Crisp, London; "Septicæmia," Dr. Wynn Williams, London; "Nature and Antecedents of Phthisis," Dr. C. Drysdale, London; "Gastrotomy in Extra-uterine Pregnancy," Dr. D. Lloyd Roberts, Manchester. 2 p.m.: President's address; "Report on Disinfectants," Dr. Procter, York; "School Dietaries," Professor Lyon Playfair, C.B., Edinburgh; papers by Dr. Moffat, Hawarden; Dr. Cordwent, Taunton; and others.

THE Social Science Association are to be invited to hold their next annual meeting in Birmingham.

NORTH STAFFORDSHIRE MEDICAL SOCIETY. — The fifteenth annual meeting of this Society was held on Thursday, November 21, at the North Staffordshire Hotel, Stoke-on-Trent. The Society is in a flourishing condition financially; the number of members is the same as last year. During the past year many interesting and valuable papers have been read, and the number of meetings has been equal to that of previous sessions. The retiring President (Walter Acton, Esq.) read a very able and practical address, replete with points interesting to the Medical Profession, especially mentioning those relating to Medical ethics. The election of officers for the ensuing year was then proceeded with, and resulted as follows:—*President:* Ralph Goodall, Esq. *Vice-President:* Walter Acton, Esq *Treasurer:* James Yates, Esq. *Hon. Secretary:* Mr. J. M. Taylor. *Committee:* Drs. Arlidge and Greatrex, Jno. Alcock, W. H. Folker, and R. Garner, Esqs.

THE PARIS INTERNATIONAL MEDICAL CONGRESS.—A writer in the *Wiener Med. Wochenschrift* observes that "the complaints of the badness of the preparations for this Congress were unanimous. The German *savants* who repaired there because they assumed that, from a conflux of so many masters in science laden with rich experience and accumulated knowledge, great results were to be expected, found themselves undeceived from the very first meeting, left, as they were, alone and unnoticed in the lecture-theatre in which the meetings were held, and in which, in the strongest sense of the word, the foreign *savants* were again seated on the students' benches, to listen to and profit by the lectures of French Professors."

DEATH DURING ATHLETIC EXERCISE.—The death of the young gentleman, Mr. H. L. Plant, the son of Mr. Plant, of Birmingham, which happened whilst he was taking part in the exercises of an athletic club, became the subject of a coroner's inquiry on Monday, November 19. The post-mortem examination revealed valvular disease of the heart; and Mr Bracey, the Surgeon who gave evidence on the occasion, said that he considered death arose from syncopal asphyxia. It appears that it was known that Mr. H. Plant was labouring under heart affection, although it was proved that he was in the habit of running long distances for his own amusement without inconvenience.

OPERATIONS ON LIVING HORSES AT THE FRENCH VETERINARY SCHOOLS.—The final decision which has been come to respecting these operations decrees that they shall be limited to bleeding, setons (two for each horse), simple punctures, tracheotomy, two operations on the foot for each pupil in his fourth year of study (one only per horse), and two castrations for each fourth year's pupil—the animal being killed at once by the easiest possible means after the performance of such castrations. Neurotomy, which is only demanded on special occasions, requires a special authorisation for its performance. The same rules must be observed at the annual examinations and at those for the diploma.

A QUEER STATEMENT.—At Havelock vast swarms of winged ants have visited the neighbourhood. These have been eaten by the fowls with great avidity, but it would appear that the life of the insects was not thereby destroyed, and it is said that a considerable number of the fowls have died in consequence of the ants eating their way through the birds' crops. Post-mortem examinations disclosed masses of ants in a state of the most active vitality.—*Australian Medical Journal*, June.

AUSTRALIAN ITEMS.—A registrar recently received from a Medical man in one of the suburbs of Melbourne a certificate of death in which the cause of death was thus circumstantially set forth:—"Croup eight days; Medical attendance one day." A gentleman who is yet in the callow state of studentship, but who nevertheless practises occasionally on his own account, lately attended an old lady for the tapeworm, and was so far successful as to cause the removal of a considerable length of the parasite; whereupon he sent in the following account:—"Mrs. Blank to ———. Removing 40 feet of tapeworm at 6d. per yard, £1."—*Australian Medical Journal*, September.

THE BAROMETER IN STORM-WARNINGS. — It would appear from the report of Captain Vesey relative to the West Indian hurricane, that the barometer cannot always be taken as a cyclone prophet. As this point is one of the greatest importance, both in its practical bearings and in its relation to the well-known laws of meteorological physics, we quote Captain Vesey's remarks, in the hope that they may elicit either explanation or denial at the hands of those who have given the subject attention :—" Where the hurricane passed the barometer gave no warning, though the weather did, and all thought it was to be a norther. The barometer rose and fell during the breeze, and the vortex passed directly over these places."

LIEBIG'S EXTRACT OF MEAT.—An action has lately been brought in the Court of Chancery against Messrs. Allen and Hanbury, the chemists, of Plough-court, by the Liebig's Extract of Meat Company to prevent the former affixing the name " Liebig's extract " to an extract prepared for them in Australia by Mr. Tooth according to Baron Liebig's process. The Company pleaded that they had bought the exclusive right to use the designation Liebig's extract, with the Baron's acquiescence, from a company which had been started under Liebig's sanction to prepare the extract in South America, and of whose business and stock they were the purchasers. The judge—Sir W. P. Wood—without hearing the defence, found for the defendants against the Company, on the ground that the process had been published by Liebig in 1847, and that since then, and long before the formation of the Company, the extract had been largely manufactured and the name commonly used both in Germany and in England.

EXTERNAL TEMPERATURE AT MAGDALA.—Dr. Blanc, who is now one of Theodore's prisoners, has published the result of his meteorological observations, carried on at Magdala during the months of January, February, March, and April; and as these are the months of the coming year in which our expedition will be most actively engaged, Dr. Blanc's results are of some interest. The results show us that the heat of the climate, at least during the first four months of the year, has been rather overstated, the highest point reached by the thermometer being about 80°. Rain occurs frequently. To illustrate the matter, we select from Dr. Blanc's returns the temperature of the air at sunrise, noon, and sunset, on the first and last days of the four months :—

	Sunrise.	Noon.	Sunset.
	January.		
	Deg.	Deg.	Deg.
1st . . .	48	72	58
31st . . .	48	74	62
	February.		
1st . . .	45	74	59
28th . . .	51	80	63
	March.		
1st . . .	53	81	64
31st . . .	49	74	65
	April.		
1st . . .	47	78	67
30th . . .	66	81	63

TEST FOR OZONE.—A Committee has been appointed by the British Association for the Advancement of Science to reinvestigate the subject of the tests for the presence of ozone in atmospheric air. The members of the Committee are—Dr. Moffat, of Hawarden, who has written on the subject of ozone and epidemics; Mr. Lowe, F.R.S., of Highfield-house Observatory, Notts, the inventor of dry test powders for ozone; Professor Anderson, F.R.S., Glasgow; J. A. Glaisher, Esq., F.R.S.; and Dr. B. W. Richardson, F.R.S. They are to inquire whether the present tests are satisfactory for the presence of ozone in air, and whether any improved test can be discovered.

DR. BASTIAN ON PRESERVING SECTIONS OF BRAIN.—The first method, and that which I usually employ, is this: the tinted section is placed for four or five minutes in a watch-glass with pure spirits of wine, then removed on a scalpel—the superfluous spirit being got rid of by bringing the dependent edge of the section in contact with blotting-paper—and afterwards placed on a drop of carbolic acid in the centre of a glass-slip. In less than two minutes the section is rendered transparent; and when this is accomplished (having got rid of any excess of carbolic acid) I pour over it three or four drops of chloroform, in which the specimen is allowed to remain for two minutes. The superfluous chloroform is then poured off, whilst one or two drops of a solution of Canada balsam in chloroform are dropped over the specimen, and the covering-glass is then quickly applied. The whole process is therefore simple, and extends over ten minutes, even for moderately thick sections, instead of several hours.—*Journal of Anatomy and Physiology.*

HERING AND KOLLIKER ON THE MINUTE ORIGIN OF THE BILE-DUCTS.—The minute biliary passage being then a groove between two hepatic cells, these constitute its real epithelium, and there is no need to look for any further epithelium or parietes. Hering denies that these ducts have any distinct parietes, but he seems to admit that the hepatic cells have a distinct cell-wall; and Eberth (*Centralblatt*, 1866, No. 57) is probably right when he asserts that the cell-wall receives a special cuticular thickening just where the grooves are situate. Fragments of this cuticula may possibly have given rise to the appearance of distinct parietes referred to above. It is needless to add that these groove-formed channels may be traced into the interlobular bile-passages, their (hepatic) epithelium gradually, and yet more or less suddenly, suffering change of character into ordinary epithelium. And it is evident that, by means of this peculiar disposition of blood- and bile-capillaries, as much (secreting) cell-substance as is possible under the circumstances is placed between the blood-current and the biliary passage.—*Journal of Anatomy and Physiology.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Alpha.—Holmes's System, Druitt, or Erichsen.

R. H. B. W., L.R.C.S.E.—It is not necessary that a fracture should be completely united before the patient is allowed to go out, when the broken limb is set up in a starch or plaster of Paris bandage.

Mr. Bailliere, of Regent-street, requests us to state that, in consequence of Mr. Harry Lobb having associated with him in practice Mr. La'Mert, *alias* Lambert, he has declined to continue to sell his recently published pamphlet entitled "A Popular Treatise on Curative Electricity."

Mr. Henry Smith's paper "On the Results of Excision of the Knee-joint at King's College Hospital during the last Twelvemonth," shall receive early insertion.

Dyspeptic.—Look in on German Reed and John Parry; they are always amusing. By the way, Mr. German Reed has just taken St. George's-hall, Langham-place, for the purpose of establishing a comic opera in London. We hope he may be successful.

K., Liverpool.—Dr. Sutro, in his work on "Health Resorts and Mineral Springs," gives the names of eighteen Physicians at Carlsbad. We believe they are all Germans.

Dr. A. D.—The late Mr. Gunning, of Paris, was an honorary retired member of the Council of the Royal College of Surgeons. Amongst his patients was a lady whose arm he amputated, and six months after he married her, when a French gentleman present at the wedding *fête* remarked, "*Elle lui a donné la main pour lui avoir coupé le bras.*"

A Hospital Surgeon.—The College of Surgeons recognises attendance at many Hospitals to which no schools are attached, and a list of these institutions you will find in the Calendar, at page 82. Messrs. Gant, De Méric, and Hill are Fellows of the College by examination.

A SUBSTITUTE FOR CARBOLIC ACID.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Reading your reports of the results of cases treated with carbolic acid, brought to my remembrance the first amputation I performed in the year 1820, when I was Town's Surgeon at Macclesfield.

The case was one of compound fracture of tibia and fibula; amputation below the knee; the flaps sloughed. At each dressing, the wounds were washed with equal parts of fresh lemon-juice and spirits of wine; the effect was quick separation of sloughs, and a good stump.

I believe the remedy was used and recommended by that eminent provincial Surgeon, Mr. Hay, of Leeds. I am, &c. F. F. L.

Macclesfield, November 27.

REMARKABLE FECUNDITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The accompanying case of fecundity and superlactation appears to me worthy of record. Mrs. J., aged 31, married thirteen years, has had nine children born at full time (twins in one instance), and has aborted at periods varying from twelve to fifteen weeks six times (in one instance with twins). Her last baby is five months old, and she is now three months advanced in pregnancy. During the whole period of gestation she suckles her infants with a plentiful supply of milk, and at her last confinement she nursed her child on the bed with her nearly the whole time of her labour, which was tedious. Her milk must be nutritious, as one baby is supported entirely upon it until the arrival of another one compels her to wean it, and all her children are strong and healthy. Her mother had 14 children, and her two sisters are not far behind her in adding to the population. I have known many instances of women bearing large families, but never recollect meeting with so prolific a patient.

I am, &c. OBSTETRICIAN.

What is Insanity?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"Who shall decide when doctors disagree?" when learned and eminent men, profound in psychological research and in the management of the asylum, so differ in opinion? In these differences, as in matters ecclesiastic, an appeal must be made to the lawyers, jurors, and the public. All may be wrong occasionally, from the nature of the evidence given, but your agreement with the verdict on the case of Bordier places on your side all the authorities above-mentioned, and the bulk of the Profession also, unless I am greatly mistaken. After all, what is the best test of insanity, lunacy, delirium tremens, idiocy, or any other phase of a responsible or irresponsible state of mind? We are obliged to appeal to parties who live with, are acquainted with, and dwell around these individuals, and their collective information affords the best means to form an opinion and come to a conclusion. In detecting suicidal or homicidal insanity this is especially true, and we may visit such persons again and again and not of ourselves find it out. When one person is capable of arranging a plot to steal a purse, to rob a house, or to injure or kill another, whatever the motive, we are accustomed to attach responsibility to that process of mind dictating it, and the more so when it is accompanied by every artifice to avoid detection. If we did not generally take this view, every error of judgment, every delusion of mind under drink, every violation of the law by those not approving it, might be called insanity. So far, human law seems to be in keeping with the divine; if giving way to drunkenness, or any other besetting sin, leads to a variety of bad and forbidden acts as a consequence, responsibility is charged upon the whole. If you will allow me, as a humble member of the Profession, to enter this field of argument, I would beg leave to allude to drunkenness, and what appears to me its only remedy. Nobody denies drunkenness in this our country to be the great cause of poverty, domestic strife, and murder; insanity as well. The church, temperance and teetotal societies fail to meet this great evil. Why not meet it on the principle of the reformatory or asylum? Send the drunkard, who is always known and talked about, for a probationary term to a reformatory. He confesses he cannot resist the temptation of drink, and would be glad if he could. Act, then, for him, for his sober and better self, and give him the best chance of recovery. At present, drunkenness is, as the pest of the London sewage, the best means to be thought of for converting a great nuisance and evil into a great good. We may trace the one through a long series of injuries to body and mind, and likewise the other, and may reverse their influences to advantage by the compelling forces of legal enactment.

Nailsworth. I am, &c, T. Stokes.

COMMUNICATIONS have been received from—

Mr. Black; Mr. Baxter Langley; Mr. G. F. Reed; B. H. B. W.; Dr. Laycock; Alpha; Dr. Beddoe; Mr. Roberts; Mr. Arthur Kempe; An Old Subscriber; Mr. Taylor; Mr. T. R. Fraser; Dr. Gervis; Mr. Poole; Dr. Kirk; Mr. C. J. Fox; Dr. Thorburn; Mrs. Baines; Mr. Simpson; Mr Bailliere; Mr. W. R Cornish; F. F. L.; Dr. Sedgwick; Mr. Curgenven; Dr. Kidd; Mr. Caitlin; Mr. Blake; Mr. John Hayward; Dr. Barnes; Mr. Chatto; Dr. Macpherson; Mr. Grinfield-Cockwell; Mr. F. Andrew.

BOOKS RECEIVED—

Transactions of the Jamaica Royal Society of Arts and Agriculture—Byford's Diseases and Accidents incident to Women, second edition—Cohen on Inhalation—The Dental Journal, No. 135—Macgillivray's Observations on Enteric Fever—Waring on Cottage Hospitals—The Medical Investigator—New Sydenham Society's Atlas of Skin Diseases—The Dental Review, November—Morton's Veterinary Pharmacy—Cassell's Popular Educator, No. 1.

NEWSPAPERS RECEIVED—

Belfast Newsletter—Gazette Hebdomadaire—Surrey and Hants News—Medical Press and Circular—Alliance News.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 23, 1867.

BIRTHS.

Births of Boys, 1168; Girls, 1092; Total, 2260.
Average of 10 corresponding weeks, 1857-66, 1867·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	699	727	1426
Average of the ten years 1857-66	745·1	733·9	1479·0
Average corrected to increased population..	..	..	1627
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	9	8	4	4	8	2	..
North ..	618,210	5	13	7	3	5	12	4	..
Central .	378,058	1	2	2	..	5	4	1	..
East ..	571,158	1	11	6	2	6	10	2	..
South ..	773,175	3	18	14	7	8	15	4	..
Total ..	2,803,989	10	53	32	16	28	44	13	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer .. .. 30·199 in.
Mean temperature .. .. 39·6
Highest point of thermometer .. .. 46·8
Lowest point of thermometer .. .. 32·8
Mean dew point temperature .. .. 34·7
General direction of wind .. .. N. N.W.
Whole amount of rain in the week .. .. 0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 23, 1867, in the following large Towns:—

Borough, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Nov. 23.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Nov. 23.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre
London (Metropolis)	3082372	39·5	2260	1421	1426	46·8	32·8	39·6	0·00	0
Bristol (City) .	165572	35·3	115	74	189	47·4	30·0	38·5	0·00	0
Birmingham (Boro')	343948	45·9	205	167	172	49·5	31·0	38·3	0·00	0
Liverpool (Borough)	492430	96·4	375	285	298	47·8	32·6	38·8	0·00	0
Manchester (City) .	362823	80·9	248	205	1245	49·0	28·0	37·6	0·00	0
Salford (Borough) .	115013	22·2	88	58	75	48·4	27·2	37·8	0·00	0
Sheffield (Borough).	223199	9·9	154	119	90	48·0	33·5	38·7	0·01	1
Leeds (Borough) .	232428	10·8	132	118	98	50·0	2 ·5	39·2	0·00	0
Hull (Borough) .	106740	30·0	88	49	37	46·0	29·0	38·7	0·16	16
Newstl-on-Tyne, do.	124960	23·4	80	66	79	46·0	35·0	40·2	0·11	11
Edinburgh (City) .	176081	39·8	111	85	111	46·7	31·0	39·2	0·00	0
Glasgow (City) .	440979	87·1	343	257	231	49·7	25·9	37·6	0·00	0
Dublin (City and some suburbs)	319210	32·8	117	†157	132	48·9	30·1	40·4	0·00	0
Total of 13 large Towns . .	6187764	34·8	4315	3061	3083 Week ending Nov. 16.	50·0	25·9	38·8	0·02	2
Vienna (City) .	(1863) 560000	..	..	..	§ 267	..	..	40·1	..	..

Week ending Nov. 16.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·199 in. The barometrical reading increased from 29·59 in. at the beginning of the week to 30·41 in. on Thursday, Nov. 21. The general direction of the wind was N.N.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 45·0°.

APPOINTMENTS FOR THE WEEK.

November 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

December 2. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Epidemiological Society, 8 p.m. Dr. C. F. Edwards, General Sanitary Inspector of the Island, "On the recent Outbreak of Pernicious Fever in Mauritius."

Medical Society of London, 8 p.m. Mr. Alfred Ebsworth, "On Nurses and Nursing generally."

Odontological Society, 8 p.m. Dr. Murie, "On a Case where Disease has ensued in the Alveolus of a Rhinoceros from the Presence of a Foreign Body," and "A Case of Diseased Bone and Tooth Structure in a Bear."

Royal Institution, 2 p.m. General Monthly Meeting.

3. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

4. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Obstetrical Society of London (Council, 7 p.m.), 8 p.m. Dr. Snow Beck, "A Case of Puerperal Fever, with Remarks." Dr D. L. Roberts, "A Case of Cæsarian Section." Dr. Playfair, "On Cardiac Apnœa after Delivery." Dr. Grailly Hewitt, "On Traumatic Aneurism of the Uterine Artery."

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. J. H. Stallard, Esq., M.D., "On the Relation between Health and Wages."

5. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 7½ p.m.: Council Meeting (Special). 8 p.m.: Dr. Broadbent, "On Purpura."

6. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 8 p.m. Dr. [illegible] Remarks on the Clinical Use of the Sphygmograph, with Demonstrations."

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE ACTION OF NARCOTISING GASES AND VAPOURS.(a)

(Continued from page 560.)

From the general matters with which thus far our minds have been occupied we will proceed by experiment to look at the action of certain of the anæsthetics brought before us on the table. I cannot pretend to take them all, but I will select distinct representatives of each class, beginning with—

Nitrous Oxide.

To illustrate the action of this gas, we have placed a pigeon in a glass chamber capable of holding 300 cubic inches of air, and through which the air can pass freely. Then we have driven through the chamber equal parts of nitrous oxide and air, not all at once, but with gradual increase of the gas. As is common in this experiment, a full half-hour has elapsed since the inhalation commenced, but it was only three or four minutes ago when an effect was produced. Then the animal rather suddenly sank into sleep, and now it is profoundly anæsthetised. We take it from the jar, and it seems as if dead, and it is very doubtful if it will not die. This is the ordinary action of nitrous oxide; it is slow to act as an anæsthetic, and quick to kill. Practically it is not to be considered an anæsthetic.

But connected with nitrous oxide there is a history of singular interest. From it anæsthesia, as a branch of science, takes its date. I have in my hands the researches of Sir Humphry Davy, published in the year 1800, and entitled "Researches Chemical and Philosophical, chiefly concerning Nitrous Oxide or Dephlogisticated Nitrous Air, and its Respiration. By Humphry Davy, Superintendent of the Medical Pneumatic Institution;" and at page 556 I read the following sentence:—"As nitrous oxide in its extensive operation appears capable of destroying physical pain, it may probably be used with advantage during Surgical operations in which no great effusion of blood takes place."

This was the keynote of anæsthesia, of the science and of the scientific practice.

Turning our attention to the position of nitrous oxide in respect to its physical relationships with other anæsthetic substances, we discover that the density of it is twenty-two times greater than the density of hydrogen. It is heavier than air, and it possesses precisely the same weight as carbonic acid. It differs from all the other bodies in the series, in that it supports the process of combustion, in this respect resembling air, or rather oxygen, for the combustion of carbon is more brilliant in this gas than it is in the air. I have here a jar of the gas, and I plunge into it a lighted taper. The combustion is very much increased. If I plunge in burning phosphorus, the same phenomenon is observed, and even sulphur well lighted will serve for the purpose of the experiment. But in this gas slow combustion is not effective as in air. In truth, as Roscoe very clearly explains, the gas has to be decomposed by the heat of the combustion into oxygen and nitrogen—that is to say, it has to have its chemical union broken, and to be reduced to a common atmosphere of two of nitrogen and one of oxygen, before the oxygen is free enough to combine. If I make a common atmosphere of nitrogen and oxygen in the same proportions, I have a mixture which supports combustion in the same degree as decomposed nitrous oxide gas.

Whether or not in the human body this gas is also decomposed I am not prepared to say. From the fact that animals can for a time live in it pure, one would imagine that this was the case; but as the animal temperature and sensibility soon begin to fall, and as death is the inevitable consequence of the inhalation if it be prolonged, we may be sure that the combustion is much modified from that which takes place when the common air, containing so much less oxygen, is breathed. Presuming, then, that there is a modified combustion, the modification must at first consist of an increased combustion, of an increased formation of carbonic acid, and of after effects due to excess of carbonic acid. This theory tallies with the phenomena, for undoubtedly the first symptoms of nitrous oxide are those of excitement—symptoms which have given to it its name of laughing gas—and undoubtedly the last symptoms are those common to poisoning by carbonic acid.

After death from nitrous oxide the condition of the lungs and of the heart is very uniform. The animal—a rabbit—which I send round, and which has slept to death in the gas, is an excellent illustration. The lungs are left full of blood; the heart is left full of blood on both its sides, and the arterial not less than the venous blood is intensely dark in colour. The morbid conditions resemble those produced by carbonic acid.

Lastly, if to bright red blood nitrous oxide be added, if the blood be agitated in the gas, and the temperature be not raised, there is at once produced an intense darkening of the blood, as with carbonic acid.

Such, briefly, are the facts relating to nitrous oxide. I have said that it is not practically an anæsthetic—by which I mean that, although it produces insensibility, it does not act in such a ready way and in so safe a way as to commend itself to the Practitioner. In my hands, in experimenting with it on animals, I have found it to be very fatal when carried to such an extreme degree as to produce a condition ready for the knife of the operator. In America, however, the risk as well as the inconvenience of the administration have been accepted; but the results, as might have been anticipated from careful experiment and theory, have been unfavourable.

Carbonic Oxide Gas.

To demonstrate the action of carbonic oxide, we have a glass chamber which will hold one thousand cubic inches of air, and we have the gas in a separate holder. We place a pigeon in the chamber, close the chamber thoroughly, and then let circulate through it slowly fifty cubic inches of the gas. Quickly and quietly the animal sinks down into sleep; it makes one or two attempts to vomit, and it is slightly convulsed, but it is soon insensible. I take it out insensible, and I could perform any operation upon it readily without causing pain. It will recover in from five to six minutes. Carbonic oxide gas possesses a curious history in relation to the practice of anæsthesia. Several years ago I saw in the country the old experiment of narcotising bees with the smoke arising from the burning of the *Lycoperdon giganteum* or common puffball. For centuries past bees have thus been narcotised, in order that the produce of the hive might be got without the sacrifice of the inmates of the hive. Struck with the fact, I obtained some of the fungus from a friend, Mr. Hudson, and tried the effect of the fumes from it on various classes of animals. The balls yielded a product which acted as a very good anæsthetic. I administered this anæsthetic a large number of times, and performed several veterinary operations under its influence with entire success. I also collected the fumes, purified them of carbonic acid and of free carbon, and still found that the narcotic substance—gas or vapour—was persistently present. The late Mr. Thornton Herapath, a chemist of great promise, reading my paper on the anæsthetic properties of the fumes of the burning *Lycoperdon*, made a careful analysis to find what was the narcotic agent causing the phenomenon. He discovered the agent to be the gas that has just passed through our hands—viz., carbonic oxide; and soon he was confirmed in his view by the careful and industrious Snow.

Thus, as I have said, there is a curious history connected with carbonic oxide; for it has unwittingly been in use for centuries as a narcotising gas.

Carbonic oxide possesses a gas density of 14—that is to say, it is fourteen times heavier than hydrogen. If it be collected pure, as in this jar, and a taper be plunged into it, the gas undergoes combustion, giving a bluish-tinted flame. This anæsthetic, therefore, burns, as we prove now by direct experiment.

An animal killed by carbonic oxide dies at last suddenly, but the action of the heart continues long after death. We have before us an animal that was destroyed by the gas one hour ago, and still the right side of the heart is in motion. The lungs are rather pale; the blood on the venous side of the circulation, as well as on the arterial side, is of the most brilliant red colour. Blood exposed to the gas after death becomes also of bright red colour.

The animal that has been made to sleep to death in carbonic oxide, after careful dissection by Dr. Sedgwick, is now ready

(a) Delivered on Tuesday, November 12.

to be passed round. There is also in the trough with it a specimen of blood that has been exposed to the action of the gas.

Carbonic oxide is inapplicable as a general anæsthetic, because it would be difficult in management and because it has no special advantage over other and readier anæsthetics. It produces vomiting, and if not given with care it kills with rapidity.

(To be continued.)

ORIGINAL COMMUNICATIONS.

NOTES OF

INTERESTING CASES OF SURGERY.

By J. FAYRER, M.D., F.R.S.E.,

Senior Surgeon to the Medical College Hospital, Calcutta, and Professor of Surgery in the College.

Amputation of the Arm—Osteo-myelitis—Pyæmia—Death.

Sookan, a Hindoo Bunyah, aged about 40, was admitted into the Medical College Hospital on May 6, 1867, with a lacerated wound on the inner aspect of the left elbow-joint. The wound was about three inches long, transverse, and situated below the internal condyle of the humerus. It had been inflicted with a pickaxe. The muscles arising from the internal condyle were divided, and the ulnar nerve was also cut across. The joint was not opened; sensation in the little and ulnar side of the ring finger was diminished. The wound was brought together, and the arm was placed in a rectangular splint.

May 10.—The arm is much swollen; part of the lips of the wound united, but a collection of pus has formed in the wound. The integument of the arm is inflamed. The wound was opened out, and free exit given to all the pus. He has been in a feverish state during the last two days. A poultice applied to the wound, and a solution of nitrate of silver painted on the inflamed skin. ℞ Quiniæ gr. iij., tinct. ferri muriatis gutt. xv., every four hours. Bowels to be freely opened.

15th.—Swelling of the limb somewhat diminished; discharge from the wound more healthy; some burrowing of pus down the forearm; no fever to day.

19th.—Bowels loose; there is profuse purulent discharge from the wound. On examining the depth of the wound, the probe now passes into the cavity of the elbow-joint. Quiniæ gr. iij., Dover's powder gr. x., every six hours. He has port wine ʒiv. in addition to his ordinary diet daily.

20th.—His motions are of a dysenteric character this morning—red gelatinous mucus, and mucus discoloured by bile. The discharge from the joint is profuse. He is weaker. Omit the former medicines. ℞ Ipecacuanhæ gr. xx., bismuthi gr. v., now, and repeat in three hours. Turpentine stupes to the abdomen.

22nd.—The dysenteric symptoms are better; motions feculent. The discharge from the wound is much the same. He is weak and feverish at times, but as yet he has had no shivering. Repeat the quinine and Dover's powder. The arm is kept quiet in an angular splint and carefully dressed twice a day.

25th.—He had rigors, and after them fever, yesterday. There is evidently no hope of saving the arm, or of his general health improving whilst it is keeping up irritation; so that, as the best chance of saving his life, as indications of pyæmia were presenting themselves, amputation was performed through the lower third of the humerus. The tissues about the joint were too much disorganised, and his condition was too low, to justify excision. The bone seemed healthy where it was divided.

28th.—The feverish condition with rapid pulse has continued, especially towards the evening. He now complains of pain in the left side of the chest. Percussion note in the left infra-axillary region dull. Respiration weak, harsh under the left mammma, and in the right chest sonorous rhonchus. Quinine and sulphate of iron, gr. iij. and gr. ij., have been given every fourth hour. Sinapisms or stupes to the thorax; beef-tea and port wine every two or three hours.

30th.—Pulse 112, temperature 104°. Has a cough, and thick mucous expectoration. Free discharge from the stump, flaps are separating. Improving. Continue the medicine, wine, and food.

31st.—Pulse 128, temperature 105°. Had a rigor last night. The thoracic symptoms remain much the same. The bone examined in the stump; medulla not protruding, a portion of the end of the bone denuded of its periosteum.

June 2.—No more rigors; pulse and temperature keep at the same, 128, and 105°. The ligatures are separating; the medulla of the bone is now protruding slightly, and the end of the bone is discoloured.

5th.—Has had rigors again; respiration is quick and difficult; pulse weak, quick, and small, 140; temperature 103°. The wound looks flabby; all the ligatures have come away; heart sounds weak, and action irregular. Died at 5 p.m.

Post-mortem Examination following morning.—Chest: Lungs œdematous and emphysematous; the right lung congested posteriorly, but otherwise both were pale; the left lung contained three pyæmic patches of dead lung tissue, which, when cut into, were ashy-coloured, and saturated with puriform sanies, surrounded by an areola of congestion in the living lung tissue—one was on the anterior margin, and two on the surface of the upper lobe. The left pleural cavity contained about five ounces of serous fluid, with flakes of aplastic lymph. The upper lobe of left lung covered with a thick layer of aplastic lymph. Pericardium natural. Heart: A firm decolorised clot occupied the right auricle and ventricle, passing far into the pulmonary arteries. Abdomen: The liver was pale and slightly enlarged; the spleen was considerably above the natural size, as had been diagnosed before death—a condition so common in the natives of this malarious delta, and often so serious an obstacle to recovery after Surgical proceedings. The kidneys and other viscera were apparently healthy. The bone contained pus infiltrated throughout the medullary cavity.

Remarks.—Such is an example of the cases we are so often called on to treat in our Calcutta Hospitals, and such is the result that may so frequently be expected. The diseased condition of the spleen in this case was no doubt the great predisposing cause of the unfavourable progress of the wound, and of the stump after operation. Death occurred from pyæmia, due not only to osteo-myelitis, which ultimately made its appearance, but to the septic condition engendered before the amputation was performed, and which, in the enfeebled constitution of the patient, was unavailing. But the immediate cause of death was the formation of fibrinous coagula in the right cavities of the heart, and the consequently interrupted pulmonary circulation. The condition of the lung was, in this case, that which we nearly always find in fatal cases of pyæmia, especially from osteo-myelitis, and it gave evidence not only of the results of the pyæmic condition as observed in the dead patches which I have so often described, and have pointed out to be not abscesses, but portions of dead or disorganised lung-tissue infiltrated with puriform, not purulent sanies, but also of pulmonary embolism as observed in the emphysematous condition and partially blanched appearance of the lungs, which, though they had been furnished with an ample supply of air, had been deprived of blood in the pulmonary arterics. This condition of plugging of the right side of the heart no doubt often takes place in exhausting and blood-spoiling diseases; and it may be said that it is merely one of the latest events in the history of a life destroyed by such disease. But it is, I think, of even greater significance than this, for it may set in after a Surgical operation, and of itself prove fatal; for I have seen cases that gave every hope of recovery until this condition supervened, rapidly succumb under the embarrassed pulmonary circulation and consequent apnœa.

Disease of the Hip-joint.

Charles William B., aged 12, an East Indian boy, of delicate constitution, was admitted into my ward on May 3, 1867, with symptoms of active disease going on in the left hip-joint. It appears that about six weeks ago he sprained his left hip by falling into a ditch, but the pain was so trifling that he took no notice of it at the time. Two or three days later it appears that he had fever, which continued for three or four days, and then left him. About this time (he is not very positive in his account) he began to feel pain in the left knee-joint on the inner side, and shooting up the thigh. This pain, as well as that in the hip, from which he now suffers, has increased daily since then.

On admission, the boy looked delicate and strumous; he was thin and sickly-looking from pain, want of rest and nourishment. The left thigh was flexed towards the abdomen, and he lay with his knees drawn up towards the trunk. The limb was wasted, and there was swelling over the hip, with external heat, and excessive pain on the slightest touch. There was no history, nor any evidence, of the formation of pus

about the joint, but it must have been on the point of suppurating.

The least attempt to examine the limb caused agonising pain. He had had no sleep, it was said, for many nights. The constitutional irritation was extreme, and the boy was rapidly sinking under the suffering caused by the articular disease. I put him thoroughly under the influence of chloroform, and then cautiously and steadily extended the flexed limb until it was quite straight. The limb was already shortened, not merely from pelvic distortion, but actual absorption of the bone; but there was no dislocation or distortion of the limb. I then secured the extended limb in a long splint, extending from the foot to the axilla, and over it applied a starched bandage. Some citrate of quinine and iron, with cod-liver oil, and a good diet, were ordered, with two ounces of port wine daily.

May 4.—The pain is much relieved, although, after recovering from the chloroform, he felt it for some hours. He is so much relieved this morning, and slept so well last night, that he says he is better than he has ever been since the disease began.

10th.—No pain in the limb or joint, even on pressure or tapping the sole of the foot; no starting of the limb at night, as formerly. He is improving in every way; has a good appetite, and is getting quite strong.

It is unnecessary to continue details. The splint was finally removed on June 1, and the limb was found to be shortened one inch and a half. Partial anchylosis had taken place, and there was complete absence of any pain. He walked with a stick, limping from the shortness of the leg and from the wasting of its muscles during disease and confinement; but he was rapidly regaining the strength of the limb, and was discharged from Hospital on July 29. I do not think suppuration occurred at all; if it did, the pus must have been absorbed.

Remarks.—This is an excellent example of the beneficial effects of rest in the treatment of hip disease. The mischief was progressing rapidly when the boy came under treatment, and would soon, no doubt, have exhausted his strength. Forcible extension, practised carefully under the influence of chloroform, is most beneficial, and was in this case, as I have seen it in others, most successful. Rest was the only therapeutic agent of any importance—at all events of a local nature—required; under its influence, and with the support afforded by nutrients and a little iron and quinine, he rapidly recovered; the disorganisation of the joint was arrested, and repair accomplished. I found the ordinary straight thigh splint answer the purpose admirably, and I applied it just as it would be applied in an ordinary fracture of the thigh. The improvement was immediate, and steadily progressive, only leaving it a matter of regret that the opportunity of treating the case earlier had not been afforded.

Rapid Union of Fracture in an Old Man.

A very old man, named Nagore Ghose, a Hindoo, said to be 96 years of age, was admitted into my wards on September 11, with a fracture of both tibia and fibula a little above the left ankle-joint. The accident was caused by a carriage which knocked him down and passed over the limb. The foot was also bruised and excoriated. The fracture was simple and nearly transverse. He was a very old wrinkled man, almost quite blind from cataract, wonderfully active for his age, and healthy-looking. The fracture was put up in ordinary side splints, and the abraded foot dressed.

On September 20, ten days after the accident, the splints were removed and the limb examined; union was found to have taken place, but not firmly.

The splints were reapplied on September 25; they were again removed, and union was found to be complete.

On September 29 he was able to bear his weight on the leg; a starched bandage was applied a day or two later, and on October 11, exactly one month from admission, he walked out of the Hospital perfectly well. He had been walking about the ward for several days, and became impatient, so I discharged him.

Remarks.—The only point of interest in this case is the rapidity with which union took place in the fractured bones of the lower extremity at this great age. It was unattended with any symptoms of inflammation or constitutional disturbance; and repair seemed to be effected well and rapidly, notwithstanding the age and distance of the part from the centre of circulation, as it would have done in a young and vigorous person.

ON URETHRITIS.

By J. E. GRINFIELD-COXWELL, M.R.C.S.

Looking upon gonorrhœa in its earliest stage as a mild and local affection, many Surgeons are in the habit of treating it successfully by means of injection. Objections have, however, been raised against this mode of treatment being pursued in a later stage, when, from a relaxed condition of the lining membrane of the urethra, the disease assumes a chronic form under the title of gleet. It is alleged that, as a consequence of injection in the third stage, various accidents are liable to follow, as permanent stricture of the canal, yet the same Surgeons do not hesitate to use similar astringents to other mucous membranes which are equally sensitive, as in purulent ophthalmia. If the treatment in the latter case is unattended by any structural change in the membrane, how is it that diseased thickening is to be looked for in the former? I do not believe, nor is it in accordance with the opinions of most experienced Surgeons, that stricture in the urethra is the result of stimulating injections, but, on the contrary, it is the sequel of inactive treatment in the early stage, and a long-continued discharge being allowed to issue from a relaxed membrane. In the treatment of gonorrhœa in its early stage, when merely a pale and thin discharge is observed to issue from the canal—in fact, scarcely sufficient in quantity to agglutinate its lips—I recommend the following injection—℞ Argenti nitr. gr. ij., aquæ destillatæ ℥j.: fiat injectio—to be used in the evening and morning, and have found in my experience that patients have scarcely ever required the injection to be used oftener than twice or three times to answer my expectations. It is true that an increased inflammatory action is set up in the canal and its neighbouring tissues for a short time, which is speedily subdued by an antiphlogistic treatment, leaving the mucous membrane of the urethra in a healthy condition. In the third stage of the disease, when a relaxation of the parts has taken place, or if stricture is threatened as the result of inactive treatment, I have found injections of cupri sulph., zinci sulph., or a weak solution of argenti nit. to be most successful when thrown up with my urethral injector, which acts not only as an ordinary syringe, but, having tubes perforated at the point and sides, and of a catheter shape, in length about six inches, the injection can be diffused extensively over the mucous surface, whilst the tube acts as a stimulating dilator to the contracted canal.

To describe this instrument—the urethral injector, which I have had constructed by Mr. Fouracre, of South-street, Exeter—it consists of an electro-plated syringe, with three tubes in the case perforated at their points and sides, one being straight, of about two inches and a half in length, and adapted for the earliest stage of gonorrhœa; the other two, of a catheter form and about six inches in length, are intended for a later stage of the disease. They may be screwed on to the syringe, and replaced at the convenience of the Surgeon.

Heavitree, Exeter.

ON SOME POINTS CONNECTED WITH GENERAL PARALYSIS OF THE INSANE.

By NIEL GRAY MERCER, M.D. Edin., etc.,
Assistant Medical Officer to the County Lunatic Asylum, Lancaster.

In offering a few observations on some of the phenomena of general paralysis of the insane, I am conscious of approaching a subject to which the most learned of our Profession have devoted much of their time and attention. The subject is one, however, which must claim the careful consideration of all who are earnestly engaged in the study of psychological Medicine, and as I am here brought into constant intercourse in this great Asylum with so many typical instances of the disease, I am tempted to offer a few remarks having a practical bearing, which may not improbably be of some service to those who are just entering upon the study of mental diseases, or who have but limited opportunities of cultivating their acquaintance. This remark will especially apply to that part of the paper which refers to the nature and diagnosis of the delusions peculiar to this disease. Although this account of such delusions cannot pretend to scientific accuracy, it is but just to add that it is the result of careful and continued efforts to realise and estimate their practical importance.

There are some points worthy of most attentive study in

connexion with these peculiar delusions of general paralysis. A history of this disease should embrace a consideration of the forms of mental unsoundness with which it is commonly associated, and also of the precise degree of significance, as an element in diagnosis or prognosis, implied in a delusion of grandeur. These forms of mental unsoundness will here be described only in so far as they assist us to form a right conception of the varied phases which the delusions are known to assume.

1. General paralysis with its delusions occurs in combination with an attack of acute mania. In this form there are present all the usual symptoms of acute mania, with its incoherence of language, increased temperature of skin, sleeplessness, illusions, and hallucinations. Throughout the progress of such cases, we shall observe the incoherent expressions to be frequently interspersed with special allusions to the patient's own wealth, influence, or personal endowments and charms. As regards any particular virtue or power, however, there appears no fixity or stability of delusion. He will proclaim himself at one time, for example, to be the ruler of the universe; again he will declare that he is an opulent merchant; and quickly he will be transformed into a linguist who is familiar with all the languages of the earth. These morbid fancies will be found obtruding themselves at random, amid the wildest strains of unmeaning incoherence. They are constantly cropping out in the midst of the patient's discourses, but seem to have, individually, no more fixed existence in the mind than the ordinary delusions of intense maniacal excitement. Of this form of disease a very striking instance recently came under my notice. The patient is in the prime of life—34 years of age—and, for several months after admission into the Asylum, was the subject of an acute attack of mania with very slight intermissions. His eyes were brilliant and staring, his whole countenance lighted up with excitement, and his loquacity was perpetual. His nights were spent amid continual noise, and for several months, notwithstanding that the soothing effects of morphia were essayed, his name figured, for sometimes as many as forty consecutive nights, in the noisy list of the night attendant. He was dirty in habits, destructive to clothing, and prone to acts of violence, and the unfavourable prognosis—founded on a belief that the case was one of general paralysis—arose from an observation of his innumerable, though disconnected and by no means constant, delusions of grandeur; of the slight tremorous twitching of the oral muscles during speech, and of the intense feeling of self-satisfied glory which was sometimes depicted on his face when smilingly dilating on his greatness. In time the excitement disappeared, and tranquil nights were passed. Interest in dress and personal appearance gradually returned, and he rapidly gained weight. An interval followed during which this sad wreck of human intellect was really amusing, from the quaint, unobtrusive, and confidential manner with which he communicated his ideas of personal strength, influence, wealth, or accomplishments. His articulation has become muffled and is performed with difficulty; his power of progression is much impaired; a certain amount of reason, and a large degree of natural affection, are re-established; yet ambitious delusions exist, in the same disconnected manner, associated with progressive dementia. When combined with acute mania, therefore, these exalted delusions appear to be remarkably transient in duration: they succeed each other very quickly, and have no manifest connexion except in regard to the ambitious tendency which pervades them all.

2. We have instances of quieter forms of maniacal excitement combined with general paralysis, and these are a much more numerous class. Such patients are incoherent in their conversation, frequently of mischievous habits and propensities, and are often very assiduous in making hardly concealed attempts to escape from their place of detention. Their incoherence, however, is very much more subdued than in the other form, and is for the most part observed while the patients are engaged in conversing with others. Their delusions regarding riches, power, etc., are less changeable and less varied, and a particular delusion may be found to persist for a few days together. This, however, must be considered rare, for even in this class of unsound mind the delusions are, as a rule, by no means of a fixed or constant character; and although they are, perhaps, of a kind to justify the application of the term "monomania" to them, yet that term must not be taken in its strictest signification, since the delusions in question, though running in the one channel of wealth or power, do yet embrace an inconceivable variety of relations and objects. Thus I have in my mind, at present, the case of a patient in this Asylum who will state one moment that he is worth a certain large sum of money; in a very short time after, he will mention quite a different amount; and before very long he will declare he is not worth a farthing. He will now announce himself as a person of distinction, and, shortly afterwards, he will repudiate the idea. Although, however, the distinction cannot be nicely drawn, there is still, in the present class of cases, a greater degree of uniformity and consistency in the delusions, and the dementia is not accompanied with the intense excitement of acute mania. In the one variety, as in the other, there is progressive dementia. Memory, judgment, attention, reasoning, etc., are soon much impaired. The reins appear to be given to imagination or fancy, which are uncontrolled by the efforts of attention. It would often seem as if the patient seized upon every treasure conjured up by fancy, and became at once its possessor, and if he should be impatient at his detention, he is ready with fabulous bribes to reward the person who will set him at liberty. There is no cohesion or fitness about his ideas of grandeur, and I am not aware of any case of general paralysis, attended as it so frequently is with ambitious delusions, in which the morbid fancy is fixed or immutable, or accompanied by a condition of the intellectual powers at all approaching integrity. The statements made by the patients are often strikingly incongruous even in early stages of the disease, as when, for instance, they talk of presenting you with some vast estate or fortune, and, in the same breath, express an eager desire to go home and support, by working at their trade, a wife and family who are starving.

3. I have tried first to indicate the prominent features of acute mania in combination with general paresis and dementia; next those of a milder form of maniacal excitement, with similar delusions belonging to general paresis and dementia; and I now pass to consider a much rarer form of the disease—viz., general paralysis with dementia, unattended with discoverable delusion. Of this form of disease the instances constitute a very small minority; but we must conclude that cases do occur in which no delusion, strictly speaking, of grandeur or otherwise can be detected. We have the twitching of the muscles around the mouth, the hesitancy in speech, and steadily increasing impairment of the muscular functions, but the usual concomitant delusions, as I have said, are absent. These cases find their way into the Asylum on account of insane acts which have resulted from a trifling degree of occasional excitement, such as we also witness in the ordinary fatuity of advanced life. The patients in these cases will probably remark, in course of examination, that they feel stronger in health than they have ever done before, but no amount of interrogation will give ground for the inference that there are any delusions, unless, indeed, their mistaken impression as to their robust general health is to be viewed in the light of one. Keeping pace with the impairment of the muscular powers, the memory, judgment, and other mental faculties are gradually deprived of their vigour, yet no ambitious delusions spring up in the course of the illness. Of this variety of general paralysis I am now acquainted with at least two instances. The patients are tolerably well conducted, yet their tottering gait, and other symptoms, offer abundant testimony to the fatal malady which afflicts them. The fugitive and inconstant character of the delusions, when they do occur, might induce a qualification of the statement that they do not exist and never have existed; but careful observation has failed to elicit proof of their presence, and there is no account of them in the past history of the cases. An expert in lunacy, therefore, while attaching due importance to the exalted delusions in presence of more unfailing symptoms, would not trust to the fact of their absence or non-appearance should he observe in a given case the other symptoms of the disease. Though the non-occurrence of these delusions may be extremely exceptional, he would regard impairment of locomotion and of the powers of speech, with a more or less marked degree of dementia, as the more reliable features of general paralysis.

My experience of general paralysis occurring with symptoms of melancholia has been limited, and any cases I have seen exhibited merely those modified symptoms of depression of mind which are so frequently observed in ordinary senile dementia. In regard to the delusions there are two other points which are worthy of attentive study—viz., (1) the diagnosis between them and delusions which exist in another form of insanity, and (2) the possibility of their disappearance.

1. *Diagnosis of the Delusions.*—The alienist Practitioner would not, in all probability, confound the mania or monomania of grandeur, which is so usually united with general paralysis, with another very dissimilar form of unsoundness

of mind likewise characterised by a leading morbid idea of greatness. I have already endeavoured to point out that the delusions, in the former class of cases, are extremely uncertain and evanescent in their nature, although all of the exalted kind. The other form of mental derangement, in which exalted delusions—or, to speak more correctly, one influential, leading delusion, with some subordinate ones—are met with, conveys to the practised observer an impression that the disease is not connected with a condition of the nervous system which must terminate in death within a limited period. The delusion in these cases may be as stubborn as in the other cases the disease is fatal. In this less dangerous form of delusional insanity, the patient may indeed conceive himself to be a great ruler, or potentate, or divine person, or the heir to large estates of which he is unlawfully dispossessed, but he will be able to enter upon a train of argument in support of his assertion, which might be termed sound reasoning upon false premises. There is a high degree of fixity and constancy in his delusions not met with in general paralysis. He will defend his delusive position and thoughts by an appeal to fictitious facts and an ingenious process of reasoning. The general paralytic is always obtruding his delusions, but the other kind of monomaniac is more reserved, and broods over his, and gives his whole thoughts to them. Of the latter a good instance might be found in the case of the monomaniac whose case was so perplexing to the celebrated Erskine that, during a lengthened cross-examination, nothing indicating a lesion of the understanding could be detected. After a time, a person came into court who informed Erskine that the man fancied himself to be our Saviour, a delusion the existence of which was at once demonstrated. The multifarious notions of greatness which are present in general paralysis are repudiated in the other form of disease. The subject of the latter will make it the object of his life, perhaps, to establish his title to some vast estate or property. Such cases are instances of pure monomania in the stricter meaning of the term, and, although it can by no means be affirmed that, apart from the delusion which influences their conduct, they are free from any other impairment of intellect, there is yet no such marked loss of mental power as forms so conspicuous a feature of general paralysis. These examples of monomania are analogous to all others which, strictly speaking, can be referred to that class of unsound mind. A man who imagines there is a conspiracy among his relations and friends to poison him, and deliberately gives reasons for his suspicions; one who is convinced that by partaking of the meat offered to him he will make himself a cannibal; and another who has a persistent delusion that he is the Saviour of mankind;—such cases of comparatively uncomplicated delusions are typical examples of monomania. Patients with this kind of mental infirmity form, therefore, the more correct instances of reasoning monomania, and when their delusions are ambitious in tendency there cannot be much difficulty in distinguishing them from the rambling and unsettled ones which occur in general paralysis. A knowledge of the symptoms of general paralysis in the Profession at large exists, unfortunately, in very limited degree, and in forming an opinion in cases which come before them, it is obvious that Practitioners cannot be too guarded in estimating the importance of a delusion of grandeur, since that, with many kindred ones, may help to point out the presence of a most fatal malady, having a progressive tendency to death within a period which may be predicated, or, on the other hand, may be symptomatic of a mental malady, stubborn, probably, and intractable in its nature and sometimes hopeless as to cure, but which has no known tendency to influence the duration of life.

2. *May the Delusions Disappear?*—This question must be answered in the affirmative. Some learned Continental writers are not agreed on this point, and M. Bayle thinks it is to be settled by a reference to the stage of the disease. He says that "the ambitious characteristic is not present" in the so-called second stage. M. Rodrigues is of opinion that exalted delusions exist throughout all the stages. It is highly probable that the belief of the latter authority is the rule in nearly all cases; but, while it would appear that the delusions so frequently maintain their force until the very close of life, there can be no question as to the possibility of their completely disappearing at an early stage of the disease, while the paralysis continues steadily increasing, and the mental powers become gradually more obtuse and clouded. An extremely well-marked instance of this is at present under my observation. The patient, a man, 30 years of age, was admitted in July last. Delusions about money, property, etc., were present in full proportion, together with the other less fallible symptoms of the disease. After a time, from being unruly and troublesome, he became well behaved and tractable, and an excellent help to the attendant in the ward. One day in this improved state, he freely confessed that, on admission into the Asylum, and for some time after, he was possessed with many strange fancies for which there was no foundation; but now, he said, he was quite free from them. He smiled while stating correctly what these fancies were—such as his intention to present his attendant with many splendid farms and vast sums of money. But, although thus obviously free from all delusions, the facial and physiognomical symptoms, and those in the tongue and articulation, had all the while been gaining ground, and were now painfully prominent. There was not observed in this case any relapse of ambitious delusions, although it has been very carefully watched; and while of late the paralysis has been most rapidly and dangerously increasing, yet he has remained free from delusions for upwards of six months. I am unable to say in what proportion of cases this complete disappearance takes place; and, although it does not seem that the circumstance is of any importance in prognosis, it is still gratifying as a partial amendment in the condition of the unfortunate patient's mind. In the case referred to, there has been latterly great cerebral obscuration and remarkable increase in the symptoms of paralysis, which can only have one termination at no distant day.

This case has been more particularly referred to as constituting the most striking example known to my experience of the total disappearance of ambitious delusions. But it is not an isolated case. Other cases, less marked, are at present in this Institution, which, on admission, presented similar aberrations of fancy unchecked by the will, and these, too, have gradually passed away. Whether or not they get rid of their delusions, however, it is interesting to note the beneficial influence of well-ordered asylum regulations on the unfortunate subjects of general paralysis. The unruly and mischievous frequently grow comparatively quiet and manageable; those who are disposed to run away become settled and contented; and it may truly be said that the most distressing cases often undergo a most gratifying change.

In conclusion, I beg to acknowledge my obligation to Mr. Broadhurst, F.R.C.S., Superintendent of this County Asylum, for his permission to make use of the cases which have formed the basis of this paper.

County Asylum, Lancaster.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

NOTES OF VARIOUS CASES FROM MR. HUTCHINSON'S CLINIQUE.

No. 1.—Keratitis from Inherited Syphilis without Peculiarities of Physiognomy.

Amongst the cases at present attending as out-patients under Mr. Hutchinson's care are several instructive cases of interstitial keratitis which deviate somewhat from the general rule. One of these is that of a rather handsome young woman, of good complexion and good features, who applied with keratitis of the syphilitic form in the left eye. The teeth were characteristically malformed.

Mr. Hutchinson gave a confident diagnosis that the disease was syphilitic, and the mother of the patient having been requested to attend, a clear history was obtained. As the young woman was in vigorous health, treatment by the bichloride was adopted, and with very satisfactory results. The disease increased for the first fortnight, and the other eye became irritable, but after this both rapidly improved, and now, at the end of two months, both corneæ are almost perfectly clear.

The attention of the students has frequently been asked to this case as a proof that we must not always expect hereditary syphilis to betray itself in the physiognomy. The girl would certainly be picked out as one of the best-looking amongst a roomful of patients.

No. 2.—Keratitis from Inherited Syphilis, without Peculiarities of Physiognomy or Teeth.

In another case a girl, aged 7, was brought with keratitis, which Mr. Hutchinson diagnosed as of the interstitial or syphilitic form. Her physiognomy was, however, not peculiar, and her teeth were of good size and form. Her mother gave the history of suspicious symptoms in infancy, and stated that the child was under the care of Dr. Dobell for them. On application to him, Dr. Dobell was courteous enough to send a report of the child's illness, fully confirming the diagnosis. He had attended both the mother and the child for syphilis. This conclusive testimony was very valuable in the absence of the usual physiognomical peculiarities. We may perhaps go further, and suggest that the careful treatment (by mercury) which the child had in infancy has perhaps been the means of much diminishing the severity of the disease, and thus preventing the production of the characteristic physiognomy and teeth.

In this case, as well as in the preceding, the attack of keratitis has been less severe than usual, and in each it has fallen chiefly on only one eye. In the latter case the treatment has been by the iodide of potassium, two grains three times daily.

No. 3.—Extensive Changes from Choroiditis Disseminata without any Subjective Symptoms.

A very instructive instance in proof that very extensive disease of the eye may be present, without its subject being aware of it, occurred a few weeks ago. A man of 25 applied for a scratch of the cornea. Slight iritis followed, and Mr. Hutchinson several times drew attention to the peculiarity of iritis resulting from a very superficial injury. The iritis disappeared under treatment, and the pupil could now be dilated by atropine to a mere rim. So entirely had the adhesions disappeared that it became of interest to examine if any uveal pigment had been left on the lens, and for this purpose he was taken to the ophthalmoscope room. It was now unexpectedly discovered that in both eyes were very extensive changes from choroiditis disseminata. Large patches of choroid had been absorbed, leaving pigment accumulations and exposed sclerotic, and still larger patches were seen where only the choroidal epithelium was removed. The patches were scattered irregularly over the fundus in each eye, and some of them were very near to the yellow spot, without, however, quite involving it. The man gave no history of any attack of eye-disease. He would not admit the existence of any single subjective symptom, and insisted that he could see as well as any one. On examination, it was found that he could read "brilliant," and in the distance could see almost perfectly. Although all the choroidal changes were of old standing, yet their presence might probably be considered to explain to some extent the occurrence of iritis from so slight a cause, denoting as they did a constitutional predisposition (syphilis?).

No. 4.—Acute Periostitis of the Orbit after Scarlet Fever—Displacement of the Eyeball.

A little boy, aged 5, was brought with his left eyeball pushed outwards and downwards by a very large swelling in the orbit. The distortion was very great. Mr. Hutchinson made an opening into the swelling (which freely fluctuated) and let out a large quantity of pus. The inner wall of the orbit was found to be extensively denuded of periosteum. The boy had only just recovered from scarlet fever, and still looked very ill. Since the abscess was opened he has much improved in health, and the eyeball has returned to its place. There is still a sinus leading to dead bone.

No. 5.—Cases of Tobacco Amaurosis.

Several very good examples of the form of amaurosis supposed to be due to tobacco are now under care. In one of these the patient, who is a sailor, has had not a single symptom of nervous disorder, excepting the gradual failure of his sight. He is in excellent health, and had always been temperate in stimulants. He had smoked very heavily.

DEVON AND EXETER HOSPITAL.

SUCCESSFUL CASE OF OVARIOTOMY.

(Under the care of Mr. ARTHUR KEMPE.)

For the report of this interesting and important case we are indebted to the operator, Mr. Kempe, Surgeon to the Hospital.

Anne R., aged 24, an unmarried dressmaker, living in Exeter. She had always enjoyed good health till the summer of 1866, when she first perceived enlargement of the abdomen. From this time till April, 1867, she steadily increased in size, and was tapped in that month by Mr. Roberts, one of the Surgeons of the Dispensary, who drew off eight quarts of a dark-coloured fluid highly albuminous. She soon filled again, and in July was a second time tapped by Mr. Roberts, who drew off twelve quarts of a similar fluid. Up to the first tapping the catamenia had been regular, but scanty; since the operation, they had ceased. Having heard of the radical cure, she was most anxious to have the operation performed, and was fully aware of all the dangers consequent on it.

She was admitted into the Hospital on September 21. At this time she was much distended, and was most desirous for some relief; but as I was not prepared to perform ovariotomy, I tapped her on the 23rd, and removed fourteen quarts of a somewhat similar fluid to that which had been drawn off on the two previous occasions. On the removal of the fluid, a careful examination of the abdomen was made, and a multilocular ovarian cyst of the left side was diagnosed. She soon became again distended, and, with the consent of my colleagues, it was decided to perform ovariotomy.

October 7.—The operation was performed in the presence of a limited number of my Professional friends. The temperature of the room having been raised to 70°, the bowels having been freely relieved, chloroform was administered by our careful House-Surgeon, Dr. Huxley. I first passed the catheter, and then made an incision on the linea alba about four inches in length, terminating about one inch above the pubes. On dividing the peritoneum a few drops of fluid escaped. The tumour was then exposed. On introducing the finger between the cyst and peritoneum many parietal adhesions were torn through. The cyst was now tapped, and eight quarts of fluid drawn off. In doing this the cyst gave way at a point above where the trocar was introduced—probably at the part where it was last tapped—and some fluid made its escape. The cyst having been emptied, it was found impossible to remove it in consequence of its adhesions, and, in order to break them down, it was necessary to enlarge the incision upwards and to introduce the hand. The adhesions were very general, especially on the right side, but, with the exception of one very tough band, they were easily broken down. The cyst was now steadily drawn out. It weighed 3 lbs. and 10 oz. One omental adhesion came into view, and was readily separated. The left pedicle was then exposed, and found to be broad, thin, and long. A needle armed with a strong double ligature was passed through it, tied on either side; it was then divided. The stump was dropped into the abdomen.

Not a quarter of an ounce of blood was lost. Nothing was seen of any of the abdominal viscera during the operation. The right ovary was not examined. Inasmuch as there was little or no escape of blood or fluid into the pelvis, it was not sponged out. The wound was closed with four pins passed through the muscles and peritoneum, and four superficial sutures of iron wire. A pledget of lint and cotton wool was placed over the pins, and secured by four broad straps of Dreadnought plaister, and all kept in place by a many-tailed flannel bandage. A two-grain opiate suppository was introduced into the rectum, and she was put back to bed, in which had been placed three or four hot-water india-rubber bottles.

For the first twenty-four hours she had constant vomiting, the result of chloroform; and though she was liberally supplied with ice it did not seem to have much influence over it. She experienced very little pain, and from the cessation of the sickness daily improved without any unfavourable symptom. I should here state that the House-Surgeon showed the greatest kindness in this case, and sat up with the patient nearly the whole of the first two nights. An opiate suppository was introduced every night for a week, and the catheter passed every eight hours for the first ten days. On the third day she wished for boiled whiting, which she enjoyed much, and subsequently had meat or fish, with a glass of ale daily. On the fifth day the bowels were relieved with an enema. The pins were removed on October 11, when it was found that the wound was healing nicely. The superficial sutures were allowed to remain in a few days longer. A lotion of carbolic acid was applied, and the wound dressed daily. It was entirely healed at the end of the fourth week.

At the end of the first week she sat up in bed working crochet, and I am happy to say that she left the Hospital quite well on November 14.

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Medical Times and Gazette.

SATURDAY, DECEMBER 7, 1867.

A REPLY TO DR. LAYCOCK ON BORDIER'S INSANITY.

We are truly sorry that it has been our misfortune to fall under the censure of the learned Edinburgh Professor, whose third letter on the subject of Bordier's conviction we have unhesitatingly printed to-day, notwithstanding that we had considered that the subject was closed so far as our columns are concerned. On the other hand, we do not regret in any way that we raised the question of the murderer's insanity, since our various articles on the subject have been the means of eliciting the views of so distinguished a correspondent as Dr. Laycock, as well as of experienced alienist Physicians, such as Dr. Wood and Dr. Maudsley, upon matters of deep social importance. Dr. Laycock criticises us severely; he gives no quarter, and asks none. Contenting himself, in his former communications, with animadverting upon some stray expressions which met his disapprobation, he now falls back upon our original article, and taking up the cause of Mr. Simpson, whose evidence at the trial we took the liberty of criticising, he accuses us of deserting our standard, and of entering the lists of controversy as the partisan of the lawyer instead of ranging ourselves on the side of Physic. He charges us with using the forensic in place of the Medical method of solving a problem of criminal lunacy—a serious charge indeed, when we find Dr. Laycock explaining this to be the method equally of the advocate and the judge and the legislator, each of whom, according to him, "seeks truth if that will prove the proposition he has to establish; he seeks to obscure it if it be opposed to his views." He surely cannot think it probable that we should meekly submit to such a rebuke as this. We can assure Dr. Laycock that we confess none as our superiors in the love of truth for its own sake, and that it is because we love it, and because we desire that fanciful theories, whether of alienist Physicians or of others less experienced, shall not be palmed off as truth, that we have written what we have, and as we have.

We will not retort upon Dr. Laycock the charge that he has wilfully misinterpreted our remarks. Dr. Laycock is an honourable adversary, incapable, even in the heat of argument, of making a feint such as this, but we do say that he has somehow wofully failed to see their general bearing, or the actual position that we have taken up. He fights manfully enough, but against a shadow of his own creation. This will be apparent as we comment consecutively on the several paragraphs of his letter.

1. He tells us that, blaming Mr. Simpson for giving an opinion that Bordier was insane on the strength of a very brief interview, and otherwise on insufficient data, we volunteer our "diagnosis" in opposition to his without any personal interview whatever. Now we beg leave to say that we volunteered no "diagnosis" at all. In our capacity as journalists we volunteered, as was our duty, a criticism of Mr. Simpson's evidence, to every word of which we still adhere, but certainly no diagnosis. Our position was, and is, simply this:—The world is peopled with beings endowed with a capacity of knowing right from wrong—moral right from moral wrong, and, as the result of education, legal right from legal wrong. And, amongst the many millions thus endowed, there are a few unhappy persons by whom this capacity is lost, or perhaps has never been possessed. The former are responsible, the latter irresponsible agents as regards those matters in respect of which the power referred to is in abeyance. But, inasmuch as most people belong to the former, and but very few comparatively to the latter class, we are correct in assuming that in any individual the capacity and its accompanying responsibility exist, unless the contrary be distinctly proved. We have held, then, not in Bordier's instance alone, but in others also, that the *onus probandi* lies on the shoulders of those who maintain the insanity and irresponsibility of the criminal, not on us. We have said, then, and maintain, that the evidence of Bordier's insanity was wanting. We say so still. In all cases we assume sanity as the normal condition of man until the reverse or exceptional condition is established. The law does the same, and if this is arguing forensically instead of medically, which it certainly is not, then, and then only, do we side with the lawyers.

2. The second proof which Dr. Laycock advances of our adoption of the forensic method of inquiry may be met by a similar reply. We made no diagnosis. It was not possible. He calls upon us to prove a negation—namely, that Bordier was not mad. Is it, in Dr. Laycock's opinion, true that most murderers are mad that he should ask us to do this? If hereditary taint existed in Bordier's case, it was for Mr. Simpson or those who uphold him to show it, and when they had shown it no more would have been proved than that there was an admitted predisposition to insanity, the proof of which condition, as a fact, would still demand evidence of a different kind. Does Dr. Laycock hold that a murderer whose father was insane, for instance, is necessarily irresponsible for his crime? If he does, it would be an assumption no less glaring than that a man who chances to be dyspeptic or plagued with an anal fistula is to be held irresponsible because, as a concomitant of these maladies, he becomes low-spirited, discontented, fractious, and quarrelsome. We demand, before we admit irresponsibility, that proof shall be forthcoming, not only of the existence of these possible causes, but that they acted as causes in the individual instance by the production of an undoubted result other than a crime which a sane person reasoning in a vicious groove might commit.

3. It is not at all necessary for our defence that we should deny the existence of such a form of disease as "phthisical mania," any more than that we should deny insanity to be an occasional sequel of fistula *in ano*. But inasmuch as most persons suffering from tubercle in the lungs are not maniacal, and most persons suffering from anal fistula get well after operation without any mental disease following, we say again that we are justified in demanding evidence in any presumed case that insanity really resulted from the phthisical condition in the one instance, or from the fistula in the other. We agree with Dr. Laycock that the Medical method would leave no practical doubt as to the meaning of the term "melancholia," but surely he will not go so far as to say that it means, as generally used in the Profession, nothing more than lowness of spirits, or that mere lowness of spirits will relieve a man of responsibility for cutting his wife's or his friend's throat.

4. In the next paragraph, in which he defends Mr. Simpson against our critique of the inference he drew from the calm manner in which Bordier acted after the commission of his crime, Dr. Laycock quotes Griesinger, but incorrectly. The passage runs correctly thus:—"In regard to a great many of these cases, including those which belong to the following

paragraph, there is a most important and characteristic circumstance which we have already adverted to in speaking of suicide—viz., the freeing of the patient from his painful emotions and frightful thoughts by the fact that the deed committed has become objective to him; the ease and calm which the patient gains by the manifestation of his disposition, by the accomplishment of the deed—a circumstance which gives to these acts what has been termed a critical significance." Now, read thus, there is no question that the cases referred to are not similar to that of Bordier, who manifested no painful emotions or frightful thoughts prior to the commission of his crime, and who did not *gain* calmness and ease by the accomplishment of the deed—a deed which he premeditated calmly enough, and the preparation for which he calmly made. Example XXV. in Griesinger's book, which shortly follows the passage we have quoted, shows us at once the sort of case that the author had in his mind.

5. We are quite prepared to admit—indeed, we have ourselves often insisted upon—the value of "a change in the mental disposition and conduct of an individual" as one of the marks of insanity. The man is "beside himself." But we never held this change to occur only in insanity. A perfectly sane man may exhibit a similar change. The Apostle Paul was told that he was "beside himself" when the change in his conduct and modes of thinking was dependent upon a cause with which insanity had nothing to do. Before we can rely upon the diagnostic value of such a change, we must be careful to discern whether any other explanation of the change is possible or probable. Again we say we are not, and have not been, engaged in proving Bordier's sanity, but we repeat that his conduct was explicable as that of a sane man on the basis of his confessed atheistical sentiments and the romantic element in his Gallic mind.

6. With regard to Dr. Laycock's sixth paragraph, we have only to say that we did not advance the failure of the prison officials to perceive any evidence of insanity in proof of Bordier's sanity, but in contradiction to the inference of Mr. Simpson that he was insane. What we desired to convey was merely this, that the observations of these gentlemen gave no support to the view entertained by the Medical witness.

7. Dr. Laycock accuses us of not distinguishing between facts and theories, claiming Mr. Gowlland's statement in the *Star* as one of fact, or based upon fact, while we call it a "novel theory." Perhaps we did not express ourselves so clearly as we might have done. Mr. Gowlland says:—"Knowing the great despondency there is in these diseases of the rectum, and having seen in my practice cases of melancholia and suicidal mania as a result, I believe I have sufficient evidence in my experience to justify me in stating that in my opinion Louis Bordier"—"*might* have been quite beside himself when he murdered his wife?" Oh, no—"*was* quite beside himself at the time he committed the act." How does he connect the act committed three months after leaving the Hospital with the mental depression—for it does not seem to have been insanity then—existent while suffering from fistula in the Hospital? Why, by his experience that melancholia has in some cases resulted from disease of the rectum. So, because Bordier was, like most other persons similarly diseased, depressed in body and low-spirited, he also, like the few, laboured under insanity afterwards when his disease was cured. Were we wrong in our inference that Mr. Gowlland had practically taken up a theory which connected homicidal mania with fistula? Was it a fact of general application which he was illustrating by Bordier's case, or was it a theory which, on insufficient data, he had constructed in his own mind?

We need not carry our reply to Dr. Laycock any further. He has thoroughly mistaken our position. We have never attempted anything so absurd as to prove Bordier's sanity, and hence are not open to his censure of our method. All we have said is that the evidence of his insanity was deficient. We say now that until a criminal be proved to be insane we hold him to be sane, and, with the law of England and common sense to back us, we shall continue to do so. Possibilities and remote probabilities neither we nor the law regard when facts are wanting to give special force to the latter. Where proof of premeditated crime is forthcoming, the law very properly convicts the guilty one, unless it can be distinctly shown that at the time of its commission the individual was not morally responsible for his actions. It is the part of the Crown, in the exercise of its prerogative, to weigh and estimate the more delicate variations of moral guilt, and to commute or modify or remit the penalty in accordance with moral justice.

ABSOLON *v.* STATHAM.

In again noticing this trial we have no intention of burdening our columns or of wearying our readers by going at all fully or minutely into its details; these are but too well known, as the case has been before the public for more than a year. But before it is forgotten in the hurry and press of life and events, or attempts are made to banish it to the limbo of disagreeables that one wishes to forget, it may be well to devote a few moments to the consideration of its special characteristics, and of the cruelty and injustice of like actions.

We have already spoken of it as distinguished for its utter groundlessness and gross injustice, and we are sure that no one who has read the reports of it with any closeness and attention will dissent from that opinion. We venture to affirm that the plaintiff's legal advisers could not help being fully aware that the case had not a leg to stand on—had literally no foundation or justification whatever. They knew that of the Medical witnesses whom they themselves could call only one, Dr. Kelly, could give them the least scrap of support. And the shred of (Medical?) support that Dr. Kelly could give amounted to this—that some twelve years before the operation, when no one knew very much about chloroform, and he practically knew nothing, having never administered it, he had tried to give the plaintiff chloroform, and had been so frightened by the stage of excitement that he would not have given it to her again, even after the lapse of so many years!

The plaintiff's legal advisers, moreover, had succeeded in tracing the Sister, one of the Nightingale nurses, who was present during Mr. Statham's operation, had sent a clerk to take her evidence, and had found that it utterly disproved the charges that the chluroform had been administered against the plaintiff's will, and that any violence had been used towards her. They had taken the plaintiff to consult Sir W. Fergusson, and had found that his evidence would be entirely against any charge of malpraxis. What conceivable grounds had they then for persisting with the action? It would seem that their sole chance of a verdict lay in the hope that, by passionate and unscrupulous appeals to ignorance, prejudice, and feeling, a jury might be persuaded that Mr. Statham's exceeding kindness to the plaintiff had its rise in some consciousness of a wrong done to her, and that, though for long weeks after the operation her letters to the defendant only expressed her gratitude for his goodness. Even with a common jury the effort to do this was only so far successful that the jury was so bewildered as to be unable to come to any verdict at all. Yet an action which lawyers could not help knowing to be utterly groundless and unjust was persisted with, and carried to trial a second time. At the second trial the jury were perfectly satisfied before the end of the defence, and wished to stop the case, but the plaintiff's counsel refused to allow this. We know, indeed, that some of the jury were quite satisfied at the close of the plaintiff's case that it was altogether untenable, but no intimation of this was made to the Court. However, the plaintiff's counsel insisting on his right to fight on and make his final appeal to the jury, the trial continued through nearly the whole of the

third day, and then the verdict was at once given for the defendant. And this brings us to the second point we wish to notice. When, after these long years of wearing anxiety and mental suffering, the defendant to this action gets his verdict, there is not a chance of his recovering one penny of his costs, and he remains six hundred pounds out of pocket!

Who will deny that here great and cruel injustice has been wrought by means of the law? And yet the case is only a very flagrant example of a not very uncommon, but crying and oppressive evil. Most unjust and distorted, or altogether false and groundless, accusations are made against Medical men by gratuitous patients out of ingratitude or spite, or in the hope of extorting money. Lawyers are found to take them up, however weak or bad they are, and force the Medical man into the weakness of a compromise, or the harass, anxiety, and expense of a defence at law, though certain that not a sixpence of his costs can ever be recovered from his accusers. Sometimes, no doubt, such an action is bought off; for, besides the mental wear and anxiety, and, thanks to the charity of man, the Professional injury too often caused to Medical men by their having to appear as defendants to a charge, however groundless, of malpractice—besides all this, to many a Professional man the cost of defence would be almost ruinous. Some remedy ought assuredly to be found for such evil and wrong as this. It would of course be impossible to prevent unjust actions so long as lawyers can be found to bring them; but might not some means be found of insuring the defendant his cost if he gain a verdict, so that, at any rate, he would not be fined for defending his fair fame? It has been suggested that in all such actions both sides shall be required to pay into court a sum estimated to cover costs; but to that it is objected that sometimes honest poverty might be barred from seeking redress for a real wrong. The only other remedy we can think of is, we fear, hopelessly Utopian—is that the attorneys on each side should be held responsible for the costs! In sober seriousness, however, we do hold that as the injustice and evil are here wrought through lawyers and by the law, it does behove lawyers, for their own credit, to try and find a remedy.

We are glad to learn that the Profession is willing again to come forward to Mr. Statham's aid, and that he will gratefully accept their help. Six hundred pounds may seem a very large sum for costs, but it must be remembered that there have been two trials, and on a third occasion also all the expense was incurred of having counsel, attorneys, and witnesses in waiting for two days, when at last it was found that a jury could not be obtained. The greater success which followed the defence in this last trial has been partly owing to the fact that the judgment of a special jury is more to be trusted and less likely to be warped than that of a common one, but mainly to the overwhelming evidence in favour of Mr. Statham's conduct in the case which was presented by the Medical witnesses on both sides.

THE BUTCHERS' PLEA FOR PRIVATE SLAUGHTERING IN LONDON.

Is the slaughtering of animals for human consumption upon the private premises of butchers within the metropolitan area a necessity of the trade? We see that at a meeting of butchers and salesmen held on November 26 a Mr. Morris asserted that it was so, maintaining at the same time that the use of private slaughter-houses was by no means injurious to the public. The occasion of the meeting was a proposal on the part of the Corporation of London to extend their conveniences for slaughtering beasts at the Metropolitan Cattle Market, and a rumour that it was the intention of the Government, while removing the recent restrictions imposed upon the importation and transference of foreign cattle, to provide for the slaughter of such beasts at the ports of debarkation or at the abattoirs of the Cattle Market at Islington. We are not now about to enter into the question of whether the public of the metropolis are or are not annoyed, or injured, or inconvenienced in any way by the present arrangements for private slaughtering; we only seek for information as to its assumed necessity. We should be glad to hear what can be said by practical men upon this head, because we ourselves hold to the belief, so far as our experience and observation go, that it is not a necessity. At all events, it is a fact that there is in London a large number of persons who do not kill on their own premises selling the best qualities of meat at full prices to private families, and yet who appear to thrive commercially, notwithstanding that they either purchase in the dead-meat markets or have the live beasts they buy in the market slaughtered at a public slaughter-house. Again, can it fairly be said that private slaughtering is a necessity of the trade, when, in certain large cities that can be named, it is either entirely abolished or very greatly restricted? An instance of great restriction in the practice is to be found in Liverpool, where only a very small number of butchers when the population of the place is considered, are permitted by a special licence to slaughter anywhere but at the public abattoir. We learn from Dr. Trench's report for last year that, out of 342,056 animals of all kinds slaughtered in the borough, only 152,952 were slaughtered elsewhere than at the public abattoir; and so satisfied are the authorities that all the slaughtering might be advantageously carried on outside the borough that they, this year, applied to Parliament for an Act to enable them to make this improvement. The Bill was lost only through the opposition of the local board of the place where it was proposed to establish the abattoir for the whole borough. In Paris and Brussels private slaughtering was totally abolished many years ago. In the former city, in the time of the first Napoleon, public abattoirs were established at various convenient spots just within the walls, and most of these are now closed, the slaughtering for the whole of the city north of the Seine having been gradually concentrated in one spot—namely, at the new cattle market at Villette, just within the fortifications on the canal d'Ourcq. At Brussels, the slaughtering for the whole city is carried on at the public abattoir just outside the boulevard which encircles the city. Neither in Paris nor in Brussels is private slaughtering therefore found to be a necessity of the trade. In fact, except that the butchers who slaughter their own beasts in Paris have to spend a limited portion of their time at the public abattoir, no inconvenience whatever has arisen from the established arrangement.

The most serious objection we have heard made to the abolition of private slaughtering is that it would be impracticable to dispense with it in hot weather, on account of the damage meat is likely to undergo in its transit from the abattoir to the butcher's shop. Now we believe this is a source of inconvenience the importance of which is much exaggerated. We have made personal inquiries of butchers and slaughtermen in Paris, and we were assured on all hands that they had nothing to complain of on this score. But then the construction of the slaughter-houses and the summer arrangements are such as to facilitate the proper setting and cooling of the meat prior to removal. This is the true secret of success. Insure this, and arrange for rapid transit without bruising, and we see no valid reason why meat slaughtered even at Harwich should not be brought up, under proper arrangements, cool and sweet and delivered in good condition at the shops of the London salesmen. Surely there could be no difficulty in designing a form of carriage in which the meat could be suspended upon hooks, and even, if necessary, kept cool by the evaporation of water from the coverings of the truck.

If, as we believe to be the case, the future safety of our native herds depends upon every proper precaution being adopted against the insidious introduction of foreign diseases with foreign beasts, and the slaughter of such beasts at the place of debarkation, we think that a strong body of evidence must be forthcoming to contradict the results of experience such as we have briefly sketched.

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ARMY MEDICAL DEPARTMENT—RECENT GENERAL ORDERS.

We observe among recent general orders issued by the Duke of Cambridge the following bearing upon the duties and position of Medical officers in the Army. The great desideratum of the military Medical service—namely, early retirement on liberal terms—still remains to be accorded in the Warrant of the future :—

1. Medical officers are for the future to be exempted from serving as members of all boards, except Medical boards. Should a Medical opinion be required by a military board, reference must be made to the Medical officer, who will furnish his report in writing or give evidence in person if thought necessary.

2. Medical officers having the relative rank of field officer are to provide themselves with chargers and horse furniture, and to appear mounted when required to attend parades.

3. On official occasions, when guests are invited to a mess in the name of the officers of a regiment, the senior combatant officer must always preside, and no second place is to be recognised.

Article No. 1 must be looked upon as a mere effort of expediency to steer between two dangers—viz. : First, that of compelling a Medical officer to act on a mixed board in a position subordinate, in some instances, to a junior combatant officer, whose privilege it is always to preside, irrespective of the relative titular rank of the Medical officer ; secondly, the still greater danger, in military eyes, of according to any but the combatant ranks of the Army a position which actually involves the exercise of a degree of military authority beyond the sphere in which the Medical officer as such has to act.

We cannot but see that Medical officers gain by the exemption. We have always endeavoured to impress upon our brethren in the public services that their social position must in a great measure depend upon their social and Professional acquirements, and that, since the combatant officers are so jealously watchful against any supposed encroachment upon their style and dignity, it is more sensible and becoming in all Medical officers who have the interests of the public service really at heart, to coincide cheerfully and readily with the harmless foibles of the sons of Mars.

At the same time, we are doubtful as to whether the rules above announced will in their practical working be found to be conducive to the welfare of the service. Many instances will occur in which the opinion and suggestions which might be volunteered by a Medical officer, as member or president of a mixed board, will be lost to the purely military board. In military courts of inquest in India, which, we are informed, have hitherto always been composed of two combatant and one Medical officer, we fancy that this difficulty will frequently be experienced, unless the anomalous practice be introduced of one witness—the Medical—being present during the proceedings and suggesting apposite questions to the court, or himself putting them to the other witnesses. This may be obviated in either of two ways—viz., by composing courts of inquest entirely of Medical officers, or by appointing a Medical officer of attainments in Medical Jurisprudence to act as assessor to military courts of inquest, in a manner analogous to that in which a deputy judge advocate acts in a court-martial. The latter course commends itself to our common sense. We do not see how otherwise a grave difficulty, and possibly in some cases serious injury to the interests of justice, can be avoided.

Article No. 2 may be found to bear hardly on Medical officers of limited pecuniary means, or whose equestrian education has been neglected, but we do not see how the authorities of the Horse Guards could have acted otherwise under the questionable pressure put upon it by a section of the department. In India we are sure the regulation will be hailed with pleasure by all Surgeons of infantry regiments, as we fancy they will thereby become entitled to the same rate of horse allowance—viz., Rs. 30 for one horse—as is authorised(a) to the field officers of "European and native infantry and foot artillery employed in the regular line of their military duty." Every Medical officer in India has a horse as a matter of course, so that the allowance for forage will be very acceptable.

Article No. 3 is also of an expedient nature, but we do not think that Medical officers can complain of its tendency, which is to give a fair field and no favour to every officer to find his own level in the society of the mess, according to his social and Professional acquirements. When a man is conscious of being deficient in such qualities, he will be glad not to have "greatness thrust upon him," and whoever possesses them is sure to reap full benefit. We do not think Medical officers in the army should aspire to any other position or precedence than that which their social worth and Professional attainments may earn for them. These are higher than the highest of the honours pertaining to the *rank* and not to the *man*.

THE WEEK.

TOPICS OF THE DAY.

The discussion in the House of Lords on Lord Devon's motion for the production of the Report by the Medical Inspector of the Poor-law Board on the state of county Workhouse Infirmaries is, no doubt, a prelude to legislation which will largely increase the power exercised by the Poor-law Board over the management of these Infirmaries. We do not think from the tone of the debate that there will be any real opposition to a well-considered and moderate scheme which will give the Central Board authority to provide what is necessary for the treatment of the sick poor. But it is evident from Lord Houghton's speech that there will be a strong opposition to anything that savours of indiscriminate extravagance or sensational legislation. Whilst the hardworking and provident poor are taxed to support the less provident, it would be a monstrous piece of injustice to wring from the former the means of purchasing luxuries for the sick pauper which the ratepayer cannot obtain for his own wife and children when ill. On this ground, therefore, it cannot be expected that Workhouse Infirmaries should possess all the expensive appliances which private benevolence has supplied in our charitable institutions. Justice and utility—not charity—are the guiding principles recognised by political economy.

The case in favour of the Guardians of the Farnham Union Workhouse has been proceeding during the present week. As far as the evidence has come before us, it does not appear to weaken many of the charges made against the management ; especially is this true in reference to the condition of the tramp wards. But, on the other hand, it has been proved that some of the conditions under which the inmates have been supposed to suffer in the Workhouse are exactly the conditions in which the working classes of the district are accustomed to live in their own homes. Thus, it was sought to arouse public indignation by representing the wards and nurseries of the Workhouse as floored with red bricks ; but it is proved that all the cottages of the neighbourhood have red brick floors, and the children of a large number of the ratepayers are accustomed to no other kind of flooring. Again, stress was laid upon there being no toys provided for the use of the pauper children ; but to this the Guardians answer that many of the poorer ratepayers would find it impossible to buy toys for their own children. We all know that toys are an element in making childhood happy, and we hold that to supply toys to poor children is an act of Christian charity. But certainly we have no right to tax a hard-working man who can scarcely obtain food and clothing for his own little ones, to buy dolls and rocking-horses for the children of his improvident neighbour.

(a) Indian Pay and Audit Regulations, page 102.

The November meeting of the Middlesex Jnstices was signalised by a piece of parsimony which is really worth recording. It will be remembered that at the recent inquest on a woman supposed to have been suffocated by the air of the Underground Railway, Mr. Rodgers, the chemist, furnished a report, made analyses, and attended to give evidence at the adjourned inquiries which took place. The fee of £10 was charged for Mr. Rodgers's services in Dr. Lankester's account. The Committee of Accounts and General Purposes reported that the fee of £10 should be cut down to £3, on the ground that counsel's opinion had been obtained to the effect that the magistrates had no power to allow any sum not mentioned in the schedule of fees set down by Act of Parliament. This very large deduction, however, did not satisfy Mr. Kemshead, who stated that Dr. Lankester's bill of expenses was always higher than that of Mr. Humphreys, and thereupon moved that Mr. Rodgers's fee of £10 should not be allowed—a proposition which was carried *nem. con.* Now it really seems to us that this is a very startling piece of justice's jnstice. Whatever quarrel the Middlesex magistrates may have with Dr. Lankester on the score of the expenses of his court, they cannot be justified in obtaining without payment the services of a scientific man in an inquiry where the health and comfort of thousands were supposed to be involved.

The Surgeoncy to the Middlesex House of Correction, vacant by the decease of Mr. Lavies, of Westminster, is advertised. The election is to take place on the 16th of next month. It is generally felt that Dr. J. S. Lavies, the son of the late incumbent, who has discharged the duties of the office to the entire satisfaction of the authorities for the last twenty years, has established a strong claim on the support of the electors. Dr. Lavies needs no word of recommendation from ourselves. His fitness for the post has been proved by actnal and long trial, and he possesses an amount of experience as a prison Medical officer to which very few in the Profession can lay claim. In the cholera of 1849 especially, Dr. Lavies rendered most valuable services to the prisoners. The magistrates will, in our opinion, commit a great error if they make any unnecessary change in the Medical management of the prison.

Another Medical man, Dr. Shaw, of the Firs, Bonham, near Ellstree, is undergoing a prosecution for infringing the Lunacy Act by receiving a lunatic patient into his house without the licence of the Commissioners. The case was heard before Mr. Vaughan, at Bow-street. The defendant was charged with two breaches of the law—the first that of receiving a lunatic patient without certificates, the second that of receiving two lunatic patients, his house not being licensed. Dr. Risdon Bennett, who, by order of the Lord Chancellor, had visited the alleged lunatic referred to in the former charge, proved his insanity. The magistrate granted a summons on the first count, but not on the second. The Profession have certainly received enough of warnings in this matter, and as there is really no difficulty in complying with the law, it seems inexplicable that so many of these prosecutions should occur.

The Association for the Better Endowment of the University of Edinburgh announces that an appeal is to be made to the public to provide additional accommodation for the departments of chemistry and anatomy. With the most sincere wish for the success of such an appeal, we fear it must be a complete failure as far as the general public are concerned. The British people are not yet educated up to the point of subscribing for laboratories and dissecting-rooms.

The treasurer of the Finsbury Dispensary has recovered £20 damages against the *Athenæum* for a libel, in which a writer speaks of the Dispensary as a dirty hole, and hints that its financial accounts would not bear inspection! What a literary journal like the *Athenæum* had to do with such a matter, it seems difficult to conjecture. We believe that the Medical charities of London are at least as well conducted as the other harities; and, admitting that the subject is fairly within the province of any newspaper, we believe that our contemporary's criticism has been in the present instance misapplied.

A fatal case of hydrophobia, treated at St. Thomas's Hospital, was investigated last week in the Coroner's Court. A curious circumstance in the case, as illustrating the uncertainty in the action of the virus, was that a person who had been bitten in twenty-one places by the same dog, at the time of his attack on the deceased, attended to give evidence at the inquest.

The death of Mr. Melvyn Prower, an undergraduate of Brasenose College, Oxford, which took place on Thursday, November 28, has left the public in an unpleasant state of uncertainty as to whether the young gentleman was murdered by the mob in the bread riot of November 9 or met his death from natural causes. There is no doubt that he received a severe blow on the head during the riot, and in a letter published in the *Times* newspaper his death was attributed to that injury. This, however, has been formally denied by Dr. Jackson and Messrs. Symonds and Taunton, of Oxford, who unite in ascribing the death to typhoid fever. We may state that we know that the attention of the Coroner of the University was directed to the case soon after the fatal event, and that it was only on receiving a positive certificate from the above-named gentlemen that he relinquished the idea of holding an inquest. Mr. Henry Lee, of St. George's Hospital, however, has since written to the *Times*, and states that, having visited Mr. Prower twice during his illness, he attributes his death to the violence he had received. Under these circumstances it would be certainly more satisfactory to the public that the body should be exhumed and an inquiry held. It is a case in which the public are deeply interested, and it would not be right that the cause of death should be left in its present uncertainty.

YELLOW FEVER AGAIN.

The arrival of yellow fever is now as regular as the mail. On Tuesday night last (3rd), the *Tamar* mail steamer from St. Thomas arrived at Plymouth, having had twenty-four cases of yellow fever and seven deaths during the voyage. She was, of course, refused pratique, and as she had only four tons of coal on board and required sixty tons, she was obliged to wait till the Customs authorities communicated with the Privy Council. The last death occurred on Saturday last. It is curious that there was no yellow fever at St. Thomas when the *Tamar* left, but the disease was still prevalent among the shipping. This fact is corroborative of the statements made by a recent writer in the *Times*, and shows the necessity which exists for an alteration of the port at which the mails are shipped. It is satisfactory to find that there are no cases of the disease now on board, the survivors being thoroughly convalescent.

FEEDING THE POOR.

It has been so much the custom to starve the inmates of our workhouses, that we congratulate the master of St. Pancras upon the steps taken by his union to do a little in the way of feeding the panpers. The dietary of St. Pancras has certainly undergone a remarkable change for the better, if what Mr. Blake states be correct. It is stated that the old people now get meat six days a week. The quantity supplied is not extravagantly large, but it is perhaps as much as the pauper has a right to expect. On four days in the week the men have four and a half ounces, and the women four ounces, of cooked meat—that is, on Sundays, Tuesdays, Thursdays, and Fridays. On Mondays and Wednesdays they get three ounces of meat either in the form of Irish stew or in peasoup. Saturday is the only day on which meat is not given; but even on this day, although they do not receive flesh food *pur et simple*, they are supplied with beef-tea gravy to mix with their suet pudding; of this latter the men have sixteen and the women

fourteen ounces. What is the most extraordinary is that this liberality in the food supplies is accompanied by an actual retrenchment in pecuniary expenditure. This is truly the most wonderful part of the problem, and we confess we are unable to offer any satisfactory solution of it. The number of paupers housed being practically the same as that of last year, the expenditure is absolutely less by £70 a week than it was in 1866.

THE GUARDIANS OF THE POOR WOMEN (?).

A few days ago a poor woman, belonging to the parish of Collumpton, in the Tiverton Union, the mother of seven children, died in childbed. During her travail she had been attended by a midwife, who, when death signs appeared, sent off to the relieving officer for "an order" for the parish Surgeon. The officer, unluckily, was not at home, and his sister would not undertake the responsibility of issuing the required order; so when a Medical man at last arrived, and that without "an order," he did so only in time to see the poor woman breathe her last. Mr. Gribble, of Collumpton, has written a straightforward letter to the Board of Guardians of the Tiverton Union on this poor woman's death, and denounces the system of employing nurse-midwives and the guardian trick of not paying a Medical officer for his services unless he can produce "an order." He clearly shows what risks to life are involved in such regulations as those in force in that and other Unions, and calls upon the guardians to place confidence in their Medical officers and allow them the sole charge of the patients, to prevent such shocking cases occurring. He also pointedly tells them to bear in mind that in two instances they had refused him payment in which he had attended without an order and saved the lives of two women. It may be supposed that this was an unpalatable letter to the guardians, and the parson of the parish, a Mr. Sydenham, of course accused Mr. Gribble of attempting "to get up a case against the board;" but the board might have reflected that, had their own regulations been more liberal, there would have been no "case" to get up. Whenever the office of Surgeon to a Poor-law district becomes vacant, we read advertisements in many of which is prominently set forth "midwifery 10s. per case." On entering on his duties, the Doctor finds himself associated in some extraordinary manner with a parish nurse-midwife, who would be "considered skilful" by village gossips. This amphibious semi-official is employed in some undefined way to attend all women who are supposed not to require the aid of a Doctor at from 5s. to 7s. 6d. per case, so that the legally qualified man never gets a chance of earning even the paltry half-guinea fee unless the midwife gets into trouble. Thus he is only called upon to exercise his legitimate vocation when the greatest amount of mental and bodily work can be exacted. As a rule, low-priced midwifery never pays, and knowing this we console ourselves with being contented to take the rough with the smooth; but what consolation has the Poor-law Medical officer, who has all the rough, whilst the nurse has all the smooth?

INDIAN MEDICAL OFFICERS.

Every step taken by the Indian Administration places the Medical Service on a worse footing than it was before. What the object of the Government can be in thus depreciating the pay and rank of their Medical officers it is difficult to determine. It would seem, however, as if ignorance and carelessness prevailed in some of the official departments, and this may in some measure explain the facts. "Muddle and muddle" seem to be the order of the day in at least the Medical branch of the Indian Executive, and of this a very pretty illustration is afforded by the scale of pay recently published in the Secretary of State's despatch. From this document we learn that both Surgeons-Major of twenty years' service and Surgeons of fifteen years' service draw far more pay when on leave than when engaged in the discharge of Professional duties to a "native corps," or to a second-class "civil station." Now, what, we ask, is the object of this peculiar scheme of remuneration, which thus, as it were, offers a premium for idleness? Of course there is some explanation to be given of such an anomaly, and we think it is only fair that the authorities should be a little more straightforward with the Profession. To us it seems, on the face of it, that the aim of the Government is to disgust Medical officers with the pay of civil appointments, and thus to throw these posts open to non-military members of the Profession. If this conjecture be correct, and we fear there is no other explanation of the matter, the conduct of the authorities is, it appears to us, as unwise and impolitic as it is unjust and underhand.

THE DIET OF THE BRITISH SOLDIER.

We are glad to notice that our contemporary, the *Pall-mall Gazette*, has directed attention to the soldier's diet. Mr. O'Flaherty, in commenting upon a pamphlet by Professor Playfair "On the Food of Man in Relation to his Useful Work," makes some remarks on the reasons which actuated the authorities in fixing the amount of the ration given to the army. We gather our facts from his contribution to the late Army Medical Blue-book. The Government troubled itself very little about the chemical and physiological value of food. The regulations for the diet of the soldier were framed more with the view to what he could afford to spend than with any reference to the amount and class of food actually required to keep him in health. In 1837 Mr. O'Flaherty was in charge of an infantry depôt at Limerick. Beef was at that time 3d. per lb., and potatoes 2d. per stone, and the soldiers could obtain all the food they required for 6d. per diem; but, to prevent drinking, and, as it was said, not to allow the soldier to have too much money to spend, he was compelled to expend 8d. daily on his diet. Whether he could eat it or not was another matter. The beggars, at all events, fully benefited by the arrangement. Meat has since become so dear as to be out of the reach of any one with the daily pay of a shilling, and this difficulty has been met by supplying the soldier with a daily ration at a small fixed sum, instead of making him pay the market price for it. The soldier's pay has been increased, but, as Doctors, we must say that it is still necessary to adapt the daily diet, in a climate like our own, to his actual requirements by making some additional provision for his breakfast in the way of food containing hydrocarbons.

PRISON DIETARY.

The question of prison dietary, especially in so far as it relates to the Irish prisons, is one deserving grave consideration, and which, we trust, will not be drawn up hastily or without reference to the important changes which the physiology of nutrition has recently undergone. But in the meantime a more liberal scale of diet than that now adopted might be enforced with advantage, and ought in common justice to be employed as at least a temporary measure. In Ireland the only animal food a prisoner receives from year's end to year's end is a pint of milk. Milk, even when supplied to private individuals from the most promising dairymen, is by no means unacquainted with the iron-tailed cow, but what can we think of the nutritive quality of the "sky-blue" supplied on tender by a prison contractor? Is it the sort of pabulum to repair the waste occasioned by shot-drill or the treadmill? We call attention to this point now, because, from a statement in the *Waterford Mail*, we learn that the "Medical Commission" has just pronounced the general arrangements of the Waterford gaol to be satisfactory. What the Commissioners mean by the term "satisfactory," we should like to be informed. The present scheme of dietary is—we believe we are correct in stating—that which was adopted in 1847, and which was reduced to a sufficiently starvation standard to prevent the paupers committing crime in order to gain

admission to the prisons. The treatment of the prisoners in the Waterford gaol appears to be unwarrantably cruel, however strictly in accordance with regulations it may be. The practice of leaving human beings without food for seventeen hours—from 3 p.m. one day to 8 o'clock the next morning—is an exercise of wanton barbarism, which only requires to be generally known in order to be abolished. It is a refinement of torture which can effect no ultimate good to the State, and which is opposed alike to the spirit of the law and the dictates of common sense.

HOSPITAL ACCOMMODATION FOR CARRYING OUT THE CONTAGIOUS DISEASES ACT.

THE great question after all is this—How are we to obtain the requisite amount of Hospital space? As the *Pall-mall Gazette* said, if any one could devise a plan for surmounting the financial difficulty, the course would be very clear before us. It is not that we want more room for treating an increased number, but we require to retain those admitted for longer periods. On turning to the volume issued by the Committee appointed to inquire into the causes, treatment, and prevention of Contagious Diseases, we find that the views which we have always expressed on the working of the Act are strongly corroborated in the evidence given by those who know most about it. Dr. Leonard, the Inspector under the Contagious Diseases Prevention Act, assumes that the Government, in order to carry it out at the stations included in the Bill, will require to provide 1000 beds at the least; and we are glad to see that he has made the obvious common-sense suggestion of erecting wooden huts and other buildings, and utilising them as temporary Lock Hospitals. In the evidence given by Mr. Henry Guy, the Superintendent of Police, Portsmouth Dockyard, we come upon the following statements, which sufficiently explain why the results obtained at Portsmouth are so inferior to those of some other stations—Plymouth, for example. He speaks of women having been admitted again and again—two, three, four, five, and six times—for these diseases, within short intervals. Out of the total number that had been examined more than once, 3 had been examined six times, 2 five times, 8 four times, and 21 two times. Out of a total of 537 cases examined, 306 had been detained for treatment. These figures are significant to our minds that the amount of treatment was inadequate in a large number of cases. There were forty beds in the Portsmouth Lock in November, 1865, when Superintendent Guy was examined, and he then thought fifty or sixty beds would be sufficient; and the reason for his thinking so was that the *average duration of treatment was eight days*. The operation of the Act has proved a greater success with the navy than with the army, as far as statistical results are concerned, and we may hereafter have something to say on this point. In the meantime, we heartily wish the Society for the Promotion of the Extension of the Contagious Diseases Act to the civil population every success. The object in view is one of a truly philanthropic character, and we have only to read the universal testimony of our Profession, a sample of which is recorded in the Report of the Venereal Committee from which we have quoted, to perceive the necessity for some immediate and extended action, for little or nothing short of this will materially affect, much less stamp out, these diseases.

INFANTILE AND INHERITED FORMS OF SYPHILIS.

THE "Report of the Committee to Inquire into the Treatment and Prevention of Venereal Diseases in the Army and Navy," to which we have previously directed attention, is a very voluminous document, and illustrates very well the remark which was made about the recent Blue-book on Abyssinia—"it contains everything, but you don't know where to find anything." An index, an analysis of the evidence, and an epitome of the observations and statements of *fact*, as contradistinguished from the statements of opinion and doctrines, would have made the information more accessible and rendered the book much more interesting. We propose occasionally to notice the most important portions of the volume, and we now direct the reader's attention to the very important evidence given by Dr. Jenner, Dr. Arthur Farre, Dr. Barnes, and Mr. Hutchinson on infantile and inherited syphilis. The descriptions of the symptoms are very good: they bring out the main features of the disease, and place them before the reader in such a clear light that he either remembers to have seen the exact counterparts of these cases in his own practice, or he cannot fail to recognise them whenever they are presented to him. Dr. Jenner expresses himself strongly on the therapeutic effects of mercury in this form of syphilis, adding that he has no more doubt about the influence of mercury than he has of the influence of an aperient; and Dr. Farre, whose experience is very great, regards the treatment of infantile syphilis by mercury as most simple and effectual, provided only that such treatment be commenced sufficiently early and before the stage of atrophy has set in. Dr. Jenner's remarks on the relation of a syphilitic taint to tubercular, strumous, and rickety diseases, successively appearing in the children of one family, are very important. He traces the influence of a syphilitic taint, minimised, as it were, by process of time, as the increasing family brings poverty, defective hygiene, and insufficient food into a more and more prominent position, and he thinks that he sees in that an explanation why the later-born children should be tubercular, strumous, or rickety, while the first or second born should present syphilitic symptoms.

CATALOGUE OF THE UNITED STATES ARMY MEDICAL MUSEUM.

WE have received a splendid evidence of the industry and activity of the Army Medical Department at Washington in a well-arranged and admirably printed quarto volume of about 1000 pages, containing the descriptive catalogues of the Surgical, Medical, and Microscopical departments of the Army Museum. The small collection which existed before the civil war has been enormously increased both in quantity and value, chiefly by the exertions of Surgeon-General Hammond and his assistants, followed up by those of his successor. As might be expected, the Surgical section, made up of contributions from all the chief battles of the war, occupies two-thirds of the volume. The examples of gunshot wounds, well described and illustrated, are most remarkable fo numbers and value. We shall take an early opportunity of noticing the work in detail.

ABYSSINIA.

WE are frequently asked about the best books to read on this subject, and we may therefore indicate those which appear to us to contain the most information, or to be the most interesting. At the Royal Geographical Society there is a very good collection of travels, maps, plans, and plates of all kinds, beginning from the fifteenth century, and extending into the future, for there is a German book just published and dated 1868. Plowden's Report is universally allowed to be excellent. It contains a large amount of information, and is eminently clear and readable in style. This, with two pamphlets issued by the Topographical Department of the War Office, entitled "Routes in Abyssinia," and an Appendix, will give all the information required by the ordinary reader. Bruce's work is well known, and we have read it again with all the freshness we did at first. What a sagacious, observant, clear-headed traveller Bruce was! Ferret and Gallinier's work, the result of a French scientific commission to the country, is very systematic and erudite. Then there are Beke, Krapf, and Sterne, and, last of all, Dufton among the very modern works. Dufton's account is very interesting, written shortly, graphically, and to the point. If any one is desirous of knowing something of Abyssinia two or three hundred years

ago, let him look into M. Poucet's little book, or another by an Italian—Barratti. They are very good reading, and most interesting to those who are interested in questions of ecclesiastical history and points of religious doctrine and faith as held by that very old church, the Abyssinian. The Book of Enoch—that Enoch, the seventh from Adam, mentioned by St. Jude in his Epistle—formed part of the canon of this church, and it was disinterred and brought to England by Bruce, afterwards translated by a Bishop of Cashel, and almost universally declared by critics to bear intrinsic evidence of having been written somewhere about the century before our Saviour.

FROM ABROAD.—EXTIRPATION OF THE SPLEEN—MECHANISM OF DEATH FROM GANGRENE—THE PARIS MORGUE.

M. Pean recently presented to the Academy a woman, aged 20, who had undergone the operation of extirpation of the entire spleen with the best results. The operation was undertaken under the idea that an ovarian or other pelvic tumour had to be removed, and neither the history of the progress of the case nor the results of careful and repeated examinations led to the most remote suspicion that the spleen was the organ concerned. The details of the operation may be perused in the memoir about to be published, and it will suffice here to say that, owing to the attachments of the diseased organ to the other viscera, it was difficult and tedious, and, with the aid of metallic ligatures and the actual cautery, was completed in the course of two hours, with very trifling loss of blood. At the end of the tenth day the patient was enabled to go downatairs into the garden, and about two months afterwards was presented to the Academy quite well. The tumour was formed of a large unilocular cyst, containing a very viscid fluid, and of great hypertrophy of the substance of the spleen. At present no serious injury or interruption to any function seems to have resulted from the ablation. Besides the innocuity of the operation, this case furnishes an additional proof that it is a mistake to say that gastrotomy performed within Paris will necessarily prove fatal. In five out of the author's six cases of ovariotomy performed in Paris success has been the result.

At the same meeting of the Academy, Professor Parise, of Lille, read a paper on the "Mechanism of Death in Gangrene," which concluded with these propositions:—1. Gangrene of the extremities sometimes gives rise to sudden death. 2. This is due to the formation of putrid gases within the veins of the gangrenous limb, when eruption of these gases takes place towards the heart. 3. The mechanism of death is the same as in cases of introduction of air into the veins during operations. 4. Such a termination is to be feared in deep-seated humid gangrene, having a rapidly invading course. 5. In these cases we should promptly interfere by the immediate performance of amputation, if this be not otherwise contra-indicated. 6. When this is not thought advisable we should resort to deep incisions, compressing the principal vein of the limb at its upper part.

In an account of the Paris Morgue by M. Ducamp, contained in the *Revue des deux Mondes*, Nov. 1, there are some facts of interest. He observes that the skill in identification and in tracing out clues, however obscure, attained by the present registrar is something remarkable, the result being that the greater number of the unfortunate objects brought to this abode of desolation are satisfactorily traced out. This hard-worked and intelligent officer receives for the performance of his repulsive task, but 2100 frs. per annum, and has only two assistants and a clerk. Bodies are received day and night, and the various indications of peculiarities, whether of person or clothing, registered at once with wonderful minuteness. One startling fact is that the number of bodies received is augmenting with remarkable rapidity, having doubled within the last ten years, although the area whence they are derived has not been increased. It is true that they are now more effectively aought for than heretofore; but the true cause lies deeper than this. "So many persons now resort to Paris as an El Dorado, only too certain to meet with deceptions; so many fortunes far too rapidly acquired have led weak-minded men into hazardous speculations; absinthe has brutalised so many intellects and atrophied so much muscular power; carelessness of to-morrow, the haste to enjoy, and the feverish pursuit of pleasure have made so much progress for some time past, that it is nowise surprising that the slabs of the Morgue are never without their burden." In 1846 there were received 302 bodies (257 males and 45 females), besides 78 newborn infants and fragments. In 1856 the number had risen to 362 (312 males and 50 females), with 113 newborn infants and 11 fragments. In 1866 the enormous total of 733 was reached, consisting of 486 males and 86 females, 146 newborn infants, and 15 fragments; and during the present year the numbers continue on the increase. Of the 572 adults received in 1866 (445 of whom have been traced out), 166 (124 males and 42 females) were suicides, 19 homicides, and 82 sudden deaths. The great majority, 310, were recovered from the Seine, upon the banks of which the Morgue stands, having originally been one of the gates of the prison of the Grand Châtelet. June and July are the months during which the greater number of bodies are brought in, rising to 73 and 74 from 58 in April and 38 and 37 in December and January. Persons are stimulated to bring them to the Morgue by the payment of 15 fr. for every body recovered from the Seine, and 25 fr. for every life saved. The 310 drowned bodies brought to the Morgue in 1866 cost the Préfecture de Police 4650 fr. It also paid (besides distributing 24 medals) 1950 fr. for the saving of 109 lives, 31 persons declining any recompense. The persons following the various industrial occupations upon the banks of the Seine as it flows through Paris have, together with the boatmen, formed themselves into a society for the saving of persons from drowning under the name of *Société de Secours Mutuels des Sauveteurs du Département de la Seine*, and which contains 362 active members, all having received medals for services done, and 623 honorary members.

PARLIAMENTARY. — WORKHOUSE INFIRMARIES — EXEMPTION FROM RATING OF CHARITABLE INSTITUTIONS — PRISON DIETARIES IN IRELAND.

In the House of Lords, on Thursday, November 28,

Lord Devon, in moving for papers relating to the condition of workhouses, said his first object in doing so was to gain publicity for the reports of the Medical Inspector of the Poor-law Board, and, secondly, to explain the duties and powers belonging to the various persons connected with the management of workhouses. Besides the Poor-law Inspectors, Visiting Committees had been appointed, and everything which the Board could do had been done to secure the efficiency and cleanliness of those asylums, though he was bound to admit that in some cases the organisation had broken down. These unfortunate deficiencies, however, arose not from want of care on the part of the Board, but from their want of power over the guardians to compel the latter to do what was necessary. In the face of the public interest which was most justly excited on this subject, it was necessary, when defects were brought forward or abuses discovered, that their Lordships and the public should have an opportunity of knowing who were the real parties responsible for them. That knowledge, he believed, would be easily gained by the production of the papers for which he moved.

The Archbishop of York regarded the documents for which Lord Devon had moved as most important, and they would be even more valuable if they had previously been submitted to the Boards of Guardians whom they most affected. What they were now about to receive was not a report of inspectors, but of an inspector of inspectors.

Lord Carnarvon agreed that it would be better to have the reports of the ordinary inspectors, together with the special report moved for. It was impossible to doubt, from what had fallen from Lord Devon, that it was his deliberate conviction that the powers and authority of the Poor-law Board were inadequate to secure its decrees being fully carried out. If that opinion was just, Parliament would no doubt grant such

additional powers as were required; for, as the responsibility of supervising the workhouses was cast on the Poor-law Board, it was only just that they should have sufficient power to enable them to enforce such regulations as they considered proper and necessary.

After a few words from Lord Houghton, hoping that the question of expense to the ratepayers would be considered in any reforms that might be projected, and a brief reply from Lord Devon in the affirmative,

The motion was then agreed to, and their Lordships adjourned soon after six o'clock till Monday.

In the House of Commons,

Mr. Baines asked the Secretary to the Treasury whether the Government had taken into consideration the propriety of restoring to charitable institutions the exemption from rating which they formerly enjoyed, and when they would be able to announce their decision on the subject.

Mr. Hunt replied that the matter referred to by the hon. gentleman had been under the consideration of the Government, and they had come to the conclusion that they ought not to deal with it separately, but in connexion with the whole subject of exemption from rates. The general question, however, was one of great difficulty, and all he could say at present was that the Government were anxiously addressing themselves to its consideration, though he was unable to announce their decision on the subject.

Sir F. Heygate asked the Chief Secretary for Ireland whether he intended to bring in a Bill this this session to consolidate the gaols in Ireland into districts, instead of having one for each county as at present; and when the promised revision of prison dietary in Ireland would take effect.

The Earl of Mayo hoped that he should be able soon after the recess to introduce a measure dealing with the whole question of county prisons in Ireland. With regard to the dietary of the county prisons he might mention that soon after Parliament rose in August last a commission was appointed to inquire into that subject. The commission consisted of Dr. Stokes, one of the most eminent Physicians in Ireland, Dr. Hill, one of the most experienced Poor-law Inspectors, and Dr. Bradin. Those gentlemen had already made considerable progress in their inquiry, and had received replies in the great majority of cases to the elaborate queries addressed by them to the Medical officers of the various gaols. They had likewise received returns of the dietary of the Unions in which the county gaols were respectively situated, and also valuable information respecting the dietary of the labouring classes generally, and the rate of wages. All this information had been carefully tabulated, and he trusted that the commissioners would conclude their labours shortly before Christmas. As soon as their report was received he should be prepared to act upon it without delay.

On Tuesday,

Mr. Newdegate moved an address to the Queen praying her to cause all memorials received at the Home-office, requesting the remission or commutation of capital punishments, or sentences of penal servitude, to be laid before Parliament twice in each year.

After a long debate, in the course of which Mr. Newdegate's proposal was opposed by Mr. Hardy and supported by Mr. Neate, the motion was withdrawn.

PROVINCIAL CORRESPONDENCE.

LEEDS.

November 15.

Your correspondent has just been to see Mr. Nunneley take out a tongue by écrasement. The first Surgical performance he ever saw was the first Edinburgh case of removal of the tongue, and he has not forgotten it. After seeing the easy, rapid, and perfectly bloodless cutting by the wire rope, he has no wish to behold such another bloody tragedy as he saw in the North when a boy. Mr. Nunneley introduced a stout curved needle, not unlike a seton-knife, a little above the hyoid bone, and brought it out just behind the symphysis of the lower jaw. By the thread attached to the needle he dragged after it the wire rope, and embraced in the loop the whole of the tongue; pulling it well forward, and retaining the ligature down to the back of the tongue by means of two stirrups fixed in a handle like the limbs of Y. The whole operation was performed in a most astonishingly short space of time—less than I take to write it—the whole tongue was removed; the patient, woke out of the chloroform sleep very soon after it was over, in answer to a question distinctly articulated "No!" and was carried to her bed without having lost an ounce of blood. They have got further in Leeds than in the Northern metropolis, where they still accept Le Saye's statement that "all that is required is to bleed the patients, and make them use butter-milk. This is the secret of curing all the distempers incident to man." This, your correspondent has heard, is Mr. Nunneley's eighth case; all the others were successful, as far as the operation went, and he hopes that this may also prove so. The efficient manner in which the operator had assistance rendered him was remarkable; and here the Surgeons of Scotia's darling seat might learn another lesson—a living one, with more prevailing force than dwells in words—the Surgeons of the Leeds Hospital are on friendly terms with one another!

Another hint our Scotch friends might get in Leeds—a strange one for the inhabitants of the city where the father of anæsthesia dwells and teaches—they might learn how to give chloroform from Mr. Bradley. But your correspondent must cease, nor endeavour more

> "A helping hand to lend
> To open folly's eyes;
> And making wretched, make him wise;
> For next (a truth which can't admit
> Reproof from wisdom or from wit)
> To being perfect here below
> Is to believe that we are so."

SCOTLAND.

Edinburgh, November 19.

In chronicling the events that constitute our local Medical history, it becomes us to mention, among the various items of large or of merely gossiping importance, the passing changes in our Medical schools, and especially to note the two great epochs of the commencement and ending of the labour of each session. It appears almost superfluous to write that the largest and, to us all, most regretful change, which the commencing session reminds us of is the loss of the great Goodsir, so long one of the brightest ornaments of the Edinburgh University. Our sorrow for his removal has already been so frequently recorded, and the sympathy of the Profession generally has been so universally expressed, that it is unnecessary for us to enlarge on the painful theme. A graceful tribute was paid to the memory of his illustrious predecessor by Professor Turner a few days ago. Mr. Turner's appointment was made at a time when a formal introductory lecture was inconvenient, but on opening his systematic course for this session, the postponed duty was ably fulfilled, in the presence of the University dignitaries and a very large concourse of students.

Mr. Turner selected for his subject the general scope of Anatomy, and the relations of its various departments to each other. In this way he naturally indicated the boundaries of the science, its importance in Medical education, and the special position it occupied in the system of the University. Some interesting particulars were given of the history of the chair, which ranks as one of the most ancient in the country, having been founded in 1705. A curious feature in its history was pointed out, in that from the appointment of Alexander Munro *primus*, in the year 1720, to the death of John Goodsir, *i. e.* for the space of 147 years, the chair has been held by only four incumbents, each of whom acted, for several years immediately preceding his elevation to the Professorial dignity, as the assistant to his predecessor. It thus happened that a tradition of teaching was directly transmitted to each successive occupant, by which a unity and consistency was given to the method of instruction, and to this doubtless much of the efficiency and success of the chair has been due. Mr. Turner then enlarged on the individual peculiarities in the teaching of his predecessors, and on their special anatomical labours. The reputation of the Professorship was greatly raised by Alexander Munro *secundus*, and at his time it was one of the first in Europe. Its fame declined somewhat under Alexander Munro *tertius*, to be again brilliantly revived under John Goodsir, whose popularity was shown by the 300 and 400 students who, for many years, annually filled his class-room. As a most important adjuvant to the systematic lectures and the practical work of the dissecting-rooms, a course of demonstrations has existed for one hundred years, and has been conducted successively by John Innes, Andrew Fyfe, William

Mackenzie, John Goodsir, and, lastly, by Mr. Turner while Professor Goodsir's assistant. The relations of the chair with the teaching of histology were then dwelt on, and shown to be inseparable. A special interest was attached to this portion of the address, as rumours have been circulated that one of Mr. Turner's colleagues had asserted that histology is not a department of anatomy, and that to teach it in that connexion was an encroachment on the duties of another chair, for which the active interference of the Senatus was demanded. In concluding his able and admirably delivered lecture, Mr. Turner said :—"The past history of this chair, therefore, is one to which we may look back with pride. Worthily to tread in the path pursued by those who have gone before may well serve as an object of ambition. To conduct the study of the science in that comprehensive spirit that has characterised the teaching of former professors, and to strive to reach their standard of excellence, must ever be a matter of duty. To teach not only those facts in our science respecting which there can be no question, and on which dogmatic speaking is permissible ; to show in what direction progress is possible and can be made ; nay, more, to induce some, perhaps, to act as pioneers in opening up paths as yet untrod, is incumbent on him who fills the Chair of Anatomy in this great University. If that golden rule, which ought never to be lost sight of by one holding the responsible office of a teacher, be ever kept in mind, that the value of a course of instruction depends not only on the importance of the subject, but on the truthful spirit with which it is taught, then one may hope, when in future years you recall the hours spent on the benches of the anatomical theatre or by the tables in the dissecting-room, each of you will say, 'There I acquired knowledge, there I treasured up facts, which have stood me in good stead at many a difficult and anxious stage of my Professional career.'" That it is confidently expected such aims will characterise their teacher and such benefits be gained by his students has been already shown by the very large class-roll of the new professor.

The session of the extra-academical school was formally opened by a most able lecture on the study of Medicine, delivered by Dr. Grainger Stewart. The lecturers of this body have received an accession to their number in the person of Dr. Andrew Inglis. This gentleman has commenced a course of systematic lectures on Midwifery and the Diseases of Women and Children. He is now the third independent lecturer on these subjects that Edinburgh possesses, in addition to the distinguished Professor in its University. In other departments of Medical instruction a similar superfluity of teachers exists. The principles of free trade are possibly alone sufficient, as in the eyes of many, to provide all the requisites of Medical education, but they assuredly permit and foster a sad dissipation of energy and of mental, not to speak of material, capital. Under the shade of one University, the talents and energy of all these gentlemen might be more economically and productively employed in supplying many deeply felt and shamefully neglected wants that Edinburgh, in common with all the British Schools of Medicine, stubbornly ignores. Specialities of paramount importance, and practical instruction in the subjects of almost each individual Professorship, would afford ample occupation for the numerous independent and opposing teachers, which our present system permits and perhaps requires ; and thus the many glaring defects in our University curriculum might be removed. A reference to the "Oeffentliche Vorlesungen an der K. K. Universität zu Wien," to the "Index Lectionum" of Berlin University, or to the prospectuses of many of even the minor schools of Germany, would probably act as a more pungent incentive to reform in Medical instruction than even the incisive wit of a Lowe promises to do in the subject of general education.

We drew attention, on a former occasion, to the great scheme which the civic authorities of Edinburgh had proposed for the sanitary improvement of the city. This has now assumed all the appearance of a successful movement. An Act was obtained during the last session of Parliament to give the necessary powers to destroy or renovate the deplorable dens of disease that exist in our midst. The *alumni* of the University will rejoice to learn that one of the first improvements contemplated is in connexion with the College. A deputation from the Senatus had lately an interview with the Lord Provost, and urged the necessity for a speedy removal of the large block of dilapidated buildings that exist in the immediate neighbourhood of the north side of the College, and disfigure its appearance. Professor Christison acted as the spokesman of this deputation, and admirably explained the æsthetic and sanitary advantages of this change. The result will doubtless be that a wide street will soon occupy the position of the dilapidated lane of irregular buildings which at present constitutes North College-street, and in this way the appearance of the University and of the magnificent Museum of Science and Art will be greatly improved. Dr. Christison also advocated the erection in this new street of buildings suitable for chemical and physiological laboratories, and for dissecting rooms, as the accommodation within the University is at present sadly inadequate. It is highly probable, however, that for these purposes a special subscription fund will be required, towards which the assistance of the Medical graduates may be solicited, and we feel assured will be heartily and liberally granted.

GENERAL CORRESPONDENCE.

A REMEDY FOR THE DISCREPANCIES OF MEDICAL OPINIONS IN CASES OF INSANITY.

LETTER FROM PROFESSOR LAYCOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your readers doubtless agree with you that enough has been written as to the insanity of Bordier. That question, however, only arose incidentally in the course of our discussion. The object of your leader of October 5 was to show that the Profession was discredited, and justice badly administered, because its members generally are not competent to give evidence in cases of insanity, and that those specially qualified are the only proper persons to perform that duty. If you had supported these views on general grounds, no objection would probably have been taken ; but unfortunately, in selecting the case of Bordier as an illustration, you thought right to controvert the Professional opinions and censure the conduct of Mr. Simpson, a Medical witness in the case, and of his supporter, Mr. Gowlland. You thus raised another question. It was, then, as to your sweeping conclusion that there was "no evidence whatever" to warrant their diagnosis of insanity that both Dr. Wood and I addressed you ; for it appeared to us both that there was evidence. At this point Dr. Maudsley came to your support with his "entire concurrence," and the result of your leaders is that persons of the class who you maintain are the only proper Professional persons to deal with insanity judicially, prove to be totally at variance on the most fundamental questions. This is scandal enough, as it appears ; but the extreme divergence thus exhibited is not all. For I only state a simple fact in affirming that if you had advanced in a court of law the opinions you have expressed in your various leaders, and if Dr. Maudsley had followed you with his "entire concurrence," a barrister might have held in his hands a copy of Dr. Maudsley's published opinions and of the *Medical Times and Gazette* of June 15 last, and, by simply reading to the court certain marked passages therein, would have amply replied to you both. I shall endeavour to show what is the remedy for these intolerable scandals.

In all cases of doubtful criminal lunacy, various problems have to be solved, having their appropriate methods of solution. The advocate in a cause is a controversialist, and aims at a solution of his problem *ex parte*. He seeks truth if that will prove the proposition he has to establish ; he seeks to obscure it if it be opposed to his views. The judge directs the procedure of the court, and his duty is to expound the law as to insanity and responsibility. The law is determined by the legislator and the moralist according to such lights as his moral philosophy or his knowledge of insanity may supply. Now, as the judges are practically the legislators as well as the expounders, we may say the *forensic* method is used by these three. Other problems are allotted to the Physician. He has to determine, first, what insanity is as a disease, and then not only whether the individual in question is insane or not (diagnosis), but also, if insane, whether he is in possession of certain faculties or not, in accordance with the *dictum* of the law, the pleadings of counsel, and the ruling of the judge.

Now, what method is appropriate to the duties of the Physician ? Clearly it is not the forensic method, but that of all scientific inquiries, of whatever kind. He has for his duty the discovery of truth, irrespective of consequences ; it is for those who seek his opinion judicially to apply it to practice. Now, insanity being a disease, the general method of diagnosis

of diseases applies to insanity, only with this difference, that as insanity is often amongst the most difficult of diagnosis, so the rules of practice must be the more carefully followed. You have laid down these rules accordingly in a serious admonition addressed to Mr. Simpson (October 5):—

"It is a matter," you say, "respecting which a Medical man cannot be too cautious, too diligent in inquiring into all the physical and mental antecedents in the life and habits of the individual in question, or too protracted in his personal observation." Having thus collected his data, the "Medical man" must next compare the case as a whole with his own experience in like (or apparently like) cases, and with the accumulated experience of the Profession as formularised in clinical histories and nosologies. The result of this comparison, carefully and dispassionately made, is the diagnosis of the case.

Being agreed, then, as to the proper method to be followed by a "Medical man," which of us has neglected to follow it? I shall now endeavour to show that it is you and Dr. Maudsley—nay, that you have not only neglected the "Medical man's" method, but substituted for it the forensic method. The consequence of this is that as to every step of our diagnosis, and, according to every principle that governs our respective procedures, we are at utter variance, so utterly at variance, indeed, that agreement amongst us is inconceivable, even as a miracle. This may be strong language, but now for the proof

1. You have laid down that a Medical man cannot be too protracted in his personal observation, and you therefore blame Mr. Simpson for expressing an opinion when he was only in the patient's "company thirty-five minutes." But was Mr. Simpson allowed any further opportunity for personal observation? Remember, too, he was called as a citizen by the prosecution to give evidence as to the murder, and not as to the insanity of the murderer: his opinion on that point was extracted from him by the defence in cross-examination. Now, you and Dr. Maudsley were under no such compulsion to give an opinion from insufficient data, yet you volunteer your diagnosis in opposition to his without any personal interview whatever. No special pleading can overcome the force of this simple fact.

And if you apply the respective methods to any other diseases, whether for treatment or Medico-legally, the same result comes out. In ordinary practice a personal examination is so necessary to proper diagnosis in a doubtful case that few of us feel at liberty to decide dogmatically upon its nature without seeing the patient. It was from this feeling that I hesitated to give an opinion as to Bordier's mental state, alleging that "it is always more or less presumptuous to give an opinion on a case without seeing the patient." (*Vide* my letter of October 12.) You and Dr. Maudsley found no difficulty.

2. You enforce the necessity of diligent and cautious inquiry into "the physical and mental antecedents" of the patient. Mr. Simpson had no opportunity of making these inquiries more than you have had—indeed, there are statements in your leaders which tend to the conclusion that you had better opportunities than he. Yet he deduces from the facts an important conclusion as to the patient's antecedents—namely, his constitutional tendency to mental disease; for he adverts in his evidence to the fistula and the tubercular disease of Bordier, observing that some diseases had a more depressing effect on the mental organisation than others, and these diseases were of that class. But, on the other hand, you and Dr. Maudsley, when volunteering an opinion, have not only neglected to make inquiry into this important point of Bordier's physical antecedents; but you have not even made the attempt to deduce a knowledge of it from the symptoms. In short, you have wholly ignored this knowledge of a man's hereditary tendencies as an important element in diagnosis; and yet you blame Mr. Simpson. In this, as in all other respects, you have adopted the forensic method of inquiry, for that not only ignores, but rejects, all evidence of hereditary taint. It is only a few weeks ago that an able Scottish judge, presiding at a trial at Aberdeen, in which evidence as to hereditary tendency to insanity was tendered, laid down the rule that such evidence was inadmissible. Now, when an imbecile homicide, named Burton, was tried in England, the judge fell under Dr. Maudsley's stern admonition for a less offence. When discussing that case, Dr. Maudsley observes that the mere "act" of such a man "might well *suggest inquiry* into the hereditary antecedents *even when it is not given in evidence*." And of the judge's conduct in not giving proper weight to that kind of evidence in forming a diagnosis, Dr. Maudsley remarks, in language rather too vituperative for my taste, "If the judge's knowledge had been equal to his assurance, he would not have been ignorant that an hereditary predisposition to insanity is frequently as injurious to the brain as blows on the head."(a) Of course, Dr. Maudsley's method in Bordier's case is wholly different from the "Medical," and he takes no note of blows on the head or of anything else.

3. How was the clinical history of Bordier's case dealt with by the two methods? We have seen that Mr. Simpson pointed to the intimate connexion between tubercular and mental disease. Of course, your method ignores this clinical fact. Yet Mr. Simpson is in very good company amongst us "Medical men." My friend, Dr. Clouston, of the Carlisle Asylum, has ably elucidated the history of a case like Bordier's, and has formularised a distinct species, which, from its close connexion with tuberculosis, he designates "phthisical insanity."(b) Dr. Skae, too, of the Royal Edinburgh Asylum, whose long experience entitles anything he may record to careful attention, has designated the same kind of mental disease "phthisical mania." These terms may be objectionable, but the clinical facts remain. As to "phthisical mania," then, my able friend Dr. Skae remarks, "I feel it unnecessary to say more regarding it than this, that its natural history can be well made out; the character of the mental symptoms is remarkably uniform, and its progress and termination equally so."(c) I need hardly say that Dr. Maudsley, as one of the editors of the *Journal of Mental Science*, is quite cognisant of these facts, and consequently is in agreement with Mr. Simpson. According to the "Medical man's" method, nothing can be more certain; but, in applying and supporting your method, he takes care to help you in rating Mr. Simpson. Here is what Dr. Maudsley writes medically:—"Schroeder van der Kolk was also of opinion that hereditary predisposition to phthisis might develope into a predisposition to insanity, and, on the other hand, that insanity predisposed to phthisis. There are unquestionably very close relations between these two diseases; not only is one-fourth of the deaths in asylums due to phthisis, but tubercle is often found in the bodies of the insane who have died without ever having been thought to have tubercle; and Dr. Clouston, of the Carlisle Asylum, who has described a *suspicious melancholia* as phthisical insanity, found hereditary predisposition to exist in 7 per cent. more of the cases of insanity with tubercle than of the insane generally.(d). You raise the characteristic forensic objection that I use the "vague" term melancholia; but you see that Dr. Maudsley uses it. It *is* vague; so are the terms night and day, or any term you choose to quibble about. It transpired during a debate in the House of Commons last session, that judges had given diametrically opposite judgments as to the meaning of the term dwelling-house; and the House adjourned without settling the question. Now the Medical method leaves no practical doubt as to the meaning of the term melancholia, although it denotes a condition and not a thing.

4. In comparing the data of the case acquired by observation and inquiry with the facts of experience, you differ just as widely in method from Mr. Simpson, and reprove him severely for the difference. That gentleman, called in to see the wounded wife, saw also the alleged lunatic immediately after the commission of the insane act. He described the man's conduct to the court as being that "of a man thoroughly satisfied with what he had done." And comparing this with his experience in other cases presenting like symptoms, causation, and course, he concluded that it indicated insanity. Being on his oath, he must say that. Now Griesinger, in discussing the diagnosis of "melancholia with destructive and murderous tendencies," observes that the ease and calm which the patient manifests after the murderous act, is "a circumstance which gives to these acts what has been termed a critical [that is, diagnostic] significance."(e) Neither you nor Dr. Maudsley compared Bordier's with any similar case; on the contrary, you both deduce from this diagnostic account that he was a "theatrical Frenchman," quite sane.

5. But you do this because you wholly fail in the most primary and fundamental part of the "inquiry into the

(a) "On Homicidal Insanity," by Henry Maudsley, M.D.: *Journal of Mental Science*, vol. ix. p. 337.

(b) "On Tuberculosis and Insanity:" *Journal of Mental Science*, April, 1863. "Illustrations of Phthisical Insanity:" *Ibid.*, July, 1864.

(c) "Classification of Insanity," by David Skae, M.D.: *Ibid.*, October, 1863.

(d) "On some of the Causes of Insanity," by Henry Maudsley, M.D.: *Ibid.*, January, 1867.

(e) "Mental Pathology and Therapeutics." Syd. Soc. Transl., p. 262.

mental and physical antecedents." In ordinary diseases the fact that there *is* departure from the healthy natural state is reported to the Practitioner by the patient himself, together with the evidence on which he founds his conclusion. But in insanity the converse takes place; the patient usually insists that he is not affected with the disease (as did Bordier), and the evidence of it is reported by others. Hence it happens that the Practitioner has, in a case of insanity, first to determine whether there is or is not a change in the mental disposition and conduct of the individual. Griesinger rightly says—"The chief point is invariably this: there appears with the mental disease a change in the mental disposition of the patient, of his sentiments, desires, habits, and opinions. . . In order to prove that this change has taken place in the patient, it is necessary that his *former* habits and character should be made known to the Physician, even though solely from the communications of others."(f) Dr. Maudsley (I need hardly say) does not differ in this from Griesinger, nor Griesinger from all "Medical men." How, then, have you both proceeded? Thus: you have simply assumed that those acts which, according to the Medical method, are the symptoms or signs of disease, were the natural acts of an "atheistical dastardly Frenchman," and made no inquiry, direct or indirect, into his antecedents. Yet the acts themselves, and more particularly the letters, suggest most strongly the need of inquiry. How is it possible, then, that Mr. Simpson could do otherwise than differ from you and Dr. Maudsley?

6. The same neglect of experience and the same fallacy in comparison run through the whole of your method. Both you and Dr. Maudsley dwell most emphatically upon the fact that the prison officials could find no evidence of insanity in Bordier, as if that was a fact of great diagnostic value. Yet you both must know well that it is of no diagnostic value whatever, for every one familiar with the insane knows this—nay, it is matter of popular observation—and the ludicrous mistakes that have been made in consequence of this fallacy have served to amuse the public in works of fiction and on the stage. Medically, you both must know well, too, that this coherence of thought sometimes constitutes one of the great difficulties in the way of diagnosis under the most favourable circumstances as to inquiry. "I have had submitted to me," says Griesinger, "the opinions of special Medical psychologists who, *after six months' observation of a patient in their asylum*, could not come to a decision whether they should declare him insane or not."(g) Yet neither of you hesitate to volunteer an opinion in the case of Bordier, although this difficulty is plainly an element in the case; and the reason is that whereas the Medical method which Mr. Simpson followed inquires into the points of *difference* from the healthy state, you dwell upon the points of *resemblance* to it. By your method Lord Westbury attempted to prove in the House of Lords that the brain was *not* affected in insanity at all.

7. These are only a few of the numerous proofs of radical difference in the method of establishing a diagnosis that might be adduced; but they amply serve my purpose. I will now show that, as "Medical men," we differ radically with regard to the method of *discussing a diagnosis*, and that you adopt the forensic method. The first point in a scientific discussion of any kind is an exact statement both of the facts of observation and the facts of experience. In Medical controversies in particular, all mere theories and hypotheses should be avoided if possible. This being, doubtless, your opinion, I shall show that you are inaccurate in your statement of facts; that you use facts of experience as if they were theories, and mere hypotheses as if they were facts; and, of course, charge those with whom you differ with these faults. I select the discussion on the fistula of Bordier for illustration. Mr. Simpson (as reported in the *Times*) stated in evidence that "some diseases have a more depressing effect on the mental condition than others. Fistula was one." Mark, he did not say it *produced* insanity. Mr. Gowlland comes into the field in support of Mr. Simpson's pathology, and in a letter published in the *Morning Star*, of which I know nothing more than what you state (October 12), affirms (I quote you) that Bordier, during his sojourn in St. Mark's Hospital, was in a state of extreme mental and physical depression, depending upon fistula. Comparing this fact of observation with the facts of his experience—namely, that he had seen cases of melancholia and *suicidal* mania result—Mr. Gowlland concurred with Mr. Simpson in his diagnosis. To this you object, thus—"The theory that connects fistula with *homicidal* mania is certainly novel." Were the facts "novel" as stated? and were they a "theory," and not facts?

Dr. Wood, moved like myself by the injustice of your comment, answered at once "No." I limited myself to showing the so-called "theory" was a fact of experience, like that which connects parturition with insanity. Dr. Wood affirmed that "it is quite true that extreme mental depression not unfrequently attends cases of fistula" (letter in journal for October 19). I gave no opinion. Dr. Maudsley now steps in *tantas componere lites*, and says, "It *is* true that, as Dr. Laycock [not I] and Dr. Wood have pointed out, fistula will sometimes produce despondency," and, in a certain sense, he agrees therefore with Messrs Simpson, Gowlland, and Wood. But how do you deal with these facts as to the etiology of mental disorder communicated by your Professional brethren, in your so-called "summing up" of the evidence on November 16? "True," you say, "the man's spirits were depressed, and the invulnerable authority of a lady, the matron of a Hospital for fistula, was invoked to show that low spirits were characteristic of fistula." Thus, the experience of Mr. Simpson, Mr. Gowlland (the Surgeon to the Hospital in question), Dr. Wood, and Dr. Maudsley, is resolved into the invulnerable authority of a matron. This rule of method of discussion runs through the whole of your leaders. You begin with it, for you not only distinctly imply that Mr. Simpson had "volunteered" his evidence for the defence when he was a sworn witness for the prosecution, but you also distinctly imply that he was an example of those members of the Profession who are incompetent from defective education and experience to give an opinion, and yet presume to volunteer one. Now, Mr. Simpson swore that he had specially studied insanity, that he had intended at one time to follow the practice of insanity as a specialty, and that several hundreds of insane persons had come under his cognisance. Yet, just the contrary to these statements on oath as to Mr. Simpson's special fitness is assumed by you, and made the foundation of your argument. This is not our—the Medical—method.

8. These remarks are as to the diagnosis of insanity. You treat the other problems, which the Physician has to solve in the public interest, by the same forensic method. Upon these Law and Medicine are continually at variance; you are therefore as divergent from the Physician as is the Lawyer. Dr. Maudsley, who so entirely concurs with you, shall explain how his and your divergence arises "It is evident that Medical science and law must come into collision in the matter of homicidal insanity, *because of the opposite methods* on which they *proceed*."(h) Dr. Maudsley also lucidly explains the unpleasant dogmatic style which characterises the forensic method, as practised by you both. You substitute theories for facts; so does the law, says Dr. Maudsley. "And as facts, when they come into contact with the unsafe supports of the theory, make known its tottering insecurity, the representatives of the law are apt to make up by an exhibition of dogmatism for the logical instability of their position; they talk about the welfare of society being endangered if a lunatic is not hanged," etc.(i) Dr. Maudsley also animadverts severely upon the stern judgments passed upon this class of criminals by the press, which you re-echo. "Those who have faith in human nature must needs regret the popular outburst of exultation which sometimes occurs when an unfortunate lunatic has the life strangled out of him; but those who with scientific calmness observe man in all his relations, who, regardless of the professions which he makes, study him as he actually exhibits himself, will be nowise surprised at this howling outbreak of the animal in him. (Witness the wild exultation of the *Saturday Review* when the lunatics Fowkes and Burton were sentenced to be hanged. A wild Indian flourishing his scalping-knife could not have done better.) If man were the moral being which he professes to be, *he would surely look on criminals even rather in sorrow* than in anger, and in place of punishment would speak only of protection. At any rate, much malignant abuse by anonymous writers paid to excite popular passion might be spared if the criminal were allowed to pass in silence to his fate, until he who was without sin should cast the first stone."(k) This is Medical morals, if not style.

You will now understand the grounds of my conclusion (as

(f) "The Diagnosis of Mental Diseases." *Op. cit.*, p. 115.
(g) *Op. cit.*, p. 114.

(h) "On Homicidal Insanity:" *Journal of Mental Science*, October, 1863, p. 331.
(i) *Ibid.*, p. 332.
(k) Dr. Maudsley: *Ibid.*, p. 343.

expressed in my second letter) that you were not of our (Medical) school, and had to learn the first rudiments of our (Medical) method. Is it not worth while giving a serious and dispassionate consideration to the obvious remedy for all these mischievous differences? Medical science has a glorious future if the Profession stands by the truths it works out. We see daily what those truths are capable of when applied as sanitary science to the alleviation of man's bodily sufferings and wants. The truths of mental science, *as evolved by the Profession*, may be applied with equal certainty to the furtherance of his spiritual good. All that is required for success is, that these truths shall be honestly applied to education, morals, religion, justice. If the Medical method which has evolved them be the right method to apply them, surely it is the duty of a leading Medical journal like yours, if not to advocate it, at least not to condemn it and those who use it.

Edinburgh, November 22. I am, &c. T. Laycock.

ON THE ANALOGIES OF CHOLERA.

Letter from Mr. W. Sedgwick.

[To the Editor of the Medical Times and Gazette.]

Sir,—With reference to your report of the meeting of the Royal Medico-Chirurgical Society at which my paper "On some Analogies of Cholera" was produced, I beg permission to state that the great length of the paper, which, if read in full, would have left no time for discussion, precluded the possibility of more than about three-fifths of the whole being read on the occasion. The portion read was decided upon and marked by myself, and I have great cause to feel satisfied with the manner in which the task of reading it was accomplished, since it was listened to with profound attention, and one of the Fellows, of twenty-five years' standing, remarked that he had never heard a paper better read. Any misapprehension, therefore, of what I may have said during the few minutes allowed me for reply should be ascribed to the great difficulty every one must have experienced in attempting to snatch the correct meaning of what was too hurriedly expressed.

It is, perhaps, to be regretted that some of the Fellows present, who were prepared to speak on the occasion, could not do so, in consequence of the clock reminding them that the time of the meeting had nearly elapsed, and there appear to be many who would like to see the foreign custom of devoting more than one evening to the discussion of an important subject in Medicine adopted occasionally at our own Medical Societies.

There was one satisfactory result gained by my paper, which it is important to notice. It appears that the evidence cited to prove that a corresponding suppression of urine occurs in many cases of collapse analogous to cholera was not only received as conclusive, but was sufficient to induce Dr. Johnson to refer such suppression, not, as heretofore, to defective oxygenation of the blood, but to failure of the circulation. It is evident, however, that failure of the circulation cannot account for the suppression in such cases, since in poisoning by oxalic acid, which is a favourite analogy of cholera with French writers, the urine is not, as a rule, suppressed; although oxalic acid (according to Christison and Coindet, the highest authorities which can be cited), acts by causing paralysis of the heart. If, moreover, failure of the circulation were the cause of the urine being suppressed, it is obvious that it would also cause both menstruation and the mammary secretion to cease. It was in consequence of the difficulty of accounting for the suppression of urine in analogous cases of collapse, that the distinguished author referred to above seems to have somewhat unexpectedly given up the well-known chemical theory which he once entertained about milk being formed without oxygen, but not urine. It will be sufficient on this occasion to state that any supposed difficulty in accounting for the continuance either of menstruation or of the mammary secretion during cholera, when the urine is suppressed, has been much diminished, if not completely overcome, by a careful investigation of the analogies of the disease; and I, consequently, ventured to state in my reply that if time had been allowed I was then prepared to give such an explanation of this apparent paradox in the pathology of cholera as would probably be acceptable to the Profession. On some early occasion I may perhaps solicit the favour of your publishing a short note on the subject, which I regard as a necessary sequel to my paper on the analogies of the disease; and in the meantime I am, &c. William Sedgwick.

12, Park-place, Upper Baker-street, December 3.

INJURY TO TESTICLE.

Letter from Mr. T. W. Blake.

[To the Editor of the Medical Times and Gazette.]

Sir,—An uncommon case occurred in my practice recently to a boy, aged 16 years, while amusing himself and a companion by enjoying a ride *vis-à-vis* astride the handles of a well of great depth, having previously, to help them in their to and fro movement or ride, drawn a bucket of water containing nine gallons nearly to, or within a few yards of, the surface. My patient's companion soon lost his equilibrium, which caused the bucket to recede with great velocity, and the opposite handle to revolve with sufficient speed to upset its rider, "the point" taking with it a triangular portion of the lad's scrotum of such size as to allow the testicle to escape partially denuded of all its coverings, and lacerated to its centre, but still attached to the spermatic cord. In this state, with the testicle dangling in a pendulous manner, the boy walked home, a distance of two miles.

When I first saw him, four hours after the accident, he complained of being faint, had vomited several times, but was in no pain. No hæmorrhage had occurred; he was in bed; his trousers had been carefully removed, and a compress of wet linen placed under the exposed testicle; the latter had become purple in colour, glazed, cold, and dry. Some sweet oil was applied with a feather, the testicle then raised to its natural position, and kept there by the aid of three or four silk sutures to the lacerated edges of the scrotum, and covered with a dressing of oiled lint. The sutures proved of little service in bringing into apposition the cut surfaces, owing to the corrugated state of the parts; nevertheless, after a little healthy sloughing, granulations filled the vacancy, and the parts healed, with the assistance of some isinglass strapping, in three weeks. During this time he had milk and farinaceous food only. He is now—a short time since his recovery—able to follow the plough and attend to other laborious duties.

I am, &c.

Thomas W. Blake, M.R.C.S.E.

Hurstbourne Tarrant, Andover, November 27.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 19, 1867.

Dr. J. W. Ogle in the Chair.

(Concluded from page 611.)

Mr. Lockhart Clarke exhibited for Dr. Duchenne certain photographs of a form of

PARALYSIS ACCOMPANIED BY MUSCULAR HYPERTROPHY.

There were three stages, one of paralysis, another of hypertrophy, and a third of general paralysis. It always occurs in children. It is generally first noticed when they ought to begin to walk; they fall down instead, and are not able to stand or walk for two or three years. After being able to walk, paralysis comes on; they find it painful to stand or walk, and have a peculiar attitude, bending back and keeping the limbs apart. Months or years after the gastrocnemii, the glutei, and the muscles of the back become affected; they are large, firm, and elastic, but very hard. The joints look small. This stage may last for years. In the third stage the paralysis becomes more extensive and severe; the hypertrophy appears to melt away and atrophy to take its place. The patients are generally cut off by intercurrent disease. The muscles become filled with adipose tissue, but the muscular structure remains intact. The connective tissue appears to be increased in the first instance. Dr. Duchenne had invented a small instrument for removing small portions of the affected muscle.

Dr. H. Fagge had seen such a case under the care of Oppolzer.

Mr. W Adams had seen some cases of the kind; one was now under his care where the calves of the legs were enormously hypertrophied, the other muscles atrophied.

Dr. Graily Hewitt exhibited a specimen of

TRAUMATIC ANEURISM OF THE UTERINE ARTERY.

The patient, an Irishwoman, had been delivered by the forceps with no great difficulty, and did well for some days, till her husband came home drunk, and was said to have knelt on

her. A few days after she became very ill, and died, after repeated attacks of hæmorrhage, thirty-seven days after her confinement. The uterus was enlarged, and on the right side, half way down, was a sort of pouch with a projection into it. A probe passed here went directly into the uterine artery.

Dr. Murchison showed a specimen of

RUPTURED HEART.

The patient had disease of both sides of the heart, and acute nephritis. He died suddenly; and an opening was found in the anterior wall of the right ventricle, close to the septum. The walls were very thin there, and as the pericardium had been opened with care, it had not, in all probability, been formed by the knife.

Mr. Nunn showed an

EPITHELIOMA OF THE BLADDER

removed from a sweep. Three years ago the patient had himself removed his penis for the intolerable pain he suffered in it. There was an opening between the fundus of the bladder and the rectum, whereby fæces entered, and gave rise to dreadful pain. In fact, the man had almost starved himself to death to avoid it. There was in this case, as he had observed in others of the same kind, a degeneration of the skin, consisting of flat warty excrescences.

Mr. Trimen exhibited half of a

CHALKY TUMOUR REMOVED FROM THE BACK

of a patient by Sir W. Fergusson. It weighed 2 lb. 10 oz., and had a basis of fibrous texture, whose interstices were filled up with chalky or cheesy matter. There was no fat, but the tumour was situated below the skin in the loose areolar tissue.

Mr. Arnett exhibited a

BLADDER SUPPOSED TO HAVE RUPTURED SPONTANEOUSLY.

The patient, a young man in good health, suffered from stricture. One morning he could not pass water; forced catheterism was tried, but forty-eight hours after he was brought to Middlesex Hospital unrelieved. The bladder was tapped per rectum, and six ounces of fluid removed. After death it was found that a large clot lifted up the peritoneum in front of the bladder, which was ruptured at that spot. There was no trace of violence, but the man had been driven four miles in a cab.

Mr. Durham asked if the rupture was not to be attributed to the attempts at forced catheterism, etc., rather than to a spontaneous origin.

Mr. T. Holmes showed a

TUMOUR FROM THE RECTUM.

He had called it an intussusception, but he was not sure of its nature. The man, a drunkard, had at one time injured his perinæum, and while straining to pass water three inches of gut came down. Since that time he had been in great pain, and a mass the size of a duck's egg could be felt in the rectum; it looked like an intussusception, being dark and shining, but there were no symptoms of strangulation, and the tumour was without a pedicle. One day it came down, and was secured. Part of it was removed, when it was found to be a fibro-fatty material. His condition varied from time to time, until at last he died, worn out by bedsores. Enormous abscesses were found in his liver, lungs, and pleura. In certain situations of the bowel other tumours were found, and at some spots the walls of the abdomen seemed to constitute the walls of the gut.

Mr. Wood exhibited an

ANEURISM OF THE MIDDLE CEREBRAL ARTERY OF THREE YEARS' STANDING.

The patient had suffered three attacks of paralysis, but died on a fourth. On each occasion there was recovery of articulation to some extent.

He then exhibited a specimen of

COMPOUND FRACTURE OF THE TIBIA WITH DISARTICULATION OF THE FIBULA AND OPENING INTO THE KNEE-JOINT.

The anterior tibial was ruptured, yet there was no breach of surface and the skin had suffered little or no change. Primary amputation was performed, but the patient sank and died a week after the operation.

Mr. Wood showed a third specimen of

CANCER OF THE BREAST.

The patient had a child during the progress of the disease, so that the milk was arrested in the gland, the nipple being chiefly implicated, and poured out on cutting. Most of the organ was sound.

Mr. Durham showed a fresh specimen of

MALIGNANT DISEASE OF THE LIMB.

It was unexamined, but he would report on it.

Dr. Wilson Fox showed, for Mr. Spencer Wells, a

SARCOMA OF THE OVARY CLOSELY APPROACHING CANCER IN ITS CHARACTERS.

No trace of glandular structure was left in the ovary.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 6, 1867.

Dr. Hall Davis, President.

The following gentlemen were elected Fellows:—Dr. J. C. Baker, Liverpool; Dr. Horace Basan, London; and Dr. C. Fryer, Manchester.

The President congratulated the Fellows upon the prospect of their having a library, reading-room, and museum of their own, which would be ready for use at the commencement of the coming year.

Dr. Barnes exhibited a series of photographs illustrative of Face Presentations.

Dr. Cleveland exhibited a photograph of a child born with Imperforate Anus, but who survived its birth ten weeks and four days. Two attempts to reach the bowel had been made, but they had not been successful.

A paper, by Dr. J. Braxton Hicks, was read on

THE CONDITION OF THE UTERUS IN SO-CALLED "POWERLESS LABOUR."

The author began by showing the difference in the value of the term as employed by various writers on midwifery, being by some employed to express simply the quiescence of the uterus in the early stages; by some, the worn-out and exhausted uterus after very protracted labour. He then reviewed the opinions held on the condition of the uterus in the cessation of the pains, which had been held to be the cessation of all uterine action. He then proceeded to trace out the train of symptoms in ordinary labour, because by the clear understanding of the process the reason why, in the first stage, untoward symptoms came on slowly, and why, in the second stage, they came on much more quickly, was not difficult to be perceived. The author considered that the difference in the demand upon the supply of the nerve-force made this difference: as the child descended, the reflex irritation increased in proportion; so when detention took place in the first stage, less irritation was produced, and serious symptoms made their appearance later; when detention took place in the second stage, reflex irritation increased in proportion to the advance of the head, and serious symptoms appeared in like proportion. But sooner or later when detention took place, whether in the first or in the second stage, serious symptoms arose. The author then proceeded to point out that, contrary to the opinion that the cessation of the pains was cessation of uterine action, it was a fact that he had in every case observed that when the pains had ceased, and at the same time serious symptoms had arisen, the uterus had not ceased to contract, but had really become more active than ever: the rhythmical pains having indeed subsided, but a state of continuous contraction had taken their place. He held it as the result of observation, that this substitution of continuous action for the intermittent pains was the precursor and cause of the serious symptoms which were always considered to indicate the necessity for interference; that this continuous action remained till the powers of the patient gave way in the well-known typhoid form; that till this continuous action takes place the symptoms which are always held to be indicative of the necessity for interference do not appear; that it is very rare indeed that any serious symptoms requiring interference arise in the non-contracted state of the uterus, and that when they do appear we may expect lesion of the uterus or some constitutional condition, as the attack of an exanthem, excepting in cases where violent mental emotion has arrested uterine action; that when the continuous action has been well established the use of uterine stimulants, as secale, is calculated to increase the trouble; and that, unless in the intermediate conditions, we cannot expect much benefit from chloroform or opium, but that the indication is to remove by artificial assistance the uterine contents. He then proceeded to show how to detect the continuous action, and to diagnose it from the flaccid state of the uterus. After

which he discussed the mode of treatment to be adopted in the latter case, and the results of employing the forceps in the torpid condition of the uterus; and showed how to avoid the tendency to post-partum inertia in those cases where it is considered desirable to deliver. At the end of the paper some remarks were made upon the mode of classification of abnormal labour in connexion with the title of the paper; and suggestions were thrown out to simplify the mode of treating the subject.

The PRESIDENT remarked that the author of the valuable paper just read, while alluding amongst others to his (Dr. Davis's) classification of difficult labours and their division into "powerless" and "obstructed," seemed to think that he limited the term "powerless" chiefly to the first stage of the function; whereas his work showed that he applied the term equally to the first and second stages of labour, as experience teaches us we must so apply it. He did not employ the term powerless in "obstructed" labours, because absence of parturient action in them was not an essential element: it might or might not be present, and when so, either as a conservative element in the face of an obstacle, a safeguard against injury to the mother and her offspring, or, as in other cases, the effect of exhaustion from long-protracted but fruitless efforts and their attendant suffering.

After some remarks from Dr. BARNES and Dr. GRAILY HEWITT, expressive of their high opinion of the practical value of Dr. Hicks's paper,

Dr. MARTYN desired to know whether Dr. Hicks met with that hard, tender state of the uterus, with constant uterine action, which he said indicated obstruction to the passage of the child, at an early stage of the obstruction as well as in later stages.

Dr. CLEVELAND so fully concurred in the propriety of artificial delivery, when the natural efforts seemed decidedly unequal to the task, that he was reluctant to make a remark that might appear opposed to that course; but he had formerly seen cases of exhaustion where the rhythmical pains had merged into continued ineffectual sub-contraction, and where a full dose of opium, by procuring sleep, had been followed by restoration of power, and not unfrequently the uterus had awakened to its ordinary and successful function of expelling the fœtus.

Dr. ROGERS agreed with Dr. Cleveland that in some cases a full dose of opium was of essential service, as it induced sleep, to be followed by renewed uterine efforts and speedy delivery. But this could only be useful when there was no serious impediment to the labour, or want of harmony between the fœtal head and the pelvis. In such cases Dr. Rogers believed in the necessity of early interference, and when the natural pains gave way to a state of continuous contraction, he agreed with Dr. Hicks that it was time, without further delay, to bring the labour to a conclusion.

Dr. HICKS, in answer to the various speakers, said that the paper was not intended to be exhaustive. What he wished to show was the value set by various authors on the term "powerless labour," and he had very great difficulty in bringing the matter into a presentable form. He also was anxious to call attention to the constant occurrence of the continuous action which was the cause of the exhaustion in cases of so-called "powerless labour." In answer to the question of Dr. Cleveland regarding the employment of opium, he thought that, although in the early stages of this action opium in small doses might do some good, and by chance might cause relaxation, yet he had no hesitation in saying that, when the action was once confirmed, opium did more harm than good; it destroyed what little remained of the rhythmical pains, and then the child was helplessly held in the uterus—it died, decomposed, and destroyed the patient by the poison so engendered. He had seen many instances of this. Extraction, under these circumstances, was the proper plan. In answer to the President, he said he had not intended to imply that he did not recognise the "powerless labour" as occurring in the later stages. On the contrary, what he had said in the paper was that the special chapter on "powerless labour" referred to the first stage—contrary to some others. He did not dispute the term; he merely wished to show the variation on the subject.

"SPASM OF THE HEART."—The obituary list in the *Times* of Saturday last contained a notice of the death of a little boy, aged 7 years and 10 months, from "spasm of the heart"—whatever that may mean.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE first general session of this young and flourishing Society was held on Monday and Tuesday last at Willis's Rooms. The proceedings commenced on Monday afternoon. The report of the Council was read, which described the origin of the Association and its progress, the condition of the franchise question and the proposed future action, and concluded by asking for united and vigorous support on the part of every graduate of St. Andrews. The number of members after only six months of existence is 402. Dr. Sedgwick read a paper on "The University of St. Andrews and its Graduates," in which he vindicated the rights of his fellow graduates to the franchise of the University, and the necessity of re-opening the doors of the University to all qualified Practitioners as candidates for its degree, without the useless and injurious limitation of numbers, and guarded by the one necessary safeguard, a stringent examination.

The officers for 1868 were then elected, and are as follows:—*President*: B. W. Richardson, M.A., M.D., F.R.S., F.R.C.P. Lond., London. *Vice-Presidents*: H. Day, M.D., M.R.C.P. Lond, Stafford; J. Davidson, M.D., C.B., M.R.C.P. Lond., Inspector-General of Hospitals, Greenwich Hospital; W. Thiselton Dyer, M.D., London; R. Greenhalgh, M.D., M.R.C.P. Lond., London; P. Leonard, M.D., M.R.C.P. Lond., Inspector-General of Hospitals and Fleets, Norwood; Harrington Tuke, M.D., F.R.C.P. Ed., M.R.C.P. Lond. *Council*: G. W. Balfour, M.D., F.R.C.P. Edin., Edinburgh; T. Ballard, M.D., London; Edwards Crisp, M.D., London; H. Collett, M.D., Worthing; J. G. Davey, M.D., M.R.C.P. Lond, Bristol; C. Drysdale, M.D., M.R.C.P. Lond., London; T. O. Dudfield, M.D. London; G. Fayrer, M.D., F.R.C.S. Eng., Henley-in-Arden; W. Dean Fairless, M.D., Coupar Angus; S. Day Goss, M.D., London; M. Prosser James, M.D., London; J. Macintyre, M.D., Odiham; J. F. Nicholls, M.D., Devizes; W. Procter, M.D., York; E. Ray, M.D., F.R.C.S., Dulwich; Joseph Rogers, M.D., London; D. Lloyd Roberts, M.D., Manchester; J. Seaton, M.D., F.R.C.P. Edin., Sunbury; T. Skinner, M.D., Liverpool; Spencer Thompson, M.D., Torquay; R. Uvedale West, M.D., Alford; A. Wynn Williams, M.D., London; W. Bloxam, M.D., London; W. Cholmeley, M.D., M.R.C.P., London; W. F. Cleveland, M.D., London; L. O. Fox, M.D., F.R.C.S., Broughton; J. Hughlings Jackson, M.D., M.R.C.P. London; A. Keiller, M.D., F.R.C.P. Edin., F.R.S. Edin., Edinburgh; W. O'Connor, M.D., London; J. F. Powell, M.D., London; A. J. Pollock, M.D., M.R.C.P. Lond., London; J. Whitmore, M.D., London. *Honorary Treasurer*: J. Paul, M.D., M.R.C.P. Lond., F.R.C.P. Edin, F.R.C.S. Eng., Camberwell House, Camberwell, London, S. *Honorary Secretary*: Leonard W. Sedgwick, M.D., 2, Gloucester-terrace, Hyde-park, London, W.

On the motion of Dr. Wynn Williams, seconded by Dr. Griffith, it was resolved that the Lord Advocate and, if necessary, the Right Hon. B. Disraeli be requested to receive a deputation from the St. Andrews Medical Graduates' Association on the subject of the franchise of the University.

On Tuesday, the session was continued for scientific purposes. The President, Dr. Richardson, F.R.S., delivered his address on "Research in Medicine," which was received with enthusiastic applause by a numerous audience, amongst whom were Sir Thomas Watson, Bart., Admiral Sir Edward Belcher, K.C.B., etc., etc.

Reports and papers were read by Drs. Day, Procter, Wynn Williams, Edwards Crisp, Drysdale, Lloyd Roberts, Moffat, Shettle, Uvedale West, Mackinder, Cordwent, G. Buchanan, Smith, Nichols, and Sedgwick; on many of which an animated discussion took place.

The Council intend to publish the *Transactions* speedily.

In the evening the members and their friends to the number of eighty dined at the same place, the President in the chair. The dinner was good, the guests willing to please and to be pleased, so that the evening was spent in a most enjoyable fashion. After the Royal toasts, Lord Campbell responded to "The Houses of Parliament," Admiral Sir E. Belcher to "The Army, Navy, and Volunteers." Dr. Day proposed in warm terms "The Health of the President." Dr. Greenhalgh gave "The Sister Universities," to which Dr. Tilbury Fox responded. Dr. MacIntyre gave "The Medical Corporations," to which Sir W. Fergusson, Bart., and the Master of the Apothecaries' Society responded. Dr. Cholmeley gave

"The Learned Professions," to which the Rev. Dr. Bell and Mr. Serjeant Robinson responded. Dr. Ross gave "Science, Literature, and Art," to which James Glaisher, Esq., F.R.S., responded. Dr. Rogers gave "The Press," to which J. F. Clarke, Esq., responded.

Many graduates from all parts of England were there. The music was excellent, and was under the superintendence of Mr. Hatton. The Council of the St. Andrews Graduates' Association may be well satisfied with the great success of their first session.

STATHAM DEFENCE FUND.

Encouraged by the many liberal offers of help proffered to Mr. Statham on the occasion of the first abortive trial of the case of Absolon *v.* Statham, the friends and colleagues of that gentleman have resolved to endeavour to assist in defraying the heavy expenses entailed upon him by this action. They have ascertained that, although Mr. Statham did not feel justified in accepting pecuniary aid whilst the question was judicially undecided, he will, now that a verdict has been obtained in his favour, accept with much gratification the support of his friends. The following gentlemen have kindly consented to forward the object in view, and will be glad to be joined by any others who may be willing to assist:—

William Adams, Esq.
Thomas J. Ashton, Esq.
W. R. Ballard, Esq.
Thomas Bell, Esq., F.R.S.
W. G. Bennett, Esq.
J. D. Bush, Esq.
Samuel Cartwright, Esq.
W. A. N. Cattlin, Esq.
Dr. Cholmeley.
J. T. Clover, Esq.
Alfred Colman, Esq.
Dr. Crucknell.
John E. Erichsen, Esq.
Sir William Fergusson, Bart.
W. F. Forsyth, Esq.
Charles James Fox, Esq.
Dr. Fox.
John Gay, Esq.
W. A. Harrison, Esq.
Cæsar H. Hawkins, Esq., F.R.S.
Christopher Heath, Esq.
Duncan D. Hepburn, Esq., Nottingham.
Robert Hepburn, Esq.
G. A. Ibbetson, Esq.
T. Carr Jackson, Esq.
Dr. Prosser James.
Dr. Jenner, F.R.S.
Dr. F. C. Jones.
H. T. K. Kempton, Esq.
E. H. King, Esq.
S. A. Kirby, Esq., Bedford.
George Laurie, Esq.
Dr. Leared.
Dr. Lichtenberg.
Francis M'Clean, Esq., Dublin.
Dr. Morell Mackenzie.
Francis Mason, Esq.
Dr. Meadows.
J. R. Mummery, Esq.
Dr. Murray.
James Paget, Esq., F.R.S.
Thomas G. Palmer, Esq., Cheltenham.
Houghton Perkins, Esq.
Richard Quain, F.R.S.
A. P. Reboul, Esq.
Dr. B. W. Richardson, F.R.S.
Arnold Rogers, Esq.
Joseph Rogers, Esq.
S. L. Rymer, Esq.
Dr. Hyde Salter.
Dr. Arthur Sansom.
Edwin Saunders, Esq.
Josiah Saunders, Esq.
Buxton Shillitoe, Esq.
John Tomes, Esq., F.R.S.
Charles Vasey, Esq.
Gilbert Walker, Esq.
Dr. F. C. Webb.
Dr. Weber.
Erasmus Wilson, Esq., F.R.S.
Dr. Forbes Winslow.
A. J. Woodhouse, Esq.
Dr. Yearsley.

With the kind permission of Mr. Edwin Saunders, a meeting will be held at 13A, George-street, Hanover-square, on Monday, December 9, at 5 p.m., to decide upon the course to be adopted.

Gentlemen willing to co-operate will oblige by sending their names as early as possible to Charles James Fox, 27, Mortimer-street, Cavendish-square.

Royal Medical Benevolent College. — At a general meeting of the Governors of the College held at the office of the College, No. 37, Soho-square, on Thursday, November 28, Sir Charles Locock, Bart., M.D., in the chair, the following resolutions were passed:—Moved by George C. Jonson, Esq., and seconded by Dr. Carr, "That Henry Sterry, Esq., F.R.C.S., be appointed as treasurer to the Royal Medical Benevolent College, in the room of the late John Propert, Esq." Moved by Francis Hird, Esq., and seconded by Henry Hancock, Esq., "That a sum of 100 guineas be voted from the general funds of the College for a marble bust of the founder of the College, the late John Propert, Esq., to be placed in the College at Epsom."

OBITUARY.

R. WARRINGTON, ESQ., F.R.S.

Mr. Warrington, the well-known chemist and pharmaceutist, whose death we announced in a recent number, was born on September 7, 1807, at Sheerness, and was educated at Merchant Taylors' School. In the year 1822 he was apprenticed as house-pupil to Mr. T. S. Cooper, then lecturer on chemistry at the Medical Schools of Aldersgate-street and Webb-street. On the opening of University College, in 1828, Mr. Warrington was chosen as assistant by Dr. E. Turner, the first chemical professor, and performed the duties of this office at first in conjunction with William Gregory, the future professor in the University of Edinburgh, and afterwards by himself. In 1831, the firm of Truman, Hanbury, and Buxton being desirous of obtaining the services of a scientific chemist in their business, Professor Turner recommended Mr. Warrington for the post, and for eight years he held the position of second brewer in their house. During that time he published several papers in the *Philosophical Magazine* and a set of chemical tables for students. Soon after he was very active in the formation of the Chemical Society, which in a great measure owed its origin to his exertions. For ten years he was Secretary to the Society, and contributed many papers to their *Transactions*. On the death of Mr. Hennell, in 1842, Mr. Warrington was appointed Chemical Operator to the Society of Apothecaries, an office which he held until ill health compelled him to resign it in 1866. His professional engagements now became very numerous; in addition to those arising from his appointment he was especially consulted on questions of water supply and gas, and was for many years chemical referee to several of the metropolitan gas companies. On the foundation of the Cavendish Society in 1842, Mr. Warrington became its first secretary, and held the office for three years. His name will long be remembered as the inventor of *Aquaria*. It is a fact worthy of notice that to two gentlemen intimately connected with the Society of Apothecaries we owe discoveries which have done more to diffuse a taste and love for natural history amongst the upper and middle classes than any others of which we are aware. Mr. Ward, the present venerable treasurer of that Society, was the first who introduced the cultivation of plants in glass cases, and to Mr. Warrington we owe *aquaria* both for the denizens of fresh and sea water. Mr. Warrington's first experiments on the relations of animal and vegetable life were made in 1849. He communicated his results to the Chemical Society in 1850; many of his observations were also published in the "Annals of Natural History," and he lectured on *aquaria* at one of the Friday evening meetings of the Royal Institution in 1857. He was also an active microscopical observer, and invented a portable microscope which is figured in Carpenter's Manual. In 1864, he was elected F.R.S. He was consulted as a chemist by the Royal College of Physicians in the preparation of the Pharmacopœia of 1850, by the London and Edinburgh Committees engaged in producing the British Pharmacopœia of 1864, and he was one of the editors of the Pharmacopœia of 1867. Amongst his other labours was the editing, with T. Denham Smith, Phillips's translation of the London Pharmacopœia of 1850, and the part he took with Dr. Farre in preparing the condensed edition of Pereira. After a life thus spent in valuable scientific labour, he died at Budleigh Salterton on November 12 last.

NEW BOOKS, WITH SHORT CRITIQUES.

Principles of Chemistry founded on Modern Theories. By A. Naquet, Adjoint Professor in the Faculty of Medicine, Paris. Translated from the Second Edition by W. Cortis. Revised by Thomas Stevenson, Lecturer on Experimental Philosophy and Demonstrator of Practical Chemistry at Guy's Hospital. London: Renshaw. Pp. 848.

*** This, which we esteem one of the most important works on modern chemistry, has been translated from the original with great care and fidelity. For that Dr. Stevenson's name is sufficient pledge. We cannot, however, now stop to analyse it at full length, for it is probably the most scientific treatise on chemistry in the English language. With great regret we learn that the mind of the distinguished author has given way under his labours. He has been sent to an asylum.

Handbook of Physiology. By W. Senhouse Kirkes, M.D. Sixth edition, edited by W. Morrant Baker, F.R.C.S., Demonstrator of Anatomy and Operative Surgery, and Warden of the College, St. Bartholomew's Hospital. London: Walton. Pp. 802.

*** We have looked forward with anxiety for the appearance of this new edition of Dr. Kirkes's work now that the author is no more to revise it, and we confess that we are more than gratified. The book has long been the favourite work on physiology among students, and it was fitting

that, for their use, it should be especially adapted. As a storehouse of information in physiology no book can take the place of Carpenter's large work, but for the majority of students it is unwieldy, and contains too many facts. To a certain, though less, extent this was the fault of the former editions of Kirkes's Physiology; there were so many conflicting views stated that the student did not know where or how to choose aright. All that is altered by Mr. Baker in a most judicious fashion; some parts are added to, some are shortened. Several diagrams are added, and, what we consider of very great importance, a short account of the structure of all the tissues is now given. For full details on this subject the reader is referred to that gem of Medical literature, Professor Sharpey's treatise on General Anatomy. Every way we are pleased with the book.

The Practice of Medicine and Surgery applied to the Diseases and Accidents incident to Woman. By Wm. H. Byford, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Chicago Medical College. Second edition, enlarged. Philadelphia: Lindsay and Blakiston. Pp. 616.

*** This work treats of well nigh all diseases incidental to women—diseases and accidents of the vulva and perinæum, stone in the bladder, inflammation of the vagina, menstruation and its disorders, the uterus and its ailments, ovarian tumours, diseases of the mammæ, puerperal convulsions, phlegmasia alba dolens, puerperal fever, etc. Its scope is thus of the most extended character, yet the observations are concise, but convey much practical information. There are points on which we should differ from the author, but these cannot be noticed except in a more extended survey of the book.

Epidemic Meningitis, or Cerebro-Spinal Meningitis. By A. Stillé, M.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, etc. Philadelphia: Lindsay and Blakiston. Pp. 178.

*** An epidemic somewhat similar to that which prevailed in Ireland a short time ago has for years raged in America. Dr. Stillé here gives his experience of the disease, and, what will be of especial value to subsequent investigators, the bibliography of the subject. As an addition to the German and Irish experiences, this work possesses great interest and value.

The Mad Folk of Shakespeare. By J. C. Bucknill, M.D., F.R.S., F.R.C.P. Second Edition. London: Macmillan. Pp. 333.

*** A new edition of Dr. Bucknill's pleasant essays on Shakespeare's mad characters will be welcomed by many, not only psychologists, but also lovers of our great English genius.

The Essentials of Bandaging, including the Management of Fractures and Dislocations. By Berkeley Hill, M.B., F.R.C.S., Instructor in Bandaging, University College; Assistant-Surgeon, University College Hospital, etc. London: Walton. 1867.

*** This neat little volume will prove of great assistance to the student: the figures are good, the instructions extremely clear and simple, and it contains much in small space. Now that bandaging is so much insisted on at the practical part of the examination at the College of Surgeons, we can recommend no better book to intending candidates than Mr. Hill's little work.

The Nature and Affinity of Tubercle, being the Gulstonian Lectures for 1867. By Reginald Southey, M.D. Oxon., F.R.C.P., Assistant-Physician to St. Bartholomew's Hospital.

*** Our readers will probably remember the full abstract we gave of Dr Southey's valuable lectures. They were for the most part pathological, and sought to establish a distinction between scrofula and tubercle. They are now published in a separate form, which our readers will find more convenient, the division into chapters being a far better one, in this instance at least, than into lectures.

A Manual of Pharmacy for the Student of Veterinary Medicine. By W. J. J. Morton, late Professor of Chemistry and Materia Medica in the College, etc. Seventh edition. London: Longmans. Pp. 360.

*** A useful and scientific treatise on the subject.

Medical Photographs. G. Crelling, 162, Regent-street, W.

*** The wise ancients forbade that any man should be called happy till he was dead and buried. We say, as a paral el *dictum*, or *mot*, or *saw*, or *ego*, call no man handsome until he has been photographed. Of course the photographic artist is responsible for a great deal. He may simply blast you with excess of light; may hide all features in one bright glare, as if he were photographing a delf plate, leaving eyes and mouth as black spots punched out in cardboard. But be the merits or demerits of the photographer what they may, although he may do the best possible for a face like a dumpling, or the worst with the features of a philosopher, yet he cannot turn out a very good portrait unless he have a very good sitter; and what a test of character is the simple operation of sitting to be photographed! It is only straightforward, self-reliant men who resemble the artist to turn out a really well-posed portrait—easy, unaffected, and in thorough equilibrium and repose. On the other hand, a distressing self consciousness and want of ease seems to haunt many a sitter. They cannot be content without trying to put on something better, or wiser, or pleasanter than the look into which habit has set their features. May we reckon up anatomically the various mechanical devices for improving the features? An air of pompositty, meant for dignity, is got by the *levator menti*, which lifts the chin and protrudes the lower lip; firmness by the *orbicularis oris*; sagacity by the *corrugator supercilii*; the stereotyped smile of the actress by the *zygomatici*; a look of pensiveness by the inner fibres of the *occipito-frontalis*; and of piety by the *depressor labii superioris*, which brings down the upper lip, whilst the chin is pulled down a little by the digastric. We have been led to these reflections by the sight of a bundle of Mr. Crelling's photographic portraits of some of our most eminent *confreres*, in which we are delighted to see good workmanship employed on good material, and the result is a series of self-possessed, easy, gentlemanly, and powerful-looking physiognomies. We are particularly pleased with the portraits of Wharton Jones, Grailly Hewitt, Sir Henry Thompson, Drs. Broadbent and Habershon, and, above all, of Professor Williamson.

*** Three additional portraits of Skin Diseases have reached us from the New Sydenham Society. They constitute the seventh fascicle, and represent Molluscum fibrosum, Lupus-psoriasis, and Common Porrigo. They are neither better nor worse than those which have preceded them.

BARNETT *v.* ROBERTS.—This case, on which we briefly commented last week, was terminated by the jury returning a verdict for the plaintiff—damages one farthing.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having undergone the necessary examinations were admitted Licentiates in Midwifery at a meeting of the Board on the 4th inst., viz.:—

Messrs. John Griffith Lock, M.A. Cantab., Tenby, South Wales, diploma of Membership dated July 23, 1867; Nathaniel Howard Jarvis, Kingsbridge, Devon, July 23, 1867; and William George Kemp, L.S.A., Canterbury, November 12, 1867 (students of St. Bartholomew's Hospital); John M'Mullin, L.R.C.P. Edinb., Castle Dawton, county Derry, November 6, 1857, and John Walton Browne, M.D. Queen's University, Belfast, November 13, 1867 (of the Belfast School); Frederick Henry Alderson, L.S.A., Avenue-terrace, Hammersmith, May 7, 1863 (of the Middlesex Hospital); Thomas Fawsitt, Oldham, July 23, 1867 (of the Manchester School); Freiierick Wallace, L.S.A., Hackney-road, July 25, 1867 (of Guy's Hospital); and Fredcrick Walter Smith, L.S.A., Brenchley, Kent, May 7, 1867 (of St. Thomas's Hospital).

It is stated that three candidates out of the twelve failed to acquit themselves to the satisfaction of the Board.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 28, 1867:—

William Richard Davies, Carmarthen, South Wales; Richard Henry Prior, Chicester, Sussex; George Francis Jones, Prittlewell, Essex; John Wreford Langmore, 12, Sussex-gardens, W.; David McKay Cassidy, Sydenham-park, S.E.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARNISON, W. C., M.R.C.S.E., has been appointed Surgeon to the Newcastle Infirmary.

BROWN, D. DYCE, M.A., M.D., has been elected one of the Medical Officers of the Aberdeen General Dispensary, *vice* Dr. Sutherland, deceased.

BROWN, J. C., B.Sc. Lond., late Assistant to the Professor of Chemistry at the University of Aberdeen, has been appointed Lecturer on Chemistry and Toxicology at the Liverpool Royal Infirmary School of Medicine.

BURCH, S. K., M.R.C.S.E., has been appointed Surgeon to Emanuel Hospital, Westminster.

FISHER, GEORGE, M.R.C.S.E., has been elected House-Surgeon and Secretary to the General Dispensary, Worksop, Nottinghamshire, *vice* Philip John Simpson, M.R.C.S.E., resigned.

LUCAS, G., M.R.C.S.E., has been appointed House-Surgeon and Apothecary to Addenbrooke's Hospital, Cambridge.

WILLCOX, R. L., M.R.C.S.E., has been appointed House-Surgeon to King's College Hospital.

BIRTHS.

CLAREMONT.—On November 24, at Millbrook House, Hampstead-road, the wife of C. C. Claremont, M.R.C.S., of a daughter.

FRODSHAM.—On November 29, at Upper Streatham, the wife of J. M. Frodsham, M.D., of a daughter.

HOUGHTON.—On November 27, at 6, Mount-street, Grosvenor-square, the wife of Dr. Henry Houghton, of a daughter.

KNAGGS.—On November 25, at Winchester, the wife of H. Knaggs, Staff Assistant-Surgeon, of a daughter.

LATHAM.—On December 1, at Cambridge, the wife of P. W. Latham, M.D., of a son.

LAWSON.—On December 4, at 12, Harley-street, Cavendish-square, the wife of G. Lawson, F.R.C.S., of a son.

MOORE.—On November 28, at 7, Museum-street, Ipswich, the wife of H. Moore, L.R.C.P. Lond., of a son.

MOORE.—On November 28, at 28, Old Steine, Brighton, the wife of T. Moore, F.R.C.S., of a daughter.

SHEA.—On December 3, at 16, Dorset-terrace, Clapham-road, the wife of J. Shea, M.D., prematurely of a daughter, stillborn.

THURSFIELD.—On November 21, at Broseley, Salop, the wife of T. G. Thursfield, M.D., of a daughter.

WALES.—On November 30, at No. 6, Clarence-place, Woolwich-common, the wife of J. Wales, Esq., Assistant-Surgeon, Royal Artillery, of a son.

WALTERS.—On December 1, at Reigate, the wife of Dr. Walters, M.B., of a son.

MARRIAGES.

EARLE—CARRUTHERS.—On November 26, at St. Stephen's, Westbourne-park, F. J. Earle, M.D., H.M. Indian Service, to Edith Louisa, fifth and only surviving daughter of Lieut.-Colonel Carruthers, late of the 2nd Madras Light Cavalry.

ETESON—FENTON.—On December 3, at Christ Church, Ealing, A. Eteson, Surgeon, Bengal Army, to Evelyn Margaret, second daughter of J. Fenton, Esq., Haven-green House, Ealing.

GILL—HOW.—On November 28, at the parish church, Bromley St. Leonard, J. B. Gill, M.D., of Dover, to Clara Frances, eldest daughter of the Rev. A. G. How, vicar of Bromley St. Leonard. No cards.

DEATHS.

ARNOT, Dr. H. R. N., late Surgeon H.M.S. *Doris*, at St. Thomas's, on October 29.

CHAPMAN, H. Y., M.R.C.S.E., Surgeon to the Peninsular and Oriental Steam Navigation Company's steamer *Poonah*, on November 14.

CLARK, T., M.D., at Clydeview, Partick, Glasgow, on November 27.

FINCH, W. C., M.R.C.P., at the Hall, Fisherton, Salisbury, on December 3, aged 63.

HECKFORD, G. E., Surgeon, at Gamlinghay, Beds, on December 2, aged 80.

RICHARDSON, W. T., formerly Surgeon-Major, Scots Fusilier Guards, and Surgeon Extraordinary to H.R.H. the Duke of Cambridge, at Charlwood-street, Pimlico, on December 2, aged 68.

ROBINS, G., L.R.C.P. Edin., of Charlotte-street, Fitzroy-square, on November 13, aged 60.

SNOWDEN, G., F.R.C.S., at Ramsgate, on December 1, aged 59.

WEST, C. O., M.R.C.S., late of Westminster, and Conchmore, Thames Ditton, at Brighton on November 27, aged 66.

VACANCIES.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—Resident House-Surgeon.

LANCASTER INFIRMARY.—House-Surgeon.

LITTLEMORE COUNTY LUNATIC ASYLUM.—Medical Superintendent.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Alderbury Union.—Mr. John Winzar has resigned the Fifth District; area 5229; population 4466; salary £51 per annum.

Stockton Union.—Mr. Robert Young has resigned the Yarm District; area 21,003; population 3742; salary £45 per annum.

APPOINTMENTS.

Ashby-de-la-Zouch Union.—Joseph Hatchett, M.D. St. And., M.R.C.S.E., L.S.A., to the Fifth District.

Huntingdon Union.—Lancelot Newton, M.R.C.S.E., L.S.A., to the Alconbury and Sawtrey Districts.

Tamworth Union.—Edward N. Martin, L.K. & Q. Coll. Phys. Ire., L.R.C.S. Ire., to the Clifton District.

MR. JAMES RENNIE, M.A., and formerly Professor of Zoology in King's College, London, died recently in Australia.

NEW MEDICAL CORONER.—We are happy to announce that Mr. D. R. Pughe, Surgeon, of Machynlleth, has been elected coroner for the western district of the county of Montgomery. The election took place on Saturday, November 23.

AMONG recent promotions in the Army Medical Department we are glad to observe that Surgeon-Major F. Reid, principal Medical Officer at the Mauritius, has been promoted to the rank of Deputy Inspector-General of Hospitals, for his services during the late epidemic of fever in that island.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN IN LONDON.—On Monday, December 3, at a meeting of the Council of the above Society, Mr. Blackett, of Green-street, Grosvenor-square, was elected to the office of secretary in room of Dr. Merriman, who retires.

EDINBURGH OBSTETRICAL SOCIETY.—The following office-bearers were elected for the next two years at the meeting held on the 27th ultimo:—*President:* Dr. Burn. *Vice-Presidents:* Dr. W. Bryce, Dr. J. A. Sidey. *Treasurer:* Dr. James Young. *Secretaries:* Dr. R. Peel Ritchie, Dr. G. Stevenson Smith. *Council:* Dr. Menzies, Dr. Keiller, Dr. Stephenson.

TESTIMONIAL TO DR. MACCORMAC, OF BELFAST.—A handsome letter of acknowledgment has been sent to Dr. MacCormac by Baron James de Rothschild, Président du Conseil d'Administration de la Compagnie du Chemin de Fer du Nord, on account of the skill and humanity displayed by him on the occasion of the recent accident on that line. Accompanying the letter was a pass for every part of the Chemin de Fer du Nord up to the end of 1868.

SOUTH LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society, numerously attended by the Medical Practitioners of South London, was held on Tuesday, December 3, at the Ophthalmic Hospital, Southwark, J. Z. Laurence, Esq., in the chair. The Chairman having made a few remarks with reference to the preliminary meetings which had been held, a code of laws was adopted for the government of the Society. The following gentlemen were then elected as the officers for the ensuing year:—*President:* Dr. Clapton. *Vice-Presidents:* Dr. Gervis, Dr. Ray, E. B. Jones, Esq., and Cooper Forster, Esq. *Treasurer and ex-officio Vice-President:* J. Z. Laurence, Esq. *Council:* Dr. Bateson, Dr. Nichols, Dr. Kempthorne, Dr. Dixon, Dr. Tanner, H. Brentchley, Esq., John Lacey, Esq., H. J. O'Donnell, Esq., and E. Chabot, Esq. *Honorary Secretaries:* Robert C. Moon, Esq., and Dr. Constable. It was resolved that the next meeting of the Society should be held on the second Thursday in January, 1868, at 8 o'clock in the evening, when Dr. Clapton will deliver an inaugural address.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting, Monday, December 2, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, George Willoughby Hemans, Esq., M.I.C.E., F.R.G.S., William Daniel Michell, Esq., and Morgan Bransby Williams, Esq., M.I.C.E., were elected Members of the Royal Institution.

LEARNED LADIES.—The University of London has asked for and accepted a new charter, empowering it to test the education of young ladies. It is understood that the test proposed is to be equivalent to the matriculation examination for young men. A lady correspondent wishes to know whether the examiners are to be married men, bachelors, or widowers.

PHOTOGRAPHING IN JAPAN.—In the report of Mr. S. Locock, Secretary of Embassy in Japan, it is stated that in the city of Osaka there are no less than forty native photographers, obtaining their lenses, plates, and chemicals from abroad, and all finding full occupation.

BARBADOES.—We regret to state that yellow fever has made its appearance at Barbadoes. Two officers of the 2nd Battalion 16th Regiment (Captain Sheringham and Ensign Clement) have already fallen victims. The regiment has been moved to Gun-hill, about eight miles in the interior, where it is encamped. There is only one case in Hospital at present—viz., Mess-Sergeant Russell. The regiment has lost six officers by this fever in one year.

THE November meteors seem to have been seen in perfection at Toronto Observatory, whence Mr. T. G. Kingston, the director, writes word that the numbers observed were as follows:—From midnight to 1 a.m., 20; from 1 a.m. to 2 a.m., 44; from 2 a.m. to 3 a.m., 123; from 3 a.m. to 4 a.m., 560; from 4 a.m. to 5 a.m., 1345; from 5 a.m. to 6 a.m., 195; giving a total of 2287. The shower was seen to great advantage throughout the United States. Professor Watson, of the Michigan University, reports that he counted the falling meteors at the rate of 1500 an hour. The greatest number were visible about four in the morning.

"PYRETIC SALINE."—This salt, which we believe principally consists of tartrate of soda, has lately been made the subject of litigation. Mr. Lamplough, the chemist who advertises it, brought an action to restrain one Balmer from selling a similar preparation under the name of "pyretic salts." The prosecutor produced an affidavit from Dr. Stevens, of "saline cure for cholera" celebrity, in support of the virtues of "pyretic saline" as a cure for cholera. Unfortunately for the plaintiff, he had used the title "By Royal letters patent," to which he had no right, and on this ground the Vice-Chancellor refused the motion.

THE ELAND AS FOOD.—The price of eland at present is about £80 a head, so that, as an article of diet, it is a somewhat expensive luxury. There is no reason, however, why the animal should not be naturalised—acclimatised we should have said—by our cattle-dealers. Lord Hill's intended exhibition of a fat male eland, at the approaching cattle-show, may, therefore, be the first step towards the general introduction of a new joint into England.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN NOVEMBER, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling	
Thames Water Companies	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	19·83	0·86	0·38	13·5	4·0	0·004
West Middlesex	19·17	0·95	0·21	13·0	4·0	0·004
Southwark & Vauxhall	20·50	0·75	0·32	14·0	4·5	0·004
Chelsea	—	—	—	—	—	—
Lambeth	19·33	0·90	0·73	13·0	4·0	0·004
Other Companies.						
Kent	27·83	0·25	0·15	17·5	7·5	0·004
New River	18·93	0·75	0·20	13·5	3·0	0·004
East London	20·09	1·00	0·29	13·0	4·0	0·004
Surface Wells.						
Basinghall-street	80·33	3·75	2·04	38·0	—	0·140
Guildhall	37·00	2·00	1·02	19·0	—	0·060

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

DR. ROGERS AND THE GUARDIANS OF THE STRAND UNION.—We regret to see that Dr. Rogers, the Medical Officer of the Strand Union Workhouse, has been suspended by the Guardians of that Union, at a meeting held on Tuesday last. Already five of the Guardians—Messrs. Bonham, Charles, Ruffell, Jefferys, and George—have appealed to the Poor-law Board against the decision of their colleagues. In their letter to the Board they write thus in reference to the treatment Dr. Rogers has received from the Board:—"We also beg to state that this gentleman has received great provocation repeatedly from several of the Guardians, and also that this resolution was passed without any notice having been issued. If such had been done, strong opposition would have been offered. The antagonism which he has met with at various times from members of the Board has mainly been excited by the great exertion he has made to bring about reform in the treatment of the sick poor, and which helped the passage of the Metropolitan Poor Act. We therefore trust your hon. Board will rescind this resolution, and permit this gentleman to return to his duty."

DR. CONNEAU, who has recently been elected a senator of France, and who is Physician to the Emperor, was, it appears, formerly secretary to the Emperor's father, King Louis of Holland. Relinquishing the pen for the lancet, and completing his Medical studies, he was made Physician to Queen Hortense, and was subsequently engaged with Louis Napoleon in the celebrated Boulogne adventure, which resulted in the incarceration of both in the fortress of Ham. Dr. Conneau requested, and was permitted, to occupy Napoleon's cell, and was mainly instrumental in carrying out the ingenious devices for the escape of the then Prince, and now Emperor Napoleon.

PATHOLOGICAL SOCIETY OF DUBLIN.—The first meeting of the twenty-ninth annual session of the above Society was held on November 30 in the Anatomical Theatre of Trinity College, Sir Dominic Corrigan, Bart., in the chair. There was an unusually large attendance of members. Dr. Robert MacDonnell, F.R.S., exhibited specimens of the trichina. The subject had died in one of the Union Workhouse Hospitals, having laboured for some time under pulmonary consumption. Some months ago, he suffered from symptoms of an anomalous fever, from which time Dr. MacDonnell dated the invasion of his system by the parasite. The latter was found in immense numbers occupying almost exclusively the voluntary muscles. Dr. MacDonnell instituted a careful search for it, in vain, in the heart, and throughout the glandular system. Specimens of the entozoon were exhibited under microscopes, and Dr. MacDonnell entered at length into the nature of the disease, its mode of development, progress, etc., illustrating his remarks with diagrams and extracts from the papers of Virchow and others upon the subject. Dr. William Moore exhibited a liver which was greatly enlarged and completely pervaded with malignant tubera. Dr. Edward Hamilton brought forward a very well-marked specimen of disease of the mitral orifice of the heart with pulmonary congestion and disease of the liver. This organ had assumed the size and shape of a greatly enlarged spleen; the left lobe was reduced to a mere fragment not larger than the degenerated thymus gland. Dr. Hayden exhibited a very striking example of pleurisy, with great thickening of both layers of the serous membrane considerable effusion of lymph, and effusion of a large quantity of serum. The patient had died rather suddenly. The pleurisy was of the partial form, the upper third of the lung being universally adherent, and so unaffected by the pleuritic effusion, except from beneath, where, of course, it could exert only a certain amount of pressure. Dr. Churchill, President of the College of Physicians, exhibited a small fibrous tumour which had been removed from the os uteri by the écraseur and by the scissors. Sir Dominic Corrigan announced that the subject for the Society's gold medal, to be awarded at the close of the session, would be "Cerebro-spinal Meningitis." The Society then proceeded to the election of officers for the year ending November, 1868, when the following were elected:—*President:* Samuel Gordon. *Vice-Presidents:* Joseph M. O'Ferrall, John Denham, George Kidd, Robert Adams, James Duncan, George H. Porter. *Council:* John T. Banks, Thomas Beatty, Maurice Collis, Sir Dominic J. Corrigan, Bart., Christopher Fleming, Edward Hamilton, James S. Hughes, Henry Kennedy, Alfred H. M'Clintock, Robert MacDonnell, Benjamin G. M'Dowel, Joliffe Tufnell. *Honorary Secretary:* William Stokes. *Secretary and Treasurer:* Robert W. Smith. *Secretary for Foreign Correspondence:* Robert D. Lyons. Dr. Gordon proposed a cordial vote of thanks from the Society to their late President, Dr. Robert W. Smith, for his valuable services during his year of office, and for the untiring energy with which he had as Secretary conducted the affairs of the Society since its original formation. This motion was seconded by Mr. Porter, Vice-President of the College of Surgeons, and was unanimously carried.

WOUNDS IN VACUO.—At the sitting of the Academy of Sciences, on Monday, the 25th ult., M. Guérin gave a description of his new apparatus for the removal of air from wounds. M. Guérin believes that wounds heal with greater rapidity when the air is excluded from them by the employment of an apparatus than when they are treated in the ordinary manner. The instrument he has hitherto used for the exhaustion of the air has been already described, and is familiar to most of our readers. The new apparatus is an immense improvement upon the old one, inasmuch as it is more thoroughly scientific and precise, and it admits of being employed on a large scale. The apparatus which M. Guérin has now devised overcomes all the obstacles which his first instrument encountered. It consists of a glass globe having three separate apertures. In the central opening is placed a manometer, by which the amount of vacuum may be gauged with precision. Of the two others one is placed in communication with an air-pump and vacuum chamber, and the other is adapted to the wound. The manometer consists of a barometer tube which ends in a bulb of india-rubber, placed within the globe, and open externally to the air; both the tube and bulb contain mercury. According as the air is removed from the globe, the mercury, pressed on by the outer air, expands the bulb, and, by descending in the graduated stem, gives a definite indication of the extent of the vacuum. The globe is put in communication with the cup which encloses the wound in the usual manner. The chief advantage which M. Guérin claims for this apparatus is that it meets the wants of a great number of patients. The one aspirator may, by a system of tubes fastened along the walls of the ward, and having branches for each bed, be used for almost any number of wounds. M. Guérin promises at the next meeting of the Academy to give an account of the results obtained with the new instrument.

WHAT IS DYSPEPSIA?—A celebrated gastronomic writer has defined it—with more humour than truth—to be the "ingratitude of the stomach."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Anatomist.—Consult Pole's "Anatomical Instructor."

S. C.—Apply to any respectable Medical man, but not to an advertising quack.

F.R.C.S.—We have reason to know that the error so eagerly pounced upon by our contemporary crept into the examination paper after it had left the hands of the examiners for those of the printer. The correction was not suggested by one of the candidates, but was made immediately the paper reached the hands of the presiding examiner.

A Pupil.—If you apply at once, perhaps you will be allowed to present yourself at the Preliminary Examination in Arts, which takes place next week at the College of Surgeons.

F.R.C.S. Eng.—An additional fee of 5*s.* will be required of you for the qualification just taken. During last year the Medical Council received £73 5*s.* in sums of 5*s.* each for 293 additional qualifications.

A Dentist, Liverpool.—The Board seldom meet; write to the Secretary. The total number of Licentiates in Dental Surgery in the Calendar of the College of Surgeons is 293. Messrs. Tomes, Cartwright, and Harrison are the examiners, with Messrs. South, Luke, and Skey.

K. C. Associate.—Professor Daniell died suddenly in the Council Room of the Royal Society on March 13, 1845. A memoir of the deceased appeared in vol. xi. p. 551 of this Journal. Mr. Stone published portraits of Todd, Budd, and Fergusson.

H. M., Manchester.—The regulation is that, if in any year one of the three retiring members be President of the College, he does not go out of office until the succeeding year.

Arthur.—With the death of the gentleman named, the office of Hospital Director was abolished. In the other case, the gentleman received £150 per annum out of the funds of the charity.

Dr. Morgan.—The lines referred to were written by Dean Swift on Dr. Arbuthnot:—

> "Removed from kind Arbuthnot's aid,
> Who knows his art, but not his trade,
> Preferring his regard to me
> Before his credit or his fee."

An Old Accoucheur.—Coleridge says, in his Table Talk, "I think there are only two things wanting to justify a Surgeon in performing the Cæsarian operation; first, that he should possess infallible knowledge of his art, and, secondly, that he should be infallibly certain that he is infallible." See the *Medical Gazette* vol. xvi. p. 320.

Old Bailey.—The practice of placing rue in front of the prisoners during trial is, we think, discontinued. The partiality or antipathy to certain odours is unaccountable; the Italian ladies, who dislike the rose, delight in the disgusting aroma of rue, which, according to their notions, dispels the *cattiva aria*, although it is not impossible that they might fancy it possessed of those salutary qualities to which Ovid alluded :—

"Utilius, summas acuentes lumina rutas,
Et quidquid Veneri corpora nostra negat."

A London Actuary.—Dr. Casper, of Berlin, in an interesting work on the duration of human life, gives the following conclusions :—

Clergymen,	medium longevity	. . .	65 years
Merchants	,,	,, . . .	62 ,,
Clerks	,,	,, . . .	61 ,,
Farmers	,,	,, . . .	61 ,,
Military men	,,	,, . . .	59 ,,
Lawyers	,,	,, . . .	58 ,,
Artists	,,	,, . . .	57 ,,
Medical men	,,	,, . . .	56 ,,

The medium duration of life is, in Russia, about 21 years; in Prussia, 29; in Switzerland, 34; in France, 35; in Belgium, 36; and in England, 38 years.

THE LATE GENERAL ORDER REGARDING ARMY MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With regard to the late General Order which exempts Medical officers from serving on any Board except a Medical Board, and obliging Medical officers ranking as field officers to buy a charger, with horse furniture, and appear mounted on parade, perhaps it may be worth while to ask the question whether absolving Medical officers from appearing on parade at all, as well as from serving on Military Boards, would not have given more general satisfaction. It is not likely that many Medical officers have a fancy for seeing themselves on parade, and what their use is there, looking on at military evolutions in which they take no part, I should like to be informed. How often in the year will an Infantry Surgeon have to appear mounted, that he should be obliged to buy a horse for the purpose? I am, &c. A MEDICAL OFFICER.

COMMUNICATIONS have been received from—

Mr. J. C. BROWN; Mr. WARINGTON; R. E. P.; Dr. RITCHIE; Dr. DYCE BROWN; ANATOMIST; Mr. MCCALL; F.R.C.S.; Dr. DICKSON; S. C.; Mr. CORNISH; Mr. SEDGWICK; Mr. REEVES; Prof. ROLLESTON; Mr. PUGHE; Dr. FOTHERBY; Mr. F. P. SMITH; A MEDICAL OFFICER; Mr. FOX; Mr. FREEMAN; Dr. BALL; C. R. B.; Dr. STONE; Mr. W. WILSON; Mr. J. J. ATKINSON; Messrs. WRIGHT and NASH; Dr. LETHEBY; Mr. E. FLEMING; Prof. LAYCOCK; Dr. DAY; Dr. N. G. MERCER; Dr. SIMPSON; Mr. CHATTO; Mr. ROBERT C. MOON.

BOOKS RECEIVED—

Rumsey's Address on State Medicine—Dental Journal, October and November—Journal of the Scottish Meteorological Society, No. 16—Report on the Ports of the Red Sea—Glasgow Medical Journal, No. 20—Edinburgh Medical Journal, No. 150—Pharmaceutical Journal, No. 162—Report of the Association of Medical Superintendents of American Institutions for the Insane—Proceedings of the British Pharmaceutical Conference—Turner's Introductory Lecture on Anatomy.

NEWSPAPERS RECEIVED—

Jamaica Gleaner—Delhi Gazette—Ayr Observer—Dublin Medical Press—Hexham Courant—Greenwich and Deptford Chronicle.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 30, 1867.

BIRTHS.

Births of Boys, 1015; Girls, 1002; Total, 2017.
Average of 10 corresponding weeks, 1857-66, 1852·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	826	762	1588
Average of the ten years 1857-66	789·7	741·0	1480·7
Average corrected to increased population..	..	..	1629
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	3	9	3	2	11	5	3	..
North ..	618,210	5	11	13	2	6	20	7	..
Central	378,058	1	7	12	..	1	6	1	..
East ..	571,158	1	7	4	..	10	9	4	..
South ..	772,175	4	16	12	2	8	15	4	..
Total ..	2,803,989	14	50	44	6	36	55	19	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·147 in.
Mean temperature	37·7
Highest point of thermometer	47·7
Lowest point of thermometer	27·5
Mean dew-point temperature	33·5
General direction of wind	S.W.
Whole amount of rain in the week	0·23

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 30, 1867, in the following large Towns :—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre (1867.)	Births Registered during the week ending Nov. 30.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Nov. 30.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2017	1421	1568	47·7	27·5	37·7	0·28	23
Bristol (City) .	165572	35·3	77	74	103	55·5	25·5	37·9	0·77	78
Birmingham (Boro')	343948	43·9	236	167	166	48·0	28·4	38·3	0·05	5
Liverpool (Borough)	492439	96·4	349	285	303	55·5	33·8	40·5	1·22	123
Manchester (City) .	350823	80·9	238	205	‡226	53·0	24·0	36·9	1·69	171
Salford (Borough) .	135013	22·2	69	58	72	48·4	22·5	36·8	1·53	155
Sheffield (Borough).	225199	9·9	167	119	152	48·9	27·0	38·4	0·43	43
Leeds (Borough) .	238428	10·8	230	118	104	53·0	24·5	39·4	0·48	48
Hull (Borough) .	106740	30·0	75	49	48	47·0	23·0	37·1	0·47	47
Newcstl-on-Tyne, do.	124960	23·4	83	66	61	48·0	33·0	39·7	0·00	0
Edinburgh (City) .	176081	39·8	123	85	91	48·7	32·0	41·5	0·50	51
Glasgow (City) .	440979	87·1	344	257	276	..	..	..	..	..
Dublin (City and some suburbs) .	319210	32·8	153	†157	158	56·7	25·0	41·1	0·61	62
Total of 13 large Towns . .	6157764	34·8	4166	3061	3343	56·7	22·8	38·9	0·67	68
					Week ending Nov. 23.	Week ending Nov. 23.				
Vienna (City) .	(1863) 560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·147 in. The barometrical reading decreased from the very high reading of 30·49 in. on Sunday, Nov. 24, to 29·39 in. by the end of the week.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the two rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 39·6°.

APPOINTMENTS FOR THE WEEK.

December 7. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

9. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

10. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. H. H. Howorth, Esq., "On the Origines of the Norsemen." H. C. Criswick, Esq., "Life amongst the Vers."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Dr. George Johnson, "On Bright's Disease, and on the Influence of the Minute Blood-vessels upon the Circulation."

11. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 2 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

HUNTERIAN SOCIETY (Council, 7½ p.m.), 8 p.m. An Open Meeting.

MICROSCOPICAL SOCIETY, 8 p.m. Chas. Stewart, Esq., M.R.C.S. and F.L.S., "On the Pedicellariæ of the Cidaridæ, and on the Structure of the Calcareous Rosette and Ring of the Ambulacral Tube in the Regular Echinidæ."

12. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

13. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

CLINICAL LECTURES,

DELIVERED AT

The Hôpital de la Pitié,

By Dr. BÉHIER,

Professor of Clinical Medicine at the Paris Faculty; Member of the French Academy of Medicine; Officer of the Legion of Honour, etc.

ON CEREBRAL HÆMORRHAGE.(a)

GENTLEMEN,—I wish to call your attention to those alterations of the peripheral parts of the nervous system which result from cerebral hæmorrhage. We are chiefly indebted for our knowledge on this point to that School of the Salpétrière of whose labours you have so frequently heard me speak.

The patient whose case will form the subject of the present lecture is a man, aged 56, who for the last two years has been affected with hemiplegia. One morning, as he was about to rise, he suddenly found himself entirely paralysed on the left side, without having experienced any premonitory symptoms. A total loss of both sensation and motion on that side of the body was for some time the only symptom observed. This, gentlemen, as you are well aware, is one of the ordinary manifestations of cerebral hæmorrhage; but things do not generally remain long in that state. No doubt, if the apoplectic clot is too large to undergo the ordinary process of resorption; if, although small, it acts on the brain as an irritating foreign body; or if the cerebral cicatrix is of considerable extent, no improvement will occur in the patient's condition. But if, on the contrary, the clot is absorbed in the usual manner, the paralysed limbs gradually resume their former activity. Much, of course, might be said on the process by which these injuries are healed; but I do not wish at present to examine this point—we have to deal with another part of the subject.

The primary symptoms of the disease, far from disappearing altogether, or even remaining stationary, are not unfrequently aggravated by the unwelcome appearance of an entirely different class of phenomena. I allude to the violent pains and muscular rigidity which often invade the palsied limbs. Such has precisely been the case with our patient. How are we to explain this singular change?

It would formerly have been supposed that inflammation had arisen in the immediate vicinity of the clot, or that the encephalic membranes were affected. These views are fully developed in Dr. Todd's clinical lectures, to which I must refer those of you who wish to investigate the historical part of the subject.

But the clinical observer can easily ascertain that neither inflammation nor softening of the brain exists in the present case. The general phenomena which invariably coincide in such cases with the morbid process are wanting here. We meet with no fever, no acceleration of the pulse, no loss of appetite, no vomiting, no coma—in fact, none of those symptoms which would justify us in asserting the existence of similar alterations.

The brain, therefore, has nothing to do with the pains and rigidity exhibited by our patient. Are we to suppose that the spinal cord is affected? There undoubtedly exist, in old cases of cerebral hæmorrhage, certain alterations of the medulla spinalis, which, after having been discovered by Professor Cruveilhier, have in later times been more accurately described by Drs. Charcot and Vulpian. They chiefly consist in a sort of descending atrophy, which results from partial disorganisation of the brain; the centre having ceased to act, the corresponding portions of the spinal cord are deprived of their natural stimulus, and after a certain lapse of time undergo important changes. I will at some future period enter more fully into this part of the question. For the present it will suffice to say that, in such cases, inertia and flaccidity predominate in the palsied limbs, while the leading features in our patient's case are intermittent pains and spasmodic contractions. We therefore have to deal with a very different form of the disease.

Dr. Todd, in his clinical lectures, has already touched upon this point. He accurately describes the peculiar condition of the muscles, which in such cases are simultaneously atrophied and contracted; he has even guessed at the corresponding alterations of the nerves, without, however, ascertaining the truth by direct examination. He states that when the muscles are both rigid and retracted the power of motion is preserved in a certain degree, and that reflex actions are considerably increased.

Dr. Charcot and his pupil, Dr. Cornil, have thoroughly elucidated the difficulty. The results of their investigations are laid down in a paper read before the Biological Society in 1863.

The muscular rigidity of hemiplegia affects various forms. In certain cases, the limbs are entirely contracted; the arm is pressed against the wall of the chest; the fingers are bent inwards, the nails leaving their mark in the palm of the hand; and the leg is half-bent: while in others the limbs remain flaccid, the fingers and toes being alone contracted. This is precisely what occurs in our patient. It may even be said that in his case rigidity is just commencing, for the muscular contraction is intermittent and incomplete.

We have now to inquire what the anatomical alteration is which corresponds to this series of phenomena.

Both muscles and nerves have been carefully examined. The muscular tissue is partially atrophied. It is of a dirty yellow or brown colour; it has become soft, and its natural elasticity has greatly diminished. There exists, therefore, an important change in its nutrition; but this is the consequence, not the cause, of the disease.

But the state of the nerves has principally attracted the attention of Drs. Charcot and Cornil. Their size has visibly increased; they are often twice as large as the corresponding nervous trunks on the opposite side. At the same time their toughness and density is much greater than usual. Their colour is reddish, and their surface exhibits a fine network of capillary vessels. Lastly, when the neurilemma is examined, it is found to have grown very thick, and to adhere strongly to the subjacent nervous fibres. The partitions which separate the bundles of nervous filaments are equally grown very thick, and the nuclei of the sarcolemma have considerably increased in number.

On the other hand, the bundles of nervous filaments have grown thinner than usual; but although disseminated in a mass of connective tissue, which compresses them, they retain their normal characteristics, and remain free from granular degeneration.

It is therefore evident that, in cases of painful muscular rigidity supervening *after* the restoration of sensibility in the paralysed limbs, the nerves are swollen, if we may use the expression, by the undue thickening of their sheaths, while the nervous tubes remain perfectly sound, and, therefore, capable of receiving sensorial impressions, and of exciting motion.

If in the circle of morbid anatomy we look for a parallel, we shall find it in cirrhosis of the liver. The progressive hypertrophy of the connective tissue compresses and separates the nervous tubes in the first case, while it dissociates and strangles the glandular elements in the second. No doubt these alterations are carried to a higher degree in the liver than in the nervous trunks; but we must bear in mind that the causes which lead to hepatic disease—*e.g.*, chronic intoxication—are generally constant and uninterrupted in their action, while in hemiplegia, whether connected with hæmorrhage or with softening of the brain, the blow, once struck, is not immediately renewed, and the consecutive alteration of the peripheral nerves remains circumscribed within much narrower limits.

Such, gentlemen, are the facts of the case. It now remains for us to inquire how the sensation of pain is produced at a moment when the brain does not seem to be capable of perceiving sensorial impressions. Without entering here into a physiological discussion, we will remind you that in general, at that stage of the disease, sensibility has been restored to the affected parts, although the power of motion still remains abolished. It is therefore easy to understand that pain may be felt, though motion is impossible.

As to the muscular rigidity, it is no doubt principally connected with the local pressure exerted upon the nervous filaments, which, still retaining their vital power, are excited by the application of this permanent stimulus.

As regards the state of our patient, the disease is evidently not in an advanced stage. But these incomplete cases, as they may be called, are highly interesting in a scientific point of view, showing as they do the intermediary period through which the disease has to pass before attaining its full development.

I will now, gentlemen, place before you a preparation which

(a) Vide *Medical Times and Gazette*, Nov. 16, 1867.

exhibits the alterations I have been describing. A transverse section of a sound nerve is here placed by the side of a similar preparation in a diseased one, taken from a subject affected with hemiplegia. Both have been treated by a solution of carmine in ammonia. A deep red colour shows the place occupied by the nervous tubes, while the connective tissue which separates them remains white. You see that in the sound nerve the bundles of filaments are merely separated by these white streaks, while in the diseased one the neurilemma is exceedingly thick, as well as the internal partitions which separate the fascicles from each other; and yet the nervous tubes, placed under the microscope, are found to be in a perfectly healthy state. The alteration therefore consists in an undue hypertrophy of the connective tissue, and may be viewed as *cirrhosis of the nerves*.

I am happy, gentlemen, to place these remarkable alterations under your eyes. It has always been my desire to show you the superiority of positive scientific data, when compared with those dreamy conceptions, which formerly prevailed among Medical men. Such, gentlemen, is the fundamental difference between the principles of our times, and the antiquated notions which some of our contemporaries have attempted to bring once more into favour.

ORIGINAL COMMUNICATIONS.

REMARKS ON THE

DISORDERLY MOVEMENTS OF CHOREA AND CONVULSION.

By J. HUGHLINGS JACKSON, M.D.,
Physician to the Hospital for the Epileptic and Paralysed, and Assistant-Physician to the London Hospital.

THERE is among my out-patients at the London Hospital a girl, 8 years of age, who, over a period of six weeks, has been liable to paroxysms of violent excitement, each attack being of about half an hour or an hour's duration. One whole day she was silly rather than violent. When the attack is on, she "raves," "hallooes," swears, strikes, and has once bitten her own arm. There is a loud mitral murmur.

To call these paroxysms "epileptic" is useful so far as the nomenclature serves to put the case on a wider basis for investigation. Indeed, four years ago the girl had, from the description given of them, convulsions which would be usually called epileptic; therefore, it may be plausibly inferred that there has been a condition in, or in parts near to, the motor tract to give rise to the convulsions similar to the condition which must now exist in the hemisphere to allow the occasional disorder of mind. Before the convulsions occurred the child had had rheumatic fever, and it is most likely that her heart was damaged then. If so, it is quite clear that there was, both for the convulsions and for the maniacal paroxysms, a condition under which embolism may occur, and if this child had become suddenly hemiplegic no one would doubt but that a plug in one middle cerebral artery, or some large branch of it, was the cause of her palsy. Small branches may be blocked as well as large ones, and now and then the arteria centralis retinæ is plugged in cases of heart disease. No one *knows* what is the nature of the lesion in such cases as that of which the girl's is an instance, and yet there are plenty of speculations. My own speculation is that convulsions, chorea, and mania occur frequently from embolism. (See *London Hospital Reports*, vol. i. 1864,; *Lancet*, November 26, 1864; *Medical Times and Gazette*, January 28, 1865.) The method I suggest is to study all the nervous symptoms which occur *with*, if not from, either heart disease or the parturient state. The commonly recognised nervous symptoms occurring under circumstances favouring plugging of vessels are uniocular amaurosis, hemiplegia, loss of speech, chorea, convulsions, mania. I wish, however, just now to consider the class of symptoms of which this child's symptoms are an instance, more generally, partly in order to anticipate certain preliminary objections to the view just advanced. It may be asked how do *occasional* and *temporary mental* symptoms result from *permanent* local damage to the hemisphere—such as impaired nutrition from mechanical interference with blood-supply will determine? It need scarcely be said that what follows applies to equivocal local deterioration of nerve-tissue from other causes—*e.g.* the softening proceeding from coarse disease in the hemisphere.

Whilst the question must be thought of very generally, the points raised may be best stated with reference to a particular part of the nervous system about which we know more than we do of the cerebral hemisphere. We take the corpus striatum and its region. The corpus striatum is a nervous organ which stands as a governing link betwixt the cerebral hemisphere and a particular muscular region of one side of the body, and thus the signs of its functional disorders—gross movements—may be more easily read than the signs of the functional disturbances of the hemisphere. Three disorders of the muscles this organ governs are, I suppose, palsy, irregular movements, and spasm. But the word function has a threefold meaning when used in speaking of the healthy nervous system. (1) It is the function of nervous matter to store up force for *future* expenditure. (2) It is the function of nerve units, in expending their stored up-force, to develope *certain orderly* and more or less complex movements. (3) It is the function of nervous matter forming the nerve units of particular organs to expend the stored-up force in developing certain more or less complex movements *in correspondence* with special—not always constant—excitations, which bring the local movements into harmony with the whole organism.(a)

In cases of palsy, complete or incomplete, there is a defect of the first. In absolute palsy (1) no force is stored up, (2) therefore the muscles are not *governed at all*, not even wrongly (3) at the provocation of *any sort* of excitation. In incomplete palsy these duties are all done, but they are all badly done. Here a quantity of nerve-tissue is altogether *destroyed*, and thus a *quantity* of general weakness is produced. Now, whilst in irregular movements and spasm there is at least often some weakness of the muscles affected, there is something more. But we must now speak of the part which is supposed to be the one affected in hemiplegia, hemichorea, and hemispasm.

There is no doubt that *destruction* of a large quantity of the corpus striatum produces loss of power in the face, arm, and leg; but it is by no means clear that instability of the nerve-tissue of this organ allows irregular movements and occasional spasm of the same muscular region. But it seems quite clear that the (vascular) *region*, of which this organ forms part, is the region faulty, not only in hemiplegia, but in hemichorea. The same muscles are affected in each, although they are differently affected.(b) Thus with unilateral irregular movements there is nearly always some unilateral palsy, and occasionally they are lost in nearly complete hemiplegia, like that which destruction of great part of the corpus striatum or optic thalamus brings about.

It is equally clear to my mind that in certain cases of unilateral spasm the muscles first and most convulsed are those paralysed in complete hemiplegia from disease of the corpus striatum.(c) It is true that I have had few opportunities of watching people convulsed, but the cases I have seen bear out the view that unilateral convulsion is the analogue of the common form of hemiplegia. Yet in some, probably in most, severe seizures, in which the spasm begins on one side, the opposite side is convulsed too, sometimes after the side first affected is still. But the facts that the fit begins in the same side, that this side is chiefly affected, that hemiplegia frequently follows or precedes such convulsions, and, indeed, when coarse disease is discovered, the fact that it is found in one—the opposite—cerebral hemisphere, and often in the vascular region of the corpus striatum—these facts, I say, point

(a) The separation I have made in (1) time, (2) movement, and (3) relations of local movement and local time to the succession of bodily movements and mean time is, of course, an artificial separation. Spencer points out ("Principles of Psychology," p. 412) that the growth of a correspondence betwixt the organism and its environment necessarily involves a gradual extension of the correspondence in space (p. 414-5); that an extension of the correspondence in time begins simultaneously with its extension in space, since motion involves both time and space; and that the progress of correspondence in time, in space, in speciality, in generality, and in complexity have not only been going on simultaneously, but have severally rendered each other possible.

(b) I am aware that lesions have been found in the spinal cord in cases of chorea; but as cutting the spinal cord across would not produce affection of the face of any sort I do not see how unilateral chorea can depend on lesions in the spinal cord. Fright is spoken of as a *cause* of chorea, and no doubt it often provokes it; but fright cannot cause chorea of one side of the body—a limitation which often happens, although not always.

(c) See *Medical Times and Gazette*, April 28, 1866, page 443. There I speak of the fact that the trunk muscles are involved in the spasm too, although these muscles escape in hemiplegia. But, as I there state, Dr. Broadbent's hypothesis (*Medico-Chirurgical Review*, April, 1866) of unilateral and bilateral movements accounts in a most satisfactory manner for the discrepancy. Obviously the same applies to chorea. The symptoms observed in cases of double hemiplegia appear to me to confirm Dr. Broadbent's views.

strongly to the conclusion that this region is the part to blame in unilateral spasm, as well as in unilateral palsy.

Besides, apart from more striking cases, we see young patients who have unilateral palsy, and yet movements of the partially paralysed muscles, which are nearly continuous, but are increased by excitement. These movements stand betwixt the movements of chorea and those of epilepsy. Again, in cases of hemiplegia after a convulsion, beginning unilaterally, from disease of the hemisphere, a patient during recovery will have frequent, nearly *continuous* irregular movements, and *occasional* twitches of the hand, as well as *permanent* weakness of the limb. There are, however, I fully admit, grave difficulties. Dr. A. Robertson has published a case of abscess in one cerebral hemisphere, in which there had been convulsions, which were not according to what I believe to be the rule.

In complete hemiplegia there is no disorder of function, as there is no function at all: nerve-tissue is *destroyed*. But in hemichorea and hemispasm there must be some kind of nerve-tissue, or there would not result even the *disorder* of function. It is equally clear that nerve-tissue must be faulty, or this disorder could not result. 1. The ill-nourished nerve-tissue is more unstable, over-ready, "excitable;" there is discharge too soon; its Time is shortened. 2. The movement resulting from the ill-timed discharge is a disorderly movement—an unintelligent action. 3. The ill-timed disorderly movement is not the result of a proper "motive,"(d) but will follow an excitation of a less special or of a more general kind.

To show in what two different ways the two differing phenomena, irregular movements and spasm, result from disease in one region is a difficulty.

First, it must be observed that the irregular movements of the arm in cases of hemichorea are not mere jerks and spasms —not incoherence of muscles, but incoherence of more complex and more specialised muscular movements. In some cases of chorea we have disorder of movements of very great complexity, involving the whole body. Now, on the hemispherical side of the corpus striatum, there are undoubtedly arrangements for the rudimentary mental (or highly developed physical) movements which constitute the phenomena(e) of speech, and it is not unreasonable to infer that there are other arrangements of other elements which the corpus striatum furnishes for the higher movements of the limb — those which are brought in continuity with the complex "motives" in the hemisphere. It may, then, be supposed that one difference betwixt unilateral irregular movements and unilateral spasm is, that the former results from an instability of nervous matter, composing nerve units of a higher degree of complexity. Again: In convulsion, the *whole* of the muscles are contending *at once*, the stronger determining the direction. In chorea, movements of muscles follow in rapid succession. But how the two come to differ in time—the "explosions" in one being in continuous succession, and in the other abrupt and occasional—is not accounted for except by supposing that the correspondence with external co-existences increases with the increased correspondence with external sequences. (See first foot-note.)

(To be continued.)

THE NAVAL HOSPITAL, PLYMOUTH.—The *Western Daily Mercury* announces that the retirement of Dr. Stewart, of the Royal Naval Hospital, Plymouth, which was recently announced by the *Army and Navy Gazette*, has been countermanded by the Board of Admiralty.

THE VALUE OF MEDICAL SERVICES.—It is stated in the *Uxbridge Times* that two Medical gentlemen have recently been appointed to the Uxbridge Union—one, Mr. Vipen, to the Hillingdon district at a salary of £30 a year, or 1s. 7¾d. a day; the other, Mr. King, to the Uxbridge and Ickenham district at a salary of £35 a year, or 1s. 11d. a day; both gentlemen having to find their own medicines. The pay of the Hillingdon and Ickenham postman is 2s. a day, and he has nothing to find.

(d) Each movement is conceived to have its proper motive. This is seen in its least complex form—the lowest types of reflex action. A simple sensation provokes a simple movement. The motive is in its highest manifestations when a movement, objective or subjective, follows on the excitation of that varying and complex state which is called the "will." (See Spencer on "The Will," *op. cit.*)

(e) Broca says that aphemia may be looked on as a loss of a mental faculty, or as a disorder of motion. Morel says the *primary* condition of language is a *reflex action* following necessarily on some mental state.

ON THE RECENT OUTBREAK OF PERNICIOUS FEVER IN MAURITIUS.(a)

By Dr. C. F. EDWARDS,
General Sanitary Inspector of the Island.

THE Island of Mauritius had formerly the reputation of being one of the healthiest of the British colonies within the tropics. Its character has sadly changed. For several years past fever and dysentery have prevailed extensively amongst the Indian population, and the annual rate of mortality has steadily increased until it has attained an average of 37 per thousand in the rural districts, and 48 in the town of Port Louis.

The prevailing fever, a low form of bilious remittent, is supposed by Mauritians to have been introduced by immigrants from Bombay, and is hence called "Bombay fever." There is little doubt, however, that the disease is of local origin, and results from the bad sanitary condition in which the Indians live. This fever sometimes assumes a typhoid and contagious form, and proves rapidly fatal; but usually it is protracted in its course, often complicated with diarrhœa or dysentery, and attended with abdominal congestion, particularly of the spleen, which is almost invariably implicated, thus indicating the malarious character of the disease.

Whether this or any other Mauritian fever ever assumed a distinctly intermittent character prior to 1866-7 is a question yet to be determined. There is certainly no record in the annals of the colony of any epidemic analogous to that which has lately, in the course of nine months, more than decimated the population of the island. Mauritius has suffered much from several fatal visitations of epidemic cholera, and cholera was the only disease the people dreaded. Although repeatedly warned that fever was becoming far more formidable than cholera, they satisfied themselves with passing the most stringent quarantine laws, and turned a deaf ear to the advice and suggestions of those who advocated sanitary measures as the most effectual means of preventing the spread of either disease. Before attempting a description of the late epidemic, I will give a brief sketch of the previous sanitary condition of the island, and of certain occurrences which preceded the outbreak, and seem to throw some light on the subject.

At the commencement of the present year Mauritius contained in round numbers about 340,000 inhabitants, 240,000 of which were Indians, the remainder consisting of Europeans, creoles, and Chinese. About a hundred thousand of the Indians are engaged to work on the sugar estates; the rest are entirely free. The sanitary condition of both classes is equally unsatisfactory. The camps are all badly constructed, and many are quite unfit for habitation, the huts being small, dark, frequently roofed with iron or tin, ill ventilated, and badly drained.

The water supply is precarious and often inadequate. Wells have been sunk on some estates and good water obtained; but, as a general rule, the camps are dependent on the nearest river or canal, the water of which is more or less polluted by the Indians themselves, who resort there for the purpose of bathing and washing their clothes. Many of the streams are also defiled by drainage from the camps and the residues from sugar houses and distilleries. It is believed that many diseases to which the Indians are subject, especially diarrhœa and dysentery, may be traced to the drinking of impure water.

The reckless destruction of timber in some parts of the island, although it may not perhaps have lessened the total amount of rainfall, has probably had the effect of diverting the showers, and has certainly tended to diminish the volume of water in many of the rivers. Some which formerly contained a good body of water all the year round are now nearly dried up in certain seasons, or consist of a chain of muddy pools.

The unrestricted liberty which the Indians enjoy after completing their engagements with the planters is a great and growing evil. The whole face of the country is disfigured by their miserable camps, every one of which, from its dirty and overcrowded condition, is calculated in epidemic seasons to become a focus of disease. Large numbers of this class also herd together, like so many pigs in a sty, in buildings of the most wretched description, in the very heart of the principal town, Port Louis, and also add to its unhealthiness. As Port Louis possesses no system of drainage worthy of the name, a good deal of the refuse of the streets, and a considerable portion of the sewage of the town, finds its way into the several water-

(a) Read before the Epidemiological Society, December 2, 1867.

courses which traverse the town, and, as all of these streams are more or less sluggish, much of it is retained. The water-supply is tolerably good as to quantity, but its distribution is partial. It is brought from a considerable distance by means of canals, but not from very pure sources. One of these canals is constructed of iron, and by the time it reaches the town its water has parted with a good deal of its impurity, and has become tolerably good; but the other two are built of masonry, and their waters, instead of improving, deteriorate as they approach the town, and contain a large amount of organic impurity.

The town contains many other sources of insalubrity. I may mention a large lagoon called the Mer Rouge, situate close to, and connected with, the harbour of Port Louis. Twenty years ago this lagoon was navigable for lighters and other small craft. It is now fast filling in, an extensive surface of mud being exposed at low water, which at times gives off pestilential miasmata. Two of the most polluted of the streams discharge into this lagoon. It may also be mentioned that the railway works, especially those in the neighbourhood of the central station, have tended to increase the unwholesomeness of that part of the town. The execution of these works involved the cutting of a canal for the diversion of one of the rivers from its natural channel. This canal is of considerable length, and almost on a dead level. The soil through which it was cut is of an alluvial character, as is likewise that on which the principal buildings stand. The turning up of such a soil, and the obstruction caused by these works to the free exit of the waters of a polluted river, and their exposure in a stagnant condition to the influence of a tropical sun, could have but one result, and it is not surprising that this was one of the worst affected localities during the epidemic.

In the month of February, 1865, the island was visited by a tremendous fall of rain, which completely inundated the town, effectually stirring up the rivers, brooks, and other reservoirs of filth. As the flood subsided large accumulations of mud mixed with decayed vegetable and animal matter were deposited in the streets, on the banks and at the mouths of the rivers, and in the ground floors and cellars of many houses in the lower parts of the town. An offensive odour prevailed, and an outbreak of fever was predicted, but strenuous efforts were made by the municipal authorities to cleanse and purify the town, and although several cases of fever did occur, they were not of a very fatal character, and the immediate effects of the inundation were not serious. There was also an unusual amount of fever in the adjoining district of Black River, which had also suffered from the effects of the flood, and it was in this district that the epidemic first declared itself, although not until the following year. The immediately exciting cause appeared to be the cleansing out of a lagoon early in January, 1866. This lagoon is situate in the sub-district of Petite Rivière, about six miles to the west of Port Louis. Some of the labourers employed in the operation were attacked by fever, and the work was discontinued, but not until large quantities of dark fœtid mud had been thrown up on the banks of the lagoon, where it lay exposed to the sun during five months of an unusually hot and dry summer. It was not until the following July that the mud was carried away to the cane fields for manure. The camp of the "Albion" estate is within half a mile of the lagoon, and that of the adjoining estate "Gros Cailloux," about two miles. Both these estates had been previously healthy, but in the month of February there were upwards of 200 cases of fever in the two camps, many of which proved fatal. This epidemic lasted until June, when the cool weather set in. The earliest cases of fever during this outbreak were of the ordinary type, not distinguishable from common Bombay fever; but subsequently several cases of well-marked intermittent occurred, and these were, to the best of my knowledge and belief, the earliest cases of that form of fever recorded. The disease smouldered during the winter months, but only to break out with increased virulence as soon as the hot weather set in again. The increase of mortality in the district of Black River in the month of January, as compared with that of the corresponding month of the previous year, was greater in proportion than that of any other district of the island. From Petite Rivière, as a centre, the epidemic spread east and west to all the leeward districts of the island, to which it was strictly confined. The malarious poison appeared to be conveyed by the wind, for it was observed that according to its direction so did the number of cases increase or diminish. It seemed to be arrested by the chain of mountains which divides the island, and did not reach beyond a certain elevation. The epidemic attacked all classes of the community, but the greatest mortality occurred amongst the poor and destitute. There is a large creole and free Indian population, who live on the verge of pauperism. They are notoriously an improvident race, and when overtaken by sickness they fall into great distress, as there is no properly organised system, Medical or material, for the relief of the poor. The unusually high price of provisions, especially of rice, the staple food of the people, combined with a scarcity of labour, had tended to impoverish them; and hundreds, perhaps thousands, of this class fell easy victims to a disease which, although not essentially fatal in its character, was so rapidly prostrating in its effects. An immense proportion of deaths, in fact, resulted from want not only of Medical assistance, but of the common necessaries of life. The character and symptoms of the disease varied considerably: from simple uncomplicated intermittent to the severest forms of congestive fever. The great majority of cases resembled common ague, the quotidian and tertian forms predominating, although some individuals had weekly, others fortnightly, attacks. Such cases, if taken in time, were perfectly manageable, a single dose of quinine being often sufficient to arrest the progress of the disease; but relapses were very common, and quinine was scarce. If neglected, these cases frequently ran into the remittent or continued forms, with local complications, such as congestion of the liver and spleen, followed by dropsical effusions and fatal results. Not only did cases of intermittent occasionally degenerate into other and more serious forms of fever, but cases of remittent and continued fever were often followed, after recovery from the first attack, by ague fits perfectly well marked in all their stages. As the epidemic declined dysentery became very common, causing a large proportion of the deaths which occurred after the month of June. The symptoms of this remarkable disease were, indeed, so varied as almost to defy description, but all pointed unmistakably to its malarious character.

The localities most fatally affected were those in which the sanitary conditions were the worst. In overcrowded camps and houses whole families were swept off with astonishing rapidity. A deficient water supply was a great aggravation in some places. In two suburban districts notoriously badly supplied, not a family, scarcely an individual, escaped; relapses occurred over and over again, and many of those who recovered from the primary attacks afterwards suffered from dysentery which proved very fatal. The neighbourhood of a marsh in either of the affected districts was observed to furnish a large proportion of fatal cases. It did not appear that marsh miasmata were alone sufficient to generate fever, for most of the marsh land in Mauritius is situate in those districts which escaped the epidemic, but they seemed to foster and intensify the poison pervading the atmosphere. The question of the contagiousness of the disease was strongly debated before I left the colony, and much conflicting evidence was brought to bear on the subject. The balance of facts, however, appeared to be in favour of those who regarded it as a communicable disease in some of its forms.

The epidemic lasted from January to October, by which time it had died out. It reached its culminating point in April, in which month upwards of 10,000 deaths were registered. The total deaths in the nine months were 38,200, being 11 per cent. of the total population of the island and 16 per cent. of the population of the affected districts. The town of Port Louis suffered to the extent of 26 per cent. of its inhabitants. It is a singular fact that the mortality of the three districts which escaped was absolutely less during this period than the average of former years. From the facts stated, it is submitted that the following deductions may reasonably be drawn:—

First, that the disease was of malarious origin.

Secondly, that the inundation of 1865, followed by two seasons of unusual heat and long-continued drought, were predisposing causes.

Thirdly, that the malarious poison was fostered and intensified in certain localities by their bad sanitary conditions.

Fourthly, that the cleaning out of the lagoon at Petite Rivière was, at any rate, one of the exciting causes.

Fifthly, that the strong resemblance between some forms of this epidemic and the disease commonly called Bombay fever, both in symptoms during life and the appearances after death, leads to the inference that they were modifications of the same disease, the peculiar character of the epidemic having been determined by exceptional atmospheric and telluric conditions.

OBSERVATIONS ON A NEW METHOD OF ILLUSTRATING DISEASES BY PHYSIOGNOMIC PORTRAITS.

By GEORGE CORFE, M.D., M.R.C.P. Lond.

No. VIII.—(*Conclusion.*)

Abdominal Diseases.

An old pupil of Sir Charles Bell's forwarded to him an account of a native of South America who had received a wound on the left side from which the spleen escaped, and becoming gangrenous, this gentleman cut it off, but no immediate effect resulted from the extirpation, But in some of the instances in which animals have been allowed to survive longest after removal of the spleen, the lymphatic glands of the neighbourhood have been greatly enlarged and clustered together so as nearly to equal the original spleen in volume ; and hence it appears to be a fair inference, that the elaborating function of the spleen corresponds closely to that of the lymphatic glands.

The cœliac trunk supplies stomach, duodenum, liver, pancreas, and spleen. They are all placed in juxtaposition, united by the same mesh of nerves, and are doubtless all mutual in function ; hence our best physiologists concur in regarding the spleen as a *point d'appui* for blood to be elaborated and poured out fitted for digestion. Bell, and more recently Kölliker, taught this doctrine, which is far more sober than Haller's aphorism—"Risus in liene sedes videtur ex effectu titilationis nataque in plurimis mortalibus risum excitat." The grave objection to which is that tickling the right side will answer just as well as the left.

The intimate connexion that appears to exist between positive diseases of the spleen, "ague cake," for instance, and secondary derangement of the liver affords strong presumptive evidence that the venous blood of the former is useful in the function of the latter. There is probably some peculiar change wrought by which it is fitted to the hepatic economy.

Pathology has often been a better instructor of its kindred science, physiology, than the most accurate anatomical description of an organ or nerve could afford us. Thus, after the scientific world had received and acknowledged the accuracy of Bell's views of the respiratory system, had also discarded the erroneous doctrine that facial paralysis of the seventh nerve was invariably connected with endo-cranial mischief, but accepted, on the other hand, this physiologist's views of the disease—viz. that it was a local, and therefore exo-cranial, derangement of the neurilemma—students were led to study with deep interest the various points connected with the new views propounded by Bell. Memory recalls vividly to our mind how patients afflicted with facial palsy were visited by eminent physiologists, anatomists, and pupils, the scrutiny with which they scanned the surface by feather, pin, or finger to assure themselves of the absence of anæsthesia. Then, again, how they encouraged the patient to imitate on the diseased side their curl of the lip, smile, pout, or their frown, and the involuntary laughter that followed such grotesque exhibitions is as familiar to us all now as "household words." In short, proof was soon afforded by pathological teaching that mastication, grinding the teeth, and deglutition were never impaired in the above disease of the seventh nerve.

Reasoning from the foregoing premises, we may safely study the physiology of the spleen by the light of those pathological changes to which it is subject. The most valuable information has been afforded us on this point lately by Dr. Hughes Bennet's description of the disease he terms leucocythemia, or excess of white over red blood corpuscles, the result of a certain enlargement of the spleen and other glandular bodies belonging to the lymphatic system. The conviction therefore forces itself on the mind that in health venous blood, highly charged with albuminous and chylous elements, wends its way to the spleen, there to be operated upon, so that it may render this raw material fit to become receptacles for iron and hæmatin, and giving them thereby power to officiate as good oxygen carriers or carbon expellers. In failing to effect this object in the economy, through disease or extirpation, we find, as already stated, other lymphatic glands much enlarged and doing that work in lieu of the spleen. The portrait now before our readers represents one of the severest forms of suffering from ague or diseased spleen that have occurred in the whole of one's professional career. The woman came from Boston, Lincolnshire. About the same period a suburban policeman was under treatment for the sequelæ of tertian ague. The latter had been subdued, but on resuming his "beats" he became weakened by hæmorrhagic diarrhœa. He sought relief for this attack. The spleen was felt, and seen also, much enlarged. He had frequent epistaxis, and on the day of his admission the bleeding was so profuse that plugging the posterior nares only arrested it after all other means had failed. His physiognomy was that of a case of severe chlorosis. With a generous diet, wine, porter, and nitrohydrochloric acid in sarsaparilla, he soon fattened and became ruddy. In making the usual morning visit on one occasion, we found him almost pulseless, and *in articulo mortis*, by efforts he had just made to vomit and defecate. An enormous mass of semi-clotted blood was in the ward commode, and a smaller quantity of a similar character was on the floor. He shortly rallied ; the tumour had disappeared, and from that period he slowly and steadily improved, till he was discharged convalescent. In our present portrait special notice should be taken of that expressive information here afforded us of the intimate communications of the abdominal viscera with the nerve commanding the features of the face through the medium of the great sympathetic. A pinched expression, such as this woman exhibits, could not belong to cerebral disease; neither could any suffering conveyed through the pneumogastric command such a telling physiognomy as that now before the reader. The corrugations of the brows and eyelids, the perpendicular furrow formed thereby from the base of the nose up the forehead, the retraction of the cheeks, dragged and elongated nostrils, the half-opened mouth, with its depressed angles, the teeth clenched, and chin thrown forwards, announce, in characteristic language, the cavity where disease is spending its virulence, and racking the sufferer with its destroying fangs. The languid eye, and absence of that flash of alarm and anxiety so peculiar to acute seizures within the abdomen, stamp the case as one of slow, but fatal, disease of some vital organ within that cavity.

Charlotte F. was 45 years of age, pale and emaciated ; abdomen large, tense, and full of fluid ; tongue red, glazed, and chapped ; frequent diarrhœa ; pulse feeble ; urine scanty and high-coloured, containing bile in small quantities, by the usual tests ; slight œdema of the legs. Has vomited and purged large quantities of blood at intervals of six or eight months. The ascites is recent. The spleen and liver occupied the whole of the abdominal cavity as low as the under surface of the umbilicus, reaching up as high as the fifth rib. Temporary relief was afforded by tapping, but the vital powers soon flagged, and she died a month after admission. Well-marked cirrhosis with atrophy of the liver was found, together with albuminoid deposits through the whole spleen. Its capsule was much thickened, and between it and the substance of the

viscus was a deposition of a fibrinoid character, analogous to the colourless clots met with in the heart after pyæmia and other blood-destroyers. The splenic cells were obliterated by the deposits, and the whole organ was hard, firm, resembling a large kidney in shape, as well as in touch.

As a set-off to the case now under review, the following instance of obscure disease simulating aneurism over the spleen may be here given; its unusual character, brief duration whilst in Hospital, and the suspicion which gave credence to its seat being in the spleen, are worthy our attention.

The elder members of the Profession may be here reminded of the extreme prevalence of fatal pyæmia after the cholera epidemic—a period when this case came under notice.

A servant girl, aged 22, was admitted June 2 in the following condition:—Countenance very pale; respirations shallow (36), thoracic; great pain and anxiety depicted in the features; pulse 100, small; tongue with white patches along its margins, moist. Complains of pain at the epigastrium, where there is a distinct, circumscribed, deeply situated pulsating tumour the size of an orange. Bowels are open; nothing unnatural in the evacuations. Copious night sweats; nausea; catamenia absent eight months; feeble respiration over the left lung. The girl stated that ten days ago she was seized with acute pain in the right side and epigastrium, with pain in the left shoulder. Twenty-four hours after admission, intense pain came on at 3 a.m. under the left breast. Respirations rose to 42, and were rather abdominal than thoracic, though the latter character was more than is usual in acute inflammations in this cavity. Pulse 140, very feeble; perfect dulness over the whole left lung; intense orthopnœa, great restlessness, and increased anxiety of countenance; profuse sweats. She rapidly sank and died on the evening of the same day (June 3).

On opening the thorax, the left side was nearly filled with whey-like fluid—two quarts; the lung compressed, soft flakes adhered feebly to the costal pleura; there was no firm lymph or the slightest adhesion, except at the lower lobe, where the whole inferior surface of the lung was firmly attached to the thoracic surface of the diaphragm. The pericardium contained three ounces of thick serum, with a few flocculi. Opposite that portion of membrane adjacent to the lung a faint adhesion had formed with the heart. The membrane was vascular here. Heart healthy, though the left endocardium tore off much easier than the right. As the lung was separated from its adhesion a gush of bland, thick, cream-like pus followed. The muscle was destroyed for the space of an ordinary saucer, and exposed a large cavity in the left lobe of the liver, the structure of which was entirely gone, and would have contained a small cocoanut. Some peritoneal lymph was effused between the abscess and the arch of the colon. No hydatids were discovered. All the organs were quite healthy.

This was undoubtedly an instance of toxæmia from suspended uterine functions and acute phlebitis, spending its virulence in the fatal attack within the liver.

During the many busy years passed within the walls of a large Hospital, it has often been a source of regret that one neither possessed the art nor the aid of a painter, so as to transmit to canvas pictorial representations of the various acute attacks there met with, but the interest of which faded away, either into convalescence or death, in a few hours, as in the last instance, ere any clinical instruction on the main features of the case could be imparted to the students. It has left a conviction on the mind, deepened year after year by fresh experience amongst all classes of society, that congenital or induced peculiarities and structural changes of organs within the three great cavities of the body may be exhibited by the artist and recognised, physiognomically, with an exactness which it is difficult to define, though easy to attain.

Language, whether oral or written, is defective to describe expression in features, in colour, in attitude, in the timbre of the voice, or in the character of acough, etc.; whereas delineations of structural derangement revive, in those who are familiar with various diseases, the memory of many whose forms had left their characteristic stamp on the mind. Witness, for example, the value and fidelity of the portraits of the insane executed by Dr. Diamond for Dr. Conolly's excellent lectures, and we have an evidence of the utility of this field of science in demonstrating disease.(a)

In bringing these papers to a conclusion, it may be observed that their chief aim has been to elucidate Medical physiognomy on the unerring ground of "The Anatomy of Expression," and thereby to attempt to throw such a charm over the bare study of Medical facts as shall tend to awaken a deeper interest in the mind of a student in his pursuit of knowledge within the clinical wards, and captivate him as much as the sister science of Surgery now does. In short, we wish to tutor him to learn a mute but expressive language, set forth by physiognomical signs, which characterise specific diseases in Medicine, just as our eminent Surgical preceptors teach the student to study by sight coxal fracture, from dislocation or from disease, by an everted or inverted foot, poised or not on its fellow; or teach to study by feeling an obscure scrotal swelling, whether it be solid, or fluid, or intestinal; or teach to study by hearing the creak of a "Pott's" fracture from a severe sprained ankle.(b)

The skeleton of those lectures, (c) which, for purity of diction, depth of experience, and soundness in theory, are as yet unequalled in the English language, was made at a period (1831-5) when the eminent writer of them was nominally surrounded by a class of 70 to 100 students, and yet six of them could scarcely be mustered to attend the course or its author in his visits to the wards.

The inaptitude of the mind of the bulk of students to read, mark, and digest by calm reflection, the daily phases of disease portrayed in the face, gait, posture, etc., of patients, is a perpetual source of regret to a painstaking clinical teacher, whilst he finds the area of the operating theatre, and the Surgical work of an accident ward, meet with no lack of admirers. Why is this yearly martyrdom of our best Medical teachers perpetuated? The solution of the question is only to be found in the absence of that training of the mind by a previous sound classical, mathematical, and physical instruction, which shall prepare the student for the contemplation of such abstruse subjects.

Of the multifarious departments of our Profession, Surgery will always be more popular than its kindred, Medicine. There is an uncertainty in the latter rarely met with in the former. Nothing is absolutely sure unless it rests upon the basis of numbers or falls within the sphere of our senses. When these fail or become obscured reasoning must aid us, and where reasoning begins there begins uncertainty also.

Unless the powers of the mind are well drilled by a course of sound scholastic discipline, this field of doubt and uncertainty will be forsaken, and the more enchanting study of Surgery will be selected and pursued. Young men like to be doing something—something that shall be real employment; thus dressing and bandaging present more charms than the quiet and passive engagement of the mind absolutely required in the pursuit of knowledge in the Physician's wards. In the former you see an inflamed eye; the Surgeon at once explains to your view the signs, course, and results of the disease, prescribes for it, and you witness its gradual decline as plainly as you saw its rise and progress. But anon you hear a man has inflammation of the lung; the Physician, not seeing it, is obliged to come to the knowledge of its existence by a great variety of considerations. He prescribes for it, and is compelled to enter again into a variety of considerations ere he can determine the probable course and result of the disease. Hearing, seeing, and feeling are now his most invaluable helpmates, and with them he may often carry his patient on to a successful convalescence without soliciting any words from him beyond a reply to the cheerful question "How are you to-day?"

It may be asked, What would Medicine be without the knowledge of symptoms? and what would symptomatical knowledge avail if it is not read with accuracy by a physiognomical eye? "Woe be to that Physician," exclaims Lavater, "who, without consulting in every particular case his patient's physiognomical sentiment (diathesis), should tie himself down to treat every disease according to its specific class, without once thinking to modify his prescriptions in conformity to the peculiar symptoms which he observes in his patient." The study has been scarcely recognised in any of our large metropolitan schools, and totally neglected in others. In Edinburgh it has lately met with distinguished favour from

(a) Vide *Medical Times and Gazette*—1858-59. Dr. Conolly's Lectures on Insanity.

(b) Should these lines meet the eye of any (now venerable) pupil of that distinguished Professor Sir Charles Bell, he may recall to memory the fascinating and indelible powers which this teacher exercised in his elucidations of Clinical surgery. With a fractured or diseased hip before him, Sir Charles would communicate more valuable information on the posture, anatomy, and treatment of such a case within ten minutes than could have been acquired by any lengthy interrogation of the sufferer, or jejune didactic lecture on the subject.

(c) Sir Thomas Watson. The writer kept a book for the entry of the names of those students who volunteered to attend what was not then a compulsory course of clinical lectures.

Dr. Thomas Laycock, whose original lectures(d) on Physiognomical Diagnosis of Temperaments form a valuable introduction to the subject, and are worthy of an attentive perusal by every member of the Profession.

It is assumed that we may be permitted to speak or write, with some authority and decision, on this much-vexed subject, Medical education, when it is considered that our opinion is based on an experience extending over a period of thirty years, during which the author held the office of teacher in the laboratory and in the wards of a large metropolitan Hospital, where many hundreds of students passed under his surveillance into the wide field of general practice. We can, therefore, fully endorse the judicious remarks of the writer of No. 5 of the "Notes" on this topic in the journal of November 9. Nay, we would urge on the immediate attention of our governing body the paramount importance of a preliminary course of study carried on under tutelary management, ere the country "élève" becomes a provincial or metropolitan "étudiant."

Brought up as the apprentice of a valued country Practitioner, who, with the late Mr. Guthrie, served in the whole Peninsular war and at Waterloo, ere he established himself in private practice, the writer has cause to speak in the highest terms of the much-abused system of apprenticeship. Encouraged by an experienced and conscientious gentleman to note down the hebdomadal events in his surgery during the two first years, he permitted his pupils at the expiration of that period to have free access to a small museum, bones, etc. The fourth and fifth years were devoted to such dissections as we could obtain from the workhouse or Hospital, the wards of the latter being open to us on payment of a small fee. By these means, it is not surprising that we were far "better up" in all subjects, on our arrival in London, than many older students who were on the eve of seeking to obtain their diplomas to practise.

But the writer of the truthful "Notes" referred to asks "how so much timidity (?) on the part of the examining bodies and on the part of the Medical Council, in dealing with the subject of preliminary education, is to be accounted for," adding, "It is quite unaccountable." Not so to our mind. In the first place, the rulers of the Profession, the Medical Council, were inducted to their seats as representatives of the University and conservative M.D.'s, or "pure" Physicians, on the one hand, and of the equally tory collegiate "pure" Surgeon on the other. This oligarchical body conjointly forms the main element of the Council, whilst that valued, though mongrel member of our calling, the old Surgeon-Apothecary, finds but a feeble exponent of his principles in the delegates of that august assembly.

Now nearly all these gentlemen brought to their studies of the healing art a valued stock of classical, mathematical, and general lore, culled from the higher walks of university or collegiate education, by the aid of which their minds were prepared to grapple with the abstruse sciences of Chemistry, Physiology, Pathology, etc.; not so, however, with the apprentice or pupil of our early days. He started into Professional existence at fifteen or sixteen, and too often, alas! unprofitably drudged away four or five valued years in his master's service, and it was not until he found himself at full work in his London classes that he realised with grief and mortification the evil of never having studied Greek, and possessing just sufficient knowledge of Latin to enable him to pick out the meaning of a verbose prescription. When such a neglected mind has heard in the class-room of an "amorphous" or "isomeric" salt, of a "polypetalous corolla," "deciduous sepals," or of a "monochlamydeous" plant, the poor creature has groaned under the appalling discovery that he must either give up his studies or betake himself to his classics if he is to make any way in his Profession. It is for these individuals who are to be brought up to feed the Professional market of general Practitioners that we claim from the Medical Council their deepest consideration, and would earnestly beseech the members of it to insist on an immediate repeal of the flimsy curriculum of preliminary education instituted by them. Especially should we besiege the Executive with pleas that Greek, Elementary Physics, and Biology should form an essential feature of that examination, ere the student sets foot in the wards of his Hospital or takes his seat at a Physiological lecture.

Nottingham-terrace, Regent's-park, N.W.

(d) Published in the *Medical Times and Gazette* during the spring of 1862. One might here ask how it is that the Scotch school have taken the lead in this useful study—witness Bell, Conolly, and this author.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

FALSE ANEURISM OF THE ABDOMINAL AORTA, INVOLVING THE CŒLIAC AXIS.

(Under the care of Dr. GOODFELLOW.)

[Communicated by Dr. MURRAY, Resident-Physician's Assistant.]

OLIVER W., aged 30, a stoneturner, admitted under the care of Dr. Goodfellow December 11, 1867. Nine months previous to his admission, while at his usual occupation, and after getting "overheated" from some rather unusual exertion, he felt chilled, and had a distinct rigor, accompanied by vertigo and a feeling of faintness, numbness in the lower extremities, and pain across the loins. But, with the exception of the pain, these symptoms soon subsided, and he resumed his work, and continued uninterruptedly at his occupation up to about six weeks prior to his admission. He, however, constantly suffered more or less severely from the pain in the back, with dyspeptic symptoms, unusual tendency to constipation, and occasional "cramps in the stomach, aggravated on the approach of wet weather." He had always been as regular in his mode of living as the better class of artisans usually are, seldom indulging to excess in any respect, and had enjoyed good health up to the occurrence of the above-mentioned symptoms.

Six weeks before admission he first noticed a "throbbing" at the pit of the stomach; his dyspeptic symptoms became from that time much aggravated, and were accompanied during the last fortnight with excessive flatulency, and, for four days previous to admission, frequent, or rather daily, vomiting. He stated that his employment "shook him a good deal;" that it was a laborious one, and necessitated the almost constant pressure of a sharp-pointed iron instrument at the epigastrium, the local uneasiness from which was frequently so great as to lead him to seek relief by removing it to one or other of the hypochondriac regions. Beyond this he knows of nothing else which was likely to have caused his illness.

On his admission he was somewhat emaciated, and his expression was anxious, but the skin was cool; the pulse not unusually quick, and there were no febrile symptoms. A uniformly pulsating tumour was felt in the epigastrium, the upper boundary of which was about an inch below the ensiform cartilage, and rather to the left of the mesial line. It was hard, and offered considerable resistance to palpation. A clear tympanitic sound was elicited on percussion; but the percussion stroke, however light, gave rise to pain, nausea, and a sense of constriction round the pharynx. The tumour apparently moved up and down by forced respiration, and to a more limited extent horizontally by lying on either side. A musical systolic bruit was heard at the point of greatest pulsation, which assumed a graver tone above and below this point. On inspiration it disappeared, but on expiration it was intensified. Pain of variable intensity was generally present in the situation of the tumour, and extended along the region of the diaphragm, and also up both sides nearly to the nipple, but was not increased by a deep inspiration. In addition to the general lumbar pain of which he had constantly complained, and which now extended forwards on both sides of the abdomen to within a short distance of the umbilicus, and which was increased by pressure, he suffered from a severe pain in the back of a paroxysmal character, which was always worse at night. There was no pain or tenderness along the spine, sharp percussion along it producing no pain in any spot. He found the greatest relief when lying on his right side with the trunk bent forwards. He also complained much of an occasional severe headache, which seemed to resemble that of hemicrania. There was no engorgement of the superficial veins of the abdomen, no ascites, and no œdema of the lower extremities. The pulse after examination about 80. The heart's dulness and sounds normal, but the impulse unusually strong. Respiratory murmur healthy; tongue moist and coated with a thin greyish fur; almost complete anorexia. He vomited several times daily, usually soon after taking food, and without any previous nausea. Bowels confined; hepatic dulness normal, and distinctly separated from that of the tumour; no jaundice. Urine: Specific gravity 1015, normally acid, turned of a milky white on boiling, but again became perfectly clear on the addition of a few drops of nitric acid.

December 19.—No change, except that the vomiting had become more urgent, so that he was not able to retain more than two or three morsels of food at a time, on exceeding which vomiting was instantly induced.

23rd.—Tumour apparently enlarging towards the right, with increase of pain, preventing sleep. Vomiting still urgent; bowels much confined; pulse 95.

29th.—Violent pain in situation of the right kidney; also a painful feeling like that of cardialgia around the chest, even to the throat. Tumour more prominent and pointed. The systolic murmur is louder and of a "cooing" character. Pulse 112. Urine acid, and no albumen.

30th.—For the first time a distant systolic murmur was audible about three inches and a half to the left side of the spine, and on a level with the eleventh dorsal vertebra.

January 1.—Was much exhausted by the severity of the pains and the almost constant vomiting. Lay constantly on the right side, and the least movement increased the epigastric pain. In the evening he was seized suddenly, about 9 o'clock, with acute pain in the abdomen, the powers rapidly failed, and he died in about twenty minutes.

During his residence in the Hospital laudanum poultices, hot-water compresses, and other sedatives were freely applied to the painful parts, and sedatives were given internally, with mild aperients and laxative enemata. That which gave him the greatest relief, especially from the cardialgia and the vomiting, was the following draught, which generally succeeded not only in relieving the pain, but inducing sleep:—Mag. carb. gr. xv., liq. opii sed. ♏x., mist. camph. ʒss., aquæ ʒj. Nourishment of every kind was freely given, with wine and brandy, both by the mouth and per rectum.

Autopsy made Seventeen Hours after Death by Dr. Cayley, to whom I am indebted for the following account:—Well-marked rigidity; body much emaciated, and surface very pale. Thorax: Lungs and pleura normal, the former, however, very anæmic. There was a small, extremely rough white patch close to the apex of the heart, and a similar but smoother patch on the corresponding part of the parietal pericardium. There was another smooth white patch on the surface of the right ventricle. Valves of heart normal. Abdomen: The peritoneal cavity contained about half a basinful of loose black clot and fluid blood. In the epigastrium, embraced by the smaller curvature of the stomach, was an aneurismal tumour the size of a large orange. At its most prominent point, and somewhat to its left side, was an irregular rupture, admitting the point of a little finger. The blood seemed to have escaped first between the folds of the lesser and gastro-splenic omentum, forming a thick layer of clot along the course of the splenic vessels, and enveloping the lower part of the œsophagus, around which it extended for some distance into the posterior mediastinum. It also extended between the folds of the mesentery of the large intestine and into the cellular tissue in front of the kidneys. The greater part of the wall of the aneurism was formed by condensed cellular tissue of the peritoneum. It formed a lobular sac, lying in front of the upper part of the abdominal aorta, with which it communicated by a nearly round opening about one inch and a half in diameter. This was situated in the anterior wall of the vessel, in the situation of the origin of the cœliac axis and superior mesenteric arteries. These vessels were seen to arise from a common dilated trunk a little below the middle of the aneurismal tumour. There was extensive atheromatous disease of the whole aorta *below* the arch, which was itself less affected. In the position of the aneurism the whole vessel was dilated, being upwards of two inches and a quarter in circumference. Near its termination the artery became narrowed to about one inch and a quarter in circumference, and the renal arteries were given off immediately below the opening into the aneurism. The aneurism contained a considerable quantity of loose black clot; its lining membrane was rough, and the arterial coat appeared only to extend over about one-half of its dimensions. The vertebræ in the vicinity of the tumour were healthy. Both kidneys contained many small emboli, but none of recent date; the spleen appeared free from them, and soft. Liver was of normal appearance, but its capsule near the anterior border in the middle line was much thickened. The other organs were healthy.

The preceding case offers a few symptoms which are worthy of notice as being usually looked upon as diagnostic of, or accompanying, abdominal aneurism.

1. An employment requiring violent exercise, and especially calculated to act injuriously on the parts more immediately affected by the almost constant pressure which the iron instrument exerted upon them.

2. The sudden setting in of the symptoms. Dr. Goodfellow gave it as his opinion that the patient's employment, from the cause alluded to in the preceding paragraph, had probably produced arteritis, and that the first rupture of the coats of the vessel took place when he was so suddenly seized nine months previous to his admission.

3. The severe and spasmodic dorsal pain, intermitting in its character, but not depending in this case on erosion of the vertebræ, as it is frequently supposed to do.

4. The constant dull pain which is mentioned by Stokes as frequently present.

5. The uniform and equable pulsation which many authorities say is constantly present.

6. The disease of the arterial system being confined chiefly to the neighbourhood of the aneurism—a frequent observation in abdominal aneurism.

7, and lastly. The want of proportion between the amount of suffering and the constitutional disturbance, there being little or no symptom of fever during the whole course of the patient's residence in the Hospital, the skin remaining cool and the tongue moist.

ROYAL FREE HOSPITAL.

CASE OF DISLOCATION OF THE ASTRAGALUS FORWARDS AND OUTWARDS—CASE OF FRACTURE OF THE OS CALCIS.

(Under the care of Mr. WEEDEN COOKE.)

[Reported by Mr. JEAFFRESON, Senior Resident Surgeon.]

THE following cases of rare injuries to the foot were both admitted into the Hospital at the same moment on the evening of November 21. They are both progressing favourably, and a daily record of their progress would be superfluous.

Jane J., a healthy young woman, aged 24, was thrown from a carriage. She described herself as having pitched upon her left foot, which was, at the same time, violently twisted inwards. Upon rising, she found it impossible to put the foot to the ground, as it was forcibly held in its twisted position. Half an hour after, she applied to the Hospital, and subjoined is a description of the appearance of the foot on admission. The foot is slightly extended, and rotated inwards to such an extent that the outer margin is the only part which touches the ground. The outer malleolus is extremely prominent, the inner having disappeared in the angle formed by the inversion of the foot. Upon the dorsum is a considerable bony swelling which occupies mostly its outer aspect. Over this the skin, which is much bruised, is tightly stretched; upon manipulation, the articulating surface of the astragalus for the scaphoid bone can be made out tolerably distinctly as occupying the most prominent part of the swelling. The malleoli bear their normal relation to the prominence of the heel; hence it is evident that the tibia and fibula have not accompanied the astragalus in the dislocation. All movement of the ankle-joint is lost, and the patient suffers extreme pain on any being communicated to the foot.

The mode in which the reduction was effected was this:—Having placed the patient thoroughly under chloroform, the leg being fixed by a powerful assistant, extension was made by means of grasping the foot and drawing it steadily downwards and slightly forward. Whilst this extension was being kept up, pressure was made firmly upon the prominence of the astragalus; finally, a movement of flexion was communicated to the foot, when the bone slipped into its cavity with a distinct snap. The foot immediately resumed its normal shape, and was put up in an ordinary swing fracture apparatus, to which one of my water pillows had been adjusted. Considerable constitutional disturbance, rigors, and much swelling followed; these, however, were easily subdued by suitable remedies.

The fracture of the os calcis occurred in a man aged 26. The case resembled in all its features the case which was reported in our journal of October 20, with the exception of there being no wound and all the other symptoms being more marked. As in the former case, the injury was produced by a fall from a height upon the heel, but beyond the fracture of the os calcis I believe there was some fracture of the astragalus, firm pressure in the direction of its head giving rise to crepitus and to a sensation as of a loosened piece of bone in this direction. The limb was placed upon an outside splint with a footpiece, the knee flexed, the foot extended, cold evaporat-

ing lotions applied. Little constitutional disturbance followed, and the patient is doing well.

December 11.—In both cases the limb has been put up in a gum and chalk bandage, and the patients are about to leave the Hospital.

HOSPITAL FOR DISEASES OF THE SKIN.

NOTES OF CASES UNDER MR. HUTCHINSON'S CARE.

Case 1.—Exceedingly Mild Symptoms of Congenital Syphilis in an Infant conceived within Two Months of the Disease in both Parents.

A young, healthy-looking married woman brought an infant, also apparently in good health, but with about half a dozen spots of copper-tinted psoriasis. Some of these were on its neck, and others on the genitals. They were insignificantly small, but their colour and glossy surfaces marked them as of specific origin. The mother's history was inquired into, and it now appeared that she had suffered from syphilis, received from her husband, two months before her pregnancy began. Her symptoms did not appear to have been severe, and at present she is quite well. In this case we have an instance in proof that a child conceived within a very short time of syphilis in both parents may yet escape with apparently slight taint. Excepting for the characteristic eruption, which is very sparing in quantity, the child appears to be in good health.

Case 2.—Syphilitic Phagedæna of the Nose in a Pregnant Woman (six years after the primary disease)—Want of Success by Internal Treatment—Cure by Escharotics—Particulars as to the Health of the Infant, etc.

Eliz. J. attended six months ago with syphilitic phagedæna of the nose. Her history was that both her husband and she had suffered from syphilis six years before. It appeared that her symptoms had been at the time but trivial. A child, born a year later, suffered severely, but recovered. Two children after that showed no symptoms which attracted her attention. She was now (when admitted) again pregnant, and within six weeks of her time. The phagedæna was steadily spreading, and had already destroyed the right ala. Iodide of potassium was ordered in ten-grain doses, but at the end of a week, as the phagedæna was not arrested and exceedingly painful, the sore was carefully cleaned and freely dressed with strong acid nitrate of mercury. The effect of this was to stay the phagedænic action, and entirely to relieve the pain. The iodide was continued, and the part steadily healed. This was the third attack during the last three years, in which the patient had suffered from ulceration of the nose. As the patient was thus known to be in the tertiary stage of syphilis, it became a matter of interest to see whether her child would suffer. The child, which appeared healthy at the time of birth, became liable, at about two months old, to eczema on the nates and ears. At present it is five months old, and in tolerably good health, but on the nates there are irregular patches of erythema and peeling of cuticle, which are quite definitely syphilitic. The child has no snuffles. It has varied very much in health, sometimes suffering from diarrhœa, and becoming extremely emaciated, and then rapidly recruiting again. No specific treatment has as yet been adopted.

Case 4.—Molluscum Contagiosum on the Nipple of a Mother and on the Face of her Child—An Ulcerated Molluscum looking like a Chancre—History of Contagion from another Child.

An important case, illustrating the contagion of molluscum contagiosum, came under observation on November 19. A woman brought her child, a healthy infant of two months, with a few small spots of molluscum on its eyelids and face. She said, however, that she had come chiefly on her own account. On her left nipple was an ulcerated tumour as large as a small cherry, and on the skin over the breast a little distance from it there was an open ulcer the size of a fourpenny-piece, and by the side of it a flat-topped molluscum. The latter was quite characteristic. The open ulcer appeared, from the woman's account, to have resulted from the sloughing out of a large molluscum follicle, and the ulcerated tumour by the side of the nipple was another unusually large molluscum in the process of like spontaneous cure. Under the breast, at a distance from the nipple, were two or three molluscum spots, just like those on the child's face. The case was interesting not only as furnishing a fact in proof of the contagion of the disease, but also as teaching the necessity for care in diagnosis. Had the other molluscum spots on the breast and infant's face not been present, the inflamed and ulcerated ones might very likely have excited a suspicion as to their syphilitic origin. This suspicion was indeed entertained by several who saw the case, the raised surface and hardened edges being very like those of a chancre. The contagion in this instance appeared to have begun with the mother, for she believed she had some spots before her confinement. She appears to have contracted them from one of her elder children, who had some spots on her face. A coloured drawing of the mother's breast has been made, and is preserved in the Hospital museum. A portrait has been published by the New Sydenham Society, from a patient under Mr. Hutchinson's care, which shows molluscum on the breast of the mother and on the child's face, and thus illustrates the contagion of the disease.

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Medical Times and Gazette.

SATURDAY, DECEMBER 14, 1867.

PHYSICAL SCIENCE IN OXFORD.

While the Blue-book containing the evidence taken before Mr. Ewart's Committee on the Oxford and Cambridge Universities Extension Bill is still before our readers, it may be well to take a retrospective view of what Oxford has been doing during the present year to further the study of the physical sciences. We do this the more gladly, as it will be seen from what follows that though Oxford has the problem of university extension still unsolved before her, she has, notwithstanding, done something to further the progress of scientific teaching. It will be convenient for our present purpose to separate at once in our review the collegiate from the professorial system, as of the latter it is not our intention to speak except in passing. Oxford, with her museum, work-rooms, magnificent scientific library, and numbering as she does among her professors such names as Phillips, Brodie, and Rolleston, may with reason congratulate herself on the facilities she offers for sound teaching and original research. The professorial staff leaves nothing to be desired; but something further was needed to enable the new studies, in their hard "struggle for existence," successfully to hold their own against two such powerful forces as the traditional studies of the place, combined with that *genius loci* so hard to combat because so indefinite, and the organised system of play which has of late taken such deep root among the younger members in the shape of athletic sports. Until within the last eighteen months, if we except two colleges, no continuous provision was made for the scientific instruction of the young men within their own college walls. Students had, as a rule, to seek from private tutors (the so-called coach) that help and instruction which, in the more favoured branches of university study, was provided for them by the college itself. Physical science, therefore, as far as the college was concerned, was virtually placed on the same level as the extra subjects at schools, to be got up in play hours when the regular lectures were over. It was easy to see, then, why the study itself, independently of its

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scanty rewards, came to be the least in favour, while the study of law and history, established at the same time, and for which the rewards held out are almost none, steadily increased in favour. It was obvious that, to place the study of physical science on a fair footing, it must be brought home to the colleges themselves by the appointment of tutors who could give that help and supervision to students which they would naturally get in the other branches of study. The present year has witnessed several steps in this direction. Omitting Magdalen and Jesus Colleges, where scientific lectures have for some time been given, we would notice the opening of a fine laboratory at Christ Church in which the Lees Reader in Chemistry has already given a course of lectures in addition to his college instruction. Merton, too, as though mindful of the wide range of study enjoined by her founder, has appointed a lecturer, elected a scholar, and will give an open Fellowship to physical science at the close of this month—a fitting tribute to the shade of Harvey, once Warden. Balliol has just elected the first physical science scholar on a new foundation, founded by the munificence of a lady as a grateful memorial of her deceased brother. Lastly, we must add that Wadham College has provided for the instruction of those who may wish to pursue these studies. With such increasing facilities, the cultivation of the natural sciences, we trust, will take a firm hold. Few of us can hope to see Oxford a Medical school, but it is encouraging to think that she is endeavouring to give to men, before they enter upon their Hospital work, that sound scientific training which in after years may contribute no little to make them worthy members of our time-honoured Profession.

ARE MEDICAL OFFICERS OF HEALTH NECESSARY?

There has been a strong fight made in the Town Council of Birmingham upon the *vexata quæstio* whether the borough should have a Medical officer of health or not, and after two full debates it has been decided that "the appointment of such an officer is both undesirable and unnecessary, as the present system is well adapted for detecting and dealing with epidemic or other diseases and for removing nuisances."

Divested of all the nonsense which is usually talked on these occasions, the case seems to stand thus:—Birmingham has for some time held a not unfavourable position as regards her death-rate among the large cities and boroughs included in the Registrar-General's Weekly Return, and it is claimed by those who have had the sanitary control of the town that a reduction on former mortality rates has been brought about by their exertions. They point to the fact that, under the Borough Inspection Committee, important drainage works have been carried out, and that, with a chief inspector and four or five subordinates, every nuisance is removed as soon as it is reported. "What more," they say, "could a Medical officer of health do than we have done? Birmingham is much healthier than Liverpool and Leeds, both of which places have officers of health, and, therefore, why should we go to an expense for which, at present, there appears to be no need?" Of course these are questions which the objectors to the appointment may fairly put, but they involve fallacies that, once exposed, lose altogether any argumentative value. For instance, the comparison of the death-rate of one town with another, although it may yield a rough-and-ready approximative test of the general state of health of the inhabitants, is quite inadmissible for any scientific determination of the relative efficiency of their sanitary organisation, unless there be a similarity of condition and circumstances in the towns so compared.

To compare Liverpool with Birmingham, then, is an absurdity. They are of the same genus, in so far as they both consist of an agglomeration of people within a given area; but in every other particular they belong to species entirely different. That this is so to an extent quite sufficient to account for the difference in the death-rates must be palpable to all who know the two towns; a seaport, with an ever-fluctuating population of the lowest and most degraded kind, has little in common with a thriving inland town. The geological formation of Liverpool, and the low elevation of a large part of the town area in close proximity to a tidal river, added to the fact that Liverpool contains (according to the report of the Health Committee) a larger number of unskilled labourers in proportion to its population than any other large town in the kingdom, are disadvantages unknown to Birmingham; yet in the last two years the death-rate of Liverpool has been reduced from 36 to 29 per 1000, thereby saving between 4000 and 5000 lives. Remembering that Dr. Trench possesses the entire confidence of the Liverpool authorities as their adviser in all sanitary matters, and that during the past year the corporation have spent £10,000 in connecting the drainage of poor property with the main drains, £1800 in opening courts, and upwards of £45,000 in the improvement of poor dilapidated property, the legitimate conclusion is that the services of a Medical officer of health are productive of an amount of benefit to the citizens which can hardly be overestimated. The city of Bristol, which, as Dr. Stewart has remarked, "neither looks nor smells wholesome," affords a remarkable example of what can be done for a place possessing so many disadvantages, by sanitary measures carried out under the judicious guidance of a skilled health officer like Dr. Davies. Whatever the Birmingham Town Council may think about the uselessness of Medical officers of health, it is indubitable that in both the cities we have particularised the citizens attribute their improved sanitary condition to the vigilance, care, and skill of their health officers. And it is the same everywhere, as must be evident from the fact that in none of the cities and towns where health officers have been appointed has there been the slightest attempt made to dispense with their services either on economical or other grounds.

Can the Birmingham Councillors point to any town possessing a health officer, and show that sanitary improvement has not invariably followed the appointment? We say confidently that, except in cases where the office has been established, but all real power withheld—where the health officer's position is almost nominal and his influence *nil*, in which case the appointment is a delusion and a snare—the result, mediately in some instances, immediately in others, has been a diminution of sickness and ultimate mortality.

The Birmingham people pride themselves on their low death-rate as compared with other towns, and this they would be quite justified in doing if the basis of comparison were not, as we have before said, open to objection. Is the population as densely packed as in the other towns? And is it composed in equal degree of classes in which the mortality is fairly comparable? It seems to us that upon the objectors to the appointment of a health officer lies the onus of proof that the mortality is not capable of much greater reduction than has hitherto been accomplished; the fact that more than half the children born in the borough die under 5 years of age is a sufficient proof that causes are at work which are beyond the capacity of a nuisance inspector to discover and remedy. To acquiesce calmly in a death-rate 4 or 5 per 1000 in excess of the necessary mortality of a town population properly found in sanitary requirements, is not advancement, but retrogression. A curious statement was, however, made during the discussion in the Council, which lets us into the secret of the objection to appointing a health officer. "In 1865 this borough did *virtually* appoint a Medical officer of health for the borough of Birmingham." That is to say, certain specific duties were assigned to an officer who was designated the "Borough Analyst"—those duties consist of making analyses of all such food, drink, and water as may be referred to him; to inspect nuisances when his attention is particularly called to them; to inspect fish, bad meat, etc.; and, in short, to give assistance in sanitary matters whenever he is requested to

do so. That Dr. Hill has performed such duties to the entire satisfaction of everybody is fully admitted; but it is manifest that he has never had the power to perform the proper functions of a Medical officer of health. He has had no control, and unless his advice is solicited by the Council he has no right to interfere in sanitary affairs. Now, to our mind, this is altogether objectionable. A Medical officer of health ought not to stand in the light of a mere outside referee; he should be able to *initiate* a course of action, not be called in to express an opinion after action has been taken. It looks very like as though the Birmingham authorities were in their own minds convinced of the necessity for a higher class of assistance in sanitary matters than they could get from an ordinary nuisance inspector, but that they were equally unwilling to put administrative power into the hands of a properly appointed Medical officer of health, or to pay the salary for such an appointment—although it was publicly stated in the Town Council that the cost of a salary of £500 a year would not be more than half a farthing in the pound on the rateable property of the town. No doubt it is considered a very clever thing to have managed so as to get the benefit of Dr. Hill's services *whenever they are wanted* without giving that gentleman either the position, power, or pay to which he is justly entitled.

From some observations made during the discussion in the Council, it would almost seem as if part of the opposition to the appointment of a health officer arose from the impression that it was sought to put Dr. Hill aside and choose another gentleman of the town for the post. If such an idea were entertained, we think that the objectors were to some extent justified, for it would be the extremity of unfairness to ignore the services which Dr. Hill has rendered. His chemical knowledge would be an essential recommendatory feature in his qualifications for the post of Medical officer of health, and it is plain from what has been stated about the amount of organic matter in the water supply of the town that the very closest attention in this respect is requisite to protect the health of the citizens.

We therefore strongly urge the Town Council to reconsider their unwise determination. We do not see that they can do better than appoint Dr. Hill at once to the post for which he is so competent; and if he be well paid and endowed with all necessary powers, we venture to predicate for the inhabitants of Birmingham a much lower death-rate than any they have yet experienced.

THE GEOGRAPHICAL DISTRIBUTION OF PHTHISIS.

THE last number of the *Journal de la Société de Statistique de Paris* contains an article, by Dr. Gross, of Berne, on the geographical distribution of phthisis, which cannot but have a peculiar interest for the Medical Profession, and for that reason we shall endeavour to present our readers with a condensed view of the facts and arguments by which the author seeks to fortify certain conclusions at which he has arrived.

The question is first asked if there exist in Europe any countries or localities possessing certain conditions favourable to the prevention or the cure of phthisis; if so, where are they, and how may their beneficial influence be most surely established?

The first point noticed is that each place which (beginning with the fathers of Medicine of Greece and Rome) has from time to time been recommended as a resort for phthisical patients, has in its turn been abandoned for some other place: Pisa, Nice, Malta, Madeira are found to be failures, and, according to Dr. Gross, the public are beginning to say that the Doctors have an object in sending far away, patients whom they are not able to cure. Medical geography, aided by statistics, proves that while phthisis is as frequent in warm climates as in more northern countries, yet that in the extreme North, as well as in the high plateaux of mountain ranges, a certain immunity from the disease is observed. Hirsch, in his excellent "Pathologie Historique et Géographique," gives the following ratio of deaths from phthisis to every 1000 inhabitants in different places, showing that the mean temperature has no marked influence upon the development of tubercular disease:—

	Per 1000.		Per 1000.
Copenhagen	3·4	New York	5·3
London	3·7	Philadelphia	5·6
Edinburgh	4·8	Baltimore	4·0
Glasgow	7·0	Boston	3·8
Paris	4·1	Charleston { Whites	3·7
Malta	3·3	Charleston { Negroes.	4·0
England	3·0	New Orleans { Whites	3·7
Dresden	3·0	New Orleans { Negroes.	4·1
Wiesbaden	2·9	St. Louis	3·5
Würzbourg	5·7	Memphis	5·0
Brunswick	2·9	New Jersey	1 7
Bavaria	3·7	Massachusetts	3·0
Algiers	2·9	Berne	4·5
St. Helena	2·2		

[We ought, *par parenthèse*, to note here that as there is no system of registration of causes of death in any complete form out of Great Britain, these statistics of phthisis must be taken for what they are worth]. Phthisis is as common in tropical climates as in temperate; in the Antilles, East Indies, Madras, Bengal, Bombay, Ceylon, China, the Islands of the Southern Ocean, Australia, New Zealand, Mauritius, Bourbon, and among the Hottentots of the Cape.

Authorities (particularised by Dr. Gross) have noted that phthisis is rare between the 50th and 60th degrees of north latitude; it is almost unknown in Iceland, the Faroe Islands, the northern part of Norway, Finland, Scandinavia, and in the Island of Marstrand (which has been called the Swedish Madeira). From 50° to 45° the malady increases in frequency, causing 114 out of every 1000 deaths in Vienna, 107 in Munich, 200 in Paris, 236 in London, and 135 in Berne. Between 45° and 35°, phthisis attacks at Marseilles a fourth (?) part of the population, at Genoa a sixth, at Nice a seventh, at Naples and Philadelphia an eighth, and at Rome a tenth. It is common in the basin of the Mediterranean, at Malta, Corsica, and especially in Sicily. Between 20° and 10° it is (as has before been said) frequent in the Antilles, where it is very destructive among the negroes. In Germany, the fewest cases are met with in the mountainous parts, Taunus, Erz-Gebirg, Hartz, and the forest of Thuringia, where, out of 80,000 patients attended by Dr. Brockmann, there were found only twenty-three tubercular cases, and of these nine had imported the germs of the malady from other districts. In France there is Briançon, the most elevated city in Europe (1306 mètres), where phthisis is almost unknown. In England a great difference is observed in the frequency of the disease, as between the metropolis and the centres of manufacture; while in the southern and northern agricultural districts it is proportionately rare. In Spain its frequency on the elevated plateaux of Castile and Estremadura is remarkable. In Portugal it would appear to be rare, Lisbon excepted. In Greece the malady is widely spread, especially in the cities. In Turkey, and notably in Constantinople, its frequency is very great. In Asia the rarity of phthisis on the Ghats and Neilgherry plateaux, those of Armenia and Persia, and on the steppes of the Kirghis, is attested by divers observers. According to Livingstone, phthisis ought to be nearly unknown in Central Africa, yet the negroes who are taken thence are decimated by that disease in the East and West Indies. The south of Egypt presents a notable immunity; Nubia likewise, as well as St. Helena, Teneriffe, the Azores, Sierra Leone, and Senegambia. Pruner states that phthisis diminishes in Egypt in direct proportion from the sea towards the south, to the point where in Upper Egypt it is very rare. In Algiers, once the promised land of the consumptive, it is a fact that the French troops are less exposed

to this cachexis than in France, but the civil population, notably the indigenous inhabitants, and the negroes, are often attacked. The high mountain ranges of North and South America are accredited with immunity from phthisis, while on the neighbouring coasts of Panama, Nicaragua, Mosquito, Guiana, Peru, and Chili, it ravages with aggravated symptoms.

Dr. Gross's geographical sketch satisfies him that climate alone, so far as it is measured by the mean temperature, exercises little influence on the development of tuberculosis; and further, that the notion that the disease diminishes in frequency from the poles to the equator, seems to be directly the converse of the truth.

But there is an atmospheric element which does exercise an unfavourable influence in respect of the prevalence of phthisis, and that is—humidity. Nearly all the countries and localities in which phthisis has been noted as frequent are distinguished more or less by great humidity, whilst those which are free from the disease have generally a very dry atmosphere, either by reason of their great elevation, or by great degrees of cold. American observations go to show that a dry air, in conjunction with a temperature not subject to much fluctuation, are conditions least favourable to the spread of phthisis, and that a temperature equal and *low* is preferable to a temperature equal and *high*. The reasons for the rarity of phthisis upon elevated plateaux are thus given:—"La pression atmosphérique étant moindre, les inspirations en deviennent plus profondes, le sang se répand avec plus de vigueur dans les poumons; de là une dilatation de ces organes et de la poitrine; l'air tonique et vivifiant des montagnes favorise la nutrition etc. Si l'air y contient un peu moins d'oxygène, l'ozone s'y trouve en plus grande quantité. Ne serait-il pas permis d'attribuer à cet air ozonisé une influence bienfaisante sur la maladie qui nous occupe? C'est l'électricité qui exerce l'influence principale sur la production de l'ozone, et sur les montagnes elle doit généralement être de l'électricité positive, selon les recherches de Werber."

Dr. Gross cites the names of Gastaldi, Fuchs, Jourdanet, Mühni, Lombard, Guilbert, Werber, and Schnepp, as authorities for the immunity of high elevations from tuberculosis. Lombard states that, although phthisis is common in the low valleys and middle regions of the Alps, it becomes more and more rare in the elevated parts, so that between 1000 and 1200 metres a few isolated cases are found, and from 1200 to 1500 metres it disappears entirely. The phthisical zone above and below which diseases of the chest diminish in frequency, is given approximately as extending from 400-500 to 1000-1200 metres. Dr. Gross, speaking from his own experience of military service in the Bernese district of Gessenay, has had during the last ten years but three cases of exemption on the ground of confirmed phthisis, and two from suspicion of tubercle; the population of the district is 4906, and the men called for service are mostly between 20 and 21 years of age.

Dr. Gross asks if, as the corollary of the propositions of which we have given an indication, it is not a legitimate conclusion that immunity from phthisis must be sought rather in very cold and very elevated localities than in warm countries. To the objection that in these more bracing situations the weak and delicate are carried off by other complaints before phthisis has had time to develope itself, Dr. Gross answers that if this were so, it could not upset the logic of rigorously observed facts which not only show that phthisis is rare in these altitudes, but that patients with incipient organic disease of the lungs recover their health under the influence of the drier and more ozonised atmosphere.

We quite concur in the great desirability of collecting reliable statistics bearing on the very important questions suggested by Dr. Gross, for we would venture to remind him that "*le scepticisme médical*" of which he speaks, is due in great measure to the fact that so many theories of disease have been started on data which have broken down on rigid examination, and that we are fully justified in requiring exact observation on a scale sufficient to neutralise chance errors before pinning our faith to anything new.

But whether the verdict of the Profession is for or against Dr. Gross's theory of phthisis, we shall all concur in thanking him and others who endeavour to solve the problem of how to save even a moiety of the enormous aggregate of deaths yearly caused by that one disease.

THE WEEK.

TOPICS OF THE DAY.

If the case of Baker, the Alton murderer, were weighed against that of Bordier, and the explanation of criminal insanity offered in either, there can be no doubt in which it would be more readily admitted. The man Baker, besides inheriting a strong taint of insanity from his father, who, within the last few years, has been the inmate of an asylum, and whose family history has been marked by instances of homicidal mania, had himself been remarkable for a weak intellect, and had frequently attracted the attention of persons with whom he came in contact by his strange behaviour and gloomy manner. The policeman of the district used to watch him home for fear he should commit suicide, and Baker himself had confessed to suicidal tendencies. Here certainly is a case which, taken together with the extraordinary character of the crime and the unparalleled circumstance of the entry in the journal, might *primâ facie* suggest doubt, not perhaps sufficient to permit an acquittal on the ground of insanity, but at least enough to suggest the propriety of some further inquiry into the culprit's mental condition. No mere Medical reasoning, apart from an examination of the present condition of the prisoner by a competent Medical commission, should be allowed to have any weight in the matter. The Home Secretary, were he advised after careful examination by a commission consisting of such men, for instance, as Drs. Maudsley, Blandford, and Wood, that Baker was an irresponsible agent, would doubtless be justified in recommending that his life should not be forfeited to the law. But nothing short of a unanimous expression of Professional opinion, founded on careful examinations, and given by several men who have made mental pathology the study of their lives, would satisfy the public or meet the requirements of the case.

In the present state of public feeling on the Workhouse question a very important inquiry was put by Lord Elcho in the House of Commons, on Friday night. Is it possible to distinguish between the casual and the vagrant poor? From Mr. Sclater Booth's reply to Lord Elcho it seems that the Poor-law Board are carefully seeking an affirmative answer to this question, and are anxiously watching an experiment in some of the districts of Gloucestershire and the neighbouring counties, where, by the introduction of a system of passes to be given to those who are believed to be deserving wayfarers, an attempt is being made to prove the possibility of such a distinction. We hope the experiment may be successful. The ward that is built to give a night's shelter to the honest artisan or labourer who is proceeding to a new parish in order to obtain work is not, or should not be, the place in which to harbour the beggar or gipsy who is bound for the next fair. We hope that the Government may be able in the coming session to introduce a Bill which shall provide for the wayfarer without adding new temptations to the Arab state of existence.

The inquiry at the Farnham Workhouse has now closed, and we await the report of the Commissioners. The evidence advanced on the part of the Guardians is, much of it, irreconcilable with that given by their accusers; whilst also much of the latter receives a totally different colouring from the depositions of the witnesses for the defence. Still there remains a sufficient amount uncontradicted and unexplained to show the

necessity for placing this and similar institutions more directly under Government surveillance. If Lord Devon's forthcoming scheme be a wise and moderate, at the same time an effectual one, it will assuredly receive the support of all parties. But it must be founded equally upon justice to the ratepayer and upon the undoubted claim for the necessaries of life which the pauper has on the community. By all means let charity flow into the workhouses, but it must be voluntary charity. The upper and middle classes have no right to indulge their benevolence at the expense of those who are just above the pauper class, unless, indeed, we acquiesce in Sidney Smith's definition of charity—"A. telling B. to give C. something."

We are glad to announce that the Metropolitan Poor-law Medical Officers' Association has been thus far successful in opposing the practice of taking pauper lunatics before a police magistrate for the purpose of obtaining an order of removal to an asylum. It will be remembered that the Medical Officers' Association memorialised the Poor-law Board on the subject, and that their remonstrance was strengthened by a recommendation from the Commissioners in Lunacy. From some correspondence published in the *Poor-law Chronicle* of December 7, it appears that the Poor-law Board admit the evils attending the present practice, and that, in consequence of the memorial, the Secretary of the Board has addressed a circular to the Metropolitan Boards of Guardians, wherein "the propriety of endeavouring to provide that some justice, having proper jurisdiction, should attend at the place where the lunatic may be living, whether at his own place of abode or at the workhouse, to hear and investigate the case, and make the proper order of removal," is urged upon the consideration of the Guardians. Mr. Sclater Booth adds:—"Should this be found impracticable, the Board do not doubt that the magistrates sitting at police courts will, so far as may be possible, arrange that the examination may be taken in a private room. Where a justice cannot be found conveniently to attend, the clergyman of the parish and the relieving officer may be applied to for this purpose. But the Board consider it undesirable that the latter course should be resorted to, except there be a very strong necessity."

Probably never before the great conflagration of Friday night last has a fire taken place so destructive to property and doing so little harm to life and limb. The casualties treated at the nearest Hospital, the Charing-cross, in consequence of the fire, were but three in number, and none of them serious—a cut wrist (magnified into a broken arm by the newspapers), a burn on the forehead, and an injury to the back caused by falling bricks.

Dr. Richardson's third lecture on anæsthetics was delivered on Tuesday last to a numerous audience. Amongst the subjects treated of were the rate of diffusion and the tension of different anæsthetic vapours. Dr. Richardson exhibited an ingenious instrument to measure the tension of different vapours, invented by Dr. Versman. One of the most important points brought to light by the lecturer was the important part played by temperature in modifying the action of anæsthetics. Two animals were submitted to the action of chloroform—one at a temperature of 80° and one at 40°. In the former case anæsthesia with no stage of excitement was produced in two minutes; in the latter, anæsthesia was incomplete at the end of three minutes, whilst there had been much excitement, and a tendency to vomit.

The preliminary meeting held on Monday last at Mr. Saunders's, to raise a sum to meet the legal expenses in the case of Absolon *v.* Statham, was an influential and numerous one. The solicitor for the defendant, Mr. Humphreys, stated that Mr. Statham's expenses in the late actions could not be much under seven hundred pounds. We hope that both the Medical and Dental Professions will come forward to assist Mr. Statham in bearing the heavy expense to which he has been subjected whilst defending his Professional reputation and good name. Mr. Statham's misfortune might have fallen to the lot of any one of us, and we hope that he will be supported by his Professional brethren as they, under similar circumstances, would wish to be supported.

Those of our readers who have the care of deaf mutes would do well to read an article in the *Cornhill Magazine* for the present month, describing an experiment which has been tried in Belgium, of teaching the deaf to produce sounds by making them watch the movements of other persons' lips. The difficulties attending this kind of education must be enormous, but still in many instances the experiment seems to have been, to a great extent, successful. The writer describes a whole class of deaf persons holding a conversation with their teacher, who talked with them in whispers, of which they did not miss a syllable.

The Council of University College, at a Session held on Saturday, December 7, appointed Dr. Charlton Bastian Professor of Pathological Anatomy in the College, and Assistant-Physician to the Hospital.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

At a meeting of this Society on Tuesday evening a paper by Dr. George Johnson was read. The paper displayed all the ingenuity for which Dr. Johnson is so remarkable, and, dealing primarily with a subject for which Dr. Johnson has done so much, it was listened to with extreme attention by a crowded auditory. Starting off with the fact that the smaller arteries contain most muscular fibres, Dr. Johnson proceeded to show how these became hypertrophied in chronic Bright's disease, especially in the kidneys. He showed that there was increased obstruction to the flow of blood through the tubular capillaries owing to the mal-secretion of urine, but that the grand obstruction was presented by the increased muscularity of the arteries prior to entering the Malpighian tufts. He upheld the doctrine that these minute arteries were the regulators of the current of blood, not the capillaries. He then proceeded to establish an analogy between the kidney and the lung in apnœa; in the latter case black or non-aerated blood produced spasm of the minute arteries, so that the blood was prevented from entering into the lung tissue, and if the body was examined immediately after death the lungs would be found exsanguine, and the right side of the heart gorged. In cholera collapse this was especially noticeable, and death was here caused by apnœa, not by paralysis of the heart.

Dr. Pavy objected to the statement that the blood was arrested by the minute arteries as contradistinguished from the capillaries. Dr. Howship Dickinson objected to Dr. G. Johnson's account of the morbid anatomy of the kidney in chronic Bright's disease, and produced some drawings in support of his opinions. Dr. Burdon Sanderson then pointed out that Dr. Johnson was in error when speaking of the pressure of the blood in apnœa being increased. His views were founded on John Reid's researches, but since the time of that lamented gentleman the method of physiological research had been very greatly improved.

Dr. Johnson's reply concluded an unusually instructive meeting. A letter of apology from Sir T. Watson was read regretting his unavoidable absence, and the Society dispersed, to meet again in January. At the next meeting Dr. Johnson is to display some of his preparations.

THE ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

We have already chronicled the proceedings of the St. Andrews Medical Graduates' Session, and we are glad to say that the effect of the combination is not likely to terminate with the mere *éclat* of a success which must have more than satisfied even the most enthusiastic advocates of the cause. We observe that the general press speaks with much commendation of the principles which the Graduates met to sustain, and that the *Sunday Times*, one of the most consistent

supporters of the present Government, congratulates the Profession on the general interest which it has shown in the discussion of social and political no less than of Professional subjects. Our readers are aware that at least 1250 out of the 1300 Medical Graduates of St. Andrews would, by the Scotch Reform Bill, as it was introduced last session, be excluded from the franchise, and thus have no voice in the election of a member who is to represent their interest in the Parliament of the United Kingdom. The Graduates feel this to be a gross injustice, and we confess to an entire sympathy with them. A Parliamentary representative placed in power independently of them might, in fact, if it served his purpose, destroy their status altogether by the mere utterance of a few sentences, against which they would have no kind of appeal. Again, the relative positions in which graduates of the Universities of Edinburgh and St. Andrews would under the following circumstances be placed, would be perilous in the extreme to the latter. Let us suppose a Surgeon of a regiment to be a M.D. St. And., and an Assistant-Surgeon of the same regiment to be a M.D. Edin. There is an election for M.P.: the junior has a vote, the senior none. No one who knows anything of Medical military life can doubt the result. The inference would be inevitable, that the senior, whatever might be his abilities and standing, held an inferior degree—an inference utterly destructive of that respect on which alone a healthy discipline is sustained. This is surely a sufficient reason for the enfranchisement of all the Medical graduates of St. Andrews, but there is another among many equally cogent. We want to know why, if it be the intention of the framers of a Reform Bill to extend the franchise to all fit persons, they should systematically exclude at least 1250 members of a learned profession who of all men, by their education, their position, and the responsibilities of their daily life, are most fitted to form a good judgment of the necessities of the community and of the man who is most competent to legislate for them.

THE CLINICAL SOCIETY.

This Society, now fully equipped, is about to start on what we hope will prove a long career of usefulness. We think its success is assured: a young and vigorous correlate to the Pathological Society was needed, and that want the Clinical is intended to supply. That there is no jealousy of this new institution on the part of the elder sister is shown by the list of office-bearers which we subjoin. There we see the names of the President of the Pathological Society (Mr. Simon), several of the Vice-Presidents (Drs. Peacock, Ogle, &c.), the Medical Secretary (Dr. Murchison), and the Treasurer (Dr. Quain). This is as it should be; and however much we regret the necessity of creating a new institution, the pressure of work on the Pathological Society has been greater than it could bear. Merely to show specimens and to elicit no comments were dry work indeed; but if the list of specimens were to be got through at all, it must soon have reached this point in the Pathological Society. But we may be permitted to hope that the new infant Hercules, with its list of 120 names already down, will soon change all that. In the meantime we bid it most heartily God speed. We shall be glad to do our uttermost that its success may be secured.

Council, 1867-8.

President: Sir Thomas Watson, Bart., F.R.S. *Vice-Presidents:* Dr. Acland, F.R.S.; Dr. Alderson, F.R.S.; Dr. Burrows, F.R.S.; Dr. Jenner, F.R.S.; Dr. Walshe; Dr. Williams, F.R.S.; Sir W. Fergusson, Bart, F.R.S.; Cæsar H. Hawkins, Esq., F.R.S.; John Hilton, Esq., F.R.S.; Professor Humphry, F.R.S.; James Paget, Esq., F.R.S., and John Simon, Esq., F.R.S. *Treasurer:* Dr. Greenhow. *Council:* Dr. Anstie; Dr. Marcet, F.R.S.; Dr. Murchison, F.R.S.; Dr. J. W. Ogle; Dr. Peacock; Dr. Quain; Dr. Russell Reynolds; Dr. Sibson, F.R.S.; Dr. Southey; Dr. Hermann Weber; A. Bruce, Esq.; Campbell De Morgan, Esq., F.R.S.; A. E. Durham, Esq.; Ernest Hart, Esq.; Christopher Heath, Esq.; T. Holmes, Esq.; J. W. Hulke, Esq., F.R.S.; J. Hutchinson, Esq.; Sydney Jones, Esq., and Sir Henry Thompson. *Honorary Secretaries:* Dr. Burdon Sanderson, F.R.S., and George W. Callender, Esq.

WINE FOR MILITARY HOSPITALS.

We believe we are correctly informed when we state that the propriety of introducing light wine for use in Military Hospitals is at present under the consideration of the Director-General of the Army Medical Department, and that the experiment is about to be tried. We have so frequently, and for such a length of time, advocated the more general use of such wines, both as adjuvants of Medical treatment, and as agreeable and wholesome beverages, that we hope the result of the experiment may be satisfactory. The tastes of the British soldier may be in favour of more fiery fluids, but we feel certain that in the treatment of the dyspepsia and general cachexia with scorbutic tendency, consequent on prolonged exposure to malarious influences in tropical climates, the French and Hungarian wines, from containing the saline ingredients of the grape, will be found to possess most valuable remedial properties, and to be infinitely preferable to the alcoholic compounds hitherto in vogue for hospital use. We have no doubt also that for the same reasons, and in consequence of the smaller proportion of alcohol in such wines, they may be given with great advantage in phthisical cases, in which the more spirituous port and sherry can hardly be used without incurring the risk of hæmoptysis or gastric irritation. We hope to see the day when the "Strong Military ditto" will cease to hold its place among the attractive designations applied by wine merchants to their wares.

PEOPLE'S MARKETS.

A practical illustration of a suggestion in a recent number of this journal that a scheme for the erection of people's markets would be found to succeed, both in its monetary and charitable aspects, is afforded by the opening of a retail market on Saturday last in the Whitechapel-road. The new People's Market, which has been established under the auspices of a limited liability company, bids fair to be a remunerative speculation to its originators; and, if we can predict as to its future in so early a stage of its career, it is likely to confer a lasting benefit on the poor of the locality. It is complete in itself, having separate spaces devoted to the several trades: thus the butcher, baker, butterman, poulterer, grocer, greengrocer are each and all represented. It is intended to add a soup-kitchen to the list of stores, and three large coppers, each capable of containing 400 gallons, are in process of erection. On Saturday last the building was crowded with buyers, and a brisk business was transacted between the Company and its customers. The provisions are supplied direct from the wholesale markets, and are sold at prices below those of the retail trades of the neighbourhood. Of course, at present the new institution can only be regarded as an experiment, but we are sanguine in our hopes of its ultimate success, and we trust soon to see other localities besides Whitechapel provided with "People's Markets," at which the poor may purchase good and wholesome food at such prices as shall leave not more than a fair profit to the tradesman.

THE WEST INDIA REGIMENTS.

The *Army and Navy Gazette* demands a very necessary and just reform in calling upon the Government to do something to compensate the officers of West India regiments for the damages incurred in service in such climates as those of the West Indies and the coast of Africa, between which two purgatories they seem to oscillate. The officers of these regiments go through all the dangers of a continual campaign in steadily

facing the pestilence of the climate in which they live; yet for all this we offer them no return. On their part, they are as faithful servants as their more favoured brethren at home; and are we on our side to offer them less substantial reward? The West India officer gets none of the applause and honour which meet his fellow-soldiers in Europe. "He creeps home," says our contemporary, "from Honduras or Jamaica yellow and emaciated, and after a few months have served somewhat to re-establish his vitality, he goes out once more deliberately to fight the plague-demon of the West Coast." The horrors of West Indian life need not be dwelt on to show the justice of the cause advocated by the *Army and Navy Gazette*. It must be confessed that the West Indian officer does not receive the reward of merit, and we can only hope that the authorities will take the matter in hand. Surely the man who fights for years against so powerful an enemy as yellow fever is as brave as he who, during a few hours of excitement, carries a breach or storms a citadel. A yellow-fever medal would be looked on as an absurdity; and yet we think there are not a few who would prefer the field to the fever.

PROTECTION AGAINST FIRE.

A SERIOUS moral is pointed by the recent destruction of Her Majesty's Theatre by fire. How long will our Government allow large masses of people to run the risk of presenting us with a second edition of the Santiago tragedy? There is no sensationalism in putting such a question, for we do not hesitate to say that had there been a performance at "Her Majesty's" on Friday night last, the consequences would have been such as we shudder to think of. As long as no legislative bar is opposed to the proprietors of places of public amusement, so long will there be an absence of protection against fire, and an utter disregard of the possible danger consequent on an alarm of fire. Ground space is so valuable in London, that it is natural enough for the speculator to contrive public buildings to contain as much "paying room" as possible, and to pay very little attention to eventualities indirectly associated with immediate profit. But it is the imperative duty of the authorities to provide for such serious emergencies, to frame a law under which all public buildings in which large numbers of people are congregated together shall be made fire-proof, and shall be provided with such means of egress and ingress as shall prevent those horrible results which, under existing arrangements, invariably follow the panic which ensues on an alarm of fire. Whether the suggestion of *The Times*, that the stage of a theatre should be capable of separation from the body of the house by means of an iron screen, be, in the opinion of engineers, worthy of consideration or not, remains to be seen. At all events, the whole subject is one which ought to receive immediate attention; one on which the highest authorities should be consulted; and, finally, one on which conclusions should be cautiously and dispassionately arrived at.

HEALTH OF EUROPEAN TROOPS IN BOMBAY.

IN the Report of the Sanitary Commission of Bombay for 1866 we find that among the European troops in a weekly mean strength of 12,051 there were 717 men constantly sick and 153 died; or, in other words, approximatively "the services of *six* out of every *one hundred* men were wholly lost through sickness, and *five* out of every *four hundred* men died." We are also told that "the sickness has been slightly greater, and the mortality less, than in the preceding year." On looking at table No. 3, page 37, we find as follows:—

Ratio to Strength per Mille.

	Admissions.	Daily sick.	Deaths.
1865 .	1520	56·4	35·1
1866 .	1410	59·5	12·7

So that the admission rate by which we attain a more correct idea of the amount of sickness, was *lower* than in 1865, while the daily sick-rate was higher by *three* per thousand. This is probably to be accounted for by the fact that during the cholera epidemic in 1865 the rapidly fatal nature of so many of the cases reduced the average daily sick in Hospital; so that it appears to us that an erroneous impression is given by judging the amount of sickness from the "daily sick-rate" instead of from the "admission-rate," as has been done in the passage quoted above.

The lowest rate of mortality in the Bombay army was in 1863; it was then 12·03 per thousand; the rate for 1866 (12·7 per thousand) closely approaches it. The death-rate in 1865 (viz., 35·1 per thousand) was exceptionally high on account of the cholera epidemic, and deducting from it 15·4, representing the mortality of that year from cholera, a balance of 7 per thousand in favour of 1866 is still apparent, "and is contributed to by a slightly diminished death-rate in all the diseases which have afforded fatal cases." During the year 1866 there were only 8 cases and 7 deaths from cholera in the Bombay Presidency. Seven of the cases occurred at Poonah and one at Kirkee. Malarious fevers were much less prevalent and fatal than in the preceding year, but were the cause of four times more sickness than any other one disease, except venereal. The latter disease in its various forms caused 2556 admissions into Hospital, being in the ratio of 212 cases per thousand men, and shows a greater prevalence than in the previous by 10·3 per thousand. It caused 15 per cent. of the entire sickness. Rules for the prevention of venereal disease were promulgated, but it is not known that any action has been taken in the matter at any station in the Bombay Presidency, except at Nuseerabad. Scurvy occurred in the 45th Regiment at Poonah; but it appears that the seeds of the disease had been sown in Neemuch. At Mhow, Kurrachee, Aden, and Nuseerabad, this disease also appeared to a considerable extent, and in degree according to the order in which they are named. It is to be hoped that the greater attention which is now being paid to the rations of the troops, and particularly the proposed issue of a certain proportion of European vegetables at all stations, will remove the tendency to this disease.

The system of dry earth conservancy has been introduced into almost all stations, and is found to be working satisfactorily. Among the native troops there was little sickness from epidemic disease. Malarious fever caused nearly half the entire sickness and one-fourth of the mortality. There were per 1000 of strength 1177 admissions, 36·9 constantly sick, and 6·6 deaths in Hospital.

The Sanitary Commission of Bombay, unlike that of Bengal, is presided over by a Medical officer, A. H. Leith, M.D., Deputy Inspector-General of Hospitals in the Bombay service. The members are Colonel H. W. B. Bell, R.E., and T. B. Beatty, M.D. The latter officer also acts as secretary. In Bengal the Sanitary Commission was formerly presided over by a member of the Civil Service, and now by a Major in the Staff Corps. We must say that Bombay appears in this matter to be in advance of the senior Presidency, although, where the interests of such a large European force are concerned, we incline to the opinion that the senior Medical officer of the British Medical service, or another officer selected by him, ought to hold a prominent position on the Sanitary Commission in all the Presidencies.

FROM ABROAD.—ABSORPTION OF SOLID PARTICLES—MEDICAL RESPONSIBILITY.

PROFESSOR CROCQ, of Brussels, has submitted an interesting paper to the Paris Academy of Medicine on the mechanism of the penetration of solid particles through the tissues of the economy. Formerly, he observes, it was believed that only liquid substances were capable of absorption into the animal tissues, but Donders, Moleschott, and other observers have shown by their experiments that very minutely divided solid particles may penetrate these. In further illustration of this

subject, Professor Crocq has also performed a numerous series of analogous experiments, varying them in every possible manner, in different animals. To this end he has employed vegetable and animal charcoal, chromate of lead, chalk, ink, Schweinfurt green, starch, blood, etc., bringing the solid particles in contact with the skin, clothed with, and deprived of, its epidermis, the cellular tissue, the serous and mucous membranes, and the pulmonary alveoli. He has frequently, but not invariably, detected these particles in the blood and in the tissues which they were intended to penetrate. This penetration would seem at first sight analogous to the absorption of fatty bodies in the intestinal cavity, the fatty droplets being, in fact, only suspended in the emulsion of which they form part. These droplets pass into the conoid cells of the epithelium, and thence into the villi of the intestine. But this is never found to be the case with the solid particles, desquamation of the epithelium being an essential preliminary to their penetration. The different issue of various experiments that have been made is thus explained; for while there is no penetration of the skin when intact, this readily takes place in integument deprived of its epidermis, or in the cellular tissue. This explains, too, why such penetration takes place easily in the serous membranes, which undergo desquamation so rapidly on contact with foreign bodies; why it sometimes, but not always, occurs in the intestinal cavity, and on the other hand constantly takes place by the pulmonary alveoli; and why it results much more easily in the intestinal canal of mammalia than that of batrachians, the epithelium of which is less caduceous. The epithelial barrier traversed, the solid particles pursue their course through the interstices of the tissues, the pressure exerted upon them by the surrounding parts, and the movements of the liquids which impregnate all parts of the economy, favouring their passage. Eventually they enter the vascular system, to be transported to all parts of the body, the lymphatic vessels being the channel through which they gain admission.

The beneficial character of the French Medical Association is often exhibited where the rights of its members are interfered with or their interests have to be defended. An instance of this has recently occurred. A drunken man fell out of a window into the street, from a height of some twelve feet or so, and injured his hip. M. Richert, called to him, diagnosed a fracture of the cervix femoris, and placed the limb in Bauden's apparatus. On the sixth day, the patient complaining of the constriction being too great, the bandages were loosened, and it was found that gangrene had affected the leg and lower part of the thigh. At a consultation amputation was determined upon and performed. As soon as the patient recovered he brought an action against the Surgeon, laying his damages at 30,000 fr., for having caused the loss of the limb, in consequence of his negligence in not loosening the bandage, notwithstanding the repeated entreaties of the patient to that effect. The Tribunal of First Instance at Metz pronounced a decision against the Surgeon for having committed a serious fault, for which he was responsible, and placed the damages at 12,000 fr. The Surgeon now demanded the opinion of the "Medical Association of the Moselle," of which he is a member, as to how far the condemnation to which he had been subjected was justified by the facts of the case. After an elaborate investigation of these, the Administrative Committee of the Association were so well satisfied of the innocence of their colleague, that they not only advised an appeal against the judgment, but drew up an elaborate memorial, in which all the circumstances and the testimony were critically examined, with a view to show that culpability had been wrongfully asserted, and that the unfortunate issue of the case was in nowise due to the negligence of the Surgeon. This statement of the case was placed by the Association in the hands of an eminent advocate, and the Imperial Court of Metz, on the appeal being made, at once quashed the judgment of the lower tribunal. This seems to us a very tangible benefit derived from the Association, which, without binding itself to defend one of its members, right or wrong, yet, after having thoroughly investigated the facts of the case, took upon itself the task of obtaining the reversal of an unjust verdict, and the saving of a *confrère* from unmerited ruin. M. Latour is well justified in pointing to this case as a notable example of the "assistance and protection the noble aim of our institution."

In this case, although responsibility was not sought to be evaded, the accuracy of the tale told by the prosecutor being alone called into question, the Advocate-General entered into an elaborate and able exposition of the state of the law as regards Medical responsibility. This may be perused at length in the *Union Médicale* for December 3, and we will confine ourselves to a passage from the document:—

"All Medical men are responsible, notwithstanding the examinations they may have undergone and the diplomas they have obtained. They are so because such examinations and diplomas only establish a presumption in favour of their knowledge, experience, and aptitude, without creating in their favour a privilege of irresponsibility from which society might unjustly suffer. But within what limit are they responsible? Where commences their responsibility in relation to their patients? If we are to reject absolute irresponsibility as a public peril, we must likewise, in equity, reject the principle of indefinite responsibility as an attack on the dignity of Medicine, and as a mischievous obstacle to the progress of science. If Practitioners were exposed to daily actions on the part of their patients, the profession of Medicine would cease to be possible. Would any one perform a Surgical operation which might place life in danger if, in case of failure, he had to fear a judicial condemnation? Who would prescribe one of those remedies which may kill or save the patient if he were menaced with having discussed before the tribunals the efficaciousness of a remedy which he had conscientiously resorted to? No! the responsibility of the Practitioner cannot be regarded as indefinite. When he acts within the limits of his art, with a conscientiousness in his opinion and the goodness of his system, he incurs no responsibility. In order that he may be declared responsible, the faults imputed to him must be palpable, evident, and incontestable. On the contrary, if there be any doubt as to the existence of the fault, the cause of the accident, or the damage done, and if the question of the existence of the fault raises scientific difficulties or Medical controversies, then there can be neither responsibility nor condemnation. We have no right to suppose the fault, and no condemnation can issue for a doubtful or even probable, but undemonstrated, fault. Such are the principles which should guide in all this class of affairs. Practitioners are responsible, conformably to the common law, for all their faults, imprudence, or negligence—with this sole condition, that such fault, imprudence, or negligence be so established as to allow of no doubt on the part of the magistrate."

MOVEMENT TO IMPROVE THE REMUNERATION FOR ATTENDANCE ON CLUB PATIENTS AT CHESTER.

(*From a Correspondent.*)

We are rather anxious to draw attention to a movement which recently commenced in Birmingham, and has now extended to Chester, and which smacks something of a trades' union amongst Doctors. "At a meeting of the Medical Profession of Chester and its neighbourhood, held on November 13, the following resolution, amongst others, was unanimously agreed to—'That for the future no engagement be entered into for the attendance of club patients at less than 4s. a year for each member.'"

Now, we have no sympathy with anything whose tendency is cheapness at the expense of efficiency, and though in many cases we doubt not that the present low scale of payments to club Doctors gradually leads to rapid diagnosis, lax attendance, and cheap medicines, yet we firmly believe that this movement on their part is wrong, that it lowers them in the eyes of a well-informed public, as well as irritates managers and members of clubs.

Whether we may expect any personal exhibition of feeling towards those who refuse to join in this movement, known in other trades' unions as "rattening," is more than we can answer for; whether, for instance, one of those unfortunates who will persist in attending club patients at 2s. 6d. each, will find his "magnes. sulphas" spoiled, his "mist. camphor." upset, or his "lign. hæmatox." burnt (these being his cheap club drugs), and so find himself obliged to give more costly medicines; or whether more violent attacks will be threatened, such as obliging him to swallow some of his own medicine, or bleeding him with some of his old rusty lancets, we leave to the union and its futurity.

We are sorry that there should be found any necessity for so peculiar a combination on the part of the Chester Doctors, but so long as there are young men beginning their Profession with little to do, and with an anxiety to become known by their works, so long will there be a supply of good men to do cheap work, whether that be to supply clubs at 2s. 6d. per member, or to attend twice a week and prescribe for patients at an Infirmary or Dispensary for nothing.

There may be many reasons for taking ordinary clubs at a cheap rate—first, a desire to avoid contracting accounts with the labouring classes who cannot pay a Doctor's bill, especially after an illness, and who are besides very much given to change of residence, so that it is often as difficult to find them as to get the money; next is the evident certainty that if the bulk of these labourers were not in a club, they would, on being taken ill, become from the onset a burden on the parish, and the same Doctor most likely would then have to attend them for nothing. Then, again, there is, we trust, some laudable desire to help a working man in his trouble, and to try to foster that independent spirit which teaches him that he is happier when he claims his due than when he asks a charity. We feel sure that, though it may be thought advisable to recommend a minimum rate under which clubs should not be taken, yet the circumstances under which a Surgeon seeks a club, and yet more the circumstances and position of the members composing such clubs, are of such infinite variety that no such rule as the above will meet all cases. What we should prefer seeing would be some combination of the Surgeons of a district from whom the members of a club must of necessity select a Surgeon, so that when a club falls vacant they may meet and agree upon what rate the members can be properly attended, taking into consideration the relative distance of the club-room from the Surgeon's residence, the distance from the club-room at which the Surgeon is required to attend members, and, what is of more consequence, the position in life of the members composing such club. Should the club have previously had a Surgeon, he will of course be able to fix something like a rate at which efficient attendance can be given. Should it be a newly formed society, the club Doctors in the neighbourhood will of course be able to form the best opinion as to the rate required.

FOREIGN CORRESPONDENCE.

FRANCE.

PARIS, December 5.

THE interesting subject of female Medical practice, which has already, under various forms, been brought before several of the English Schools of Medicine, was raised a few days ago at the Paris Faculty, under the following circumstances:—An American lady, who has taken her Doctor's degree in her own country, and who has for some time been studying Medicine and walking the Hospitals in this city, made a formal application to be allowed to pass her examinations here *ad summos honores rite obtinendos*. Although a few of our most eminent Professors were inclined to favour the demand, it was stoutly opposed by several other members of the Faculty, and ultimately rejected by a very large majority.

The petition will therefore be referred to the Minister of Public Instruction, the Faculty having positively refused to entertain it. Now, although the well-known tendencies of that eminent functionary—although his well-known liberality and love of all that resembles progress might perhaps induce him to look favourably on the lady's request—he cannot invest her at once with a degree for which no examinations have been passed. To confer such honorary distinctions is a privilege of our scientific bodies, which they are not yet ready to part with.

The question, therefore, is, whether the decision of the Faculty will or will not be reversed, and whether we are going to have a lady student amongst us. It seems unlikely that the almost discretionary authority with which the Minister is invested will be stretched to this point. It is well known that many a Frenchwoman burns with the desire of entering her name upon the register, and being ultimately numbered among our Professional brethren. Now, it is evident that, had such a permission been granted to a foreigner, it could not decently have been refused to natural-born French subjects. We should then, in due process of time, have had a considerable sprinkling of the fair sex among our Medical students; and whoever is acquainted with the temperament of the Celtic race must be aware that a state of things, which in America might, perhaps, subsist without offending the rules of the strictest propriety, would in this country result in the most unmitigated scandal.

A due satisfaction is, however, afforded to the Medical ambition of the fair sex in the great School for Midwifery at the Maternity of Paris, which grants first- and second-class diplomas for the practice of obstetrics. Many an eminent female Practitioner has gone through her studies in that celebrated establishment, and has afterwards devoted her attention not only to the art of *accouchement*, but also to the special diseases of women. We think, with all due submission, that the interference of ladies in Medical practice ought to stop at this point. We should hardly feel inclined to encourage them in breaking through the salutary restraints which society has imposed upon their sex. Science, like fire, has the gift of purifying all things; but there are certain subjects which, from our very respect and tenderness for women, we do not wish to see them handle too freely. Such, at least, are our views in France, although they may seem antiquated to the highly enlightened people across the Atlantic.

The numerous vacancies which the hand of death has created in our scientific bodies are being rapidly filled up. The Faculty has just presented two new Professors to the vacant chairs. We need hardly remind your readers that it is customary to draw up a list which is brought before the *Conseil Académique*, and ultimately submitted to the Minister's approbation, there being a tacit understanding that the first candidate on the list shall be selected for the appointment. In Anatomy, Drs. Sappey and Marc Sée; in Surgery, Drs. Verneuil, Trélat, and Dolbeau, have been presented by the Faculty. Dr. Sappey is the author of a treatise on descriptive anatomy, which has long been classical. Dr. Verneuil is one of our most distinguished young Surgeons.

At the Academy of Medicine, Dr. Hérard, whose researches on tubercle are, no doubt, well known to all your readers, has just been elected as a member of the Section of Internal Pathology. His principal competitors were Professor Sée and Dr. Fauvel. Two other vacant seats remain in the Section of Therapeutics; one of these will in all probability be filled by Dr. Davaine.

The death of Velpeau and Rayer has left two vacancies in the Academy of Sciences. It may almost certainly be predicted that the successor of Velpeau will be Professor Laugier; but the other prize will probably be lost to the Medical Profession, as it is supposed that a chemist will be selected.

Another vacancy has just occurred in the same illustrious body by the death of Flourens, the celebrated physiologist. But although the labours of that eminent observer were closely connected with the Medical sciences, it is not likely that his seat will be filled by a Medical man. Flourens was one of the two perpetual secretaries of the Academy, and any other member may be elected in his stead; so that the vacant seat may exist in the section of mathematics, of physics, or of chemistry, according to the candidate on whom the choice of the Academy may fall.

ACADÉMIE DE MÉDECINE.—M. Hérard has just been elected into the section for Medical Pathology. The other candidates were MM. Fauvel, Bernutz, and Sée. The ballot-box had to be sent round three times, and it is long since so hard a struggle has taken place. The Academicians met in unusual number—namely, 80—and an absolute majority of 41 was required. On the first turn Hérard polled 32, Sée 26, Fauvel 21, and Bernutz 1. On the second, Hérard 40, Sée 24, Fauvel 16. On the third, by which time the votes were reduced to 77, Hérard obtained 55, and Sée 22.

GENERAL CORRESPONDENCE.

THE SUPPRESSION OF URINE IN COLLAPSE.

LETTER FROM DR. GEORGE JOHNSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I regret to find that during the recent discussion on cholera at the Medico-Chirurgical Society I expressed myself so obscurely that your intelligent correspondent Mr. Sedgwick misapprehended my explanation of the suppression of urine in collapse. The explanation which I gave then is the same which I have given before—namely, that, in consequence of a partial arrest of the circulation, there is defective respiration or oxidation of blood, and, therefore, suppression or great diminution of those secretions which are products of oxidation; this includes bile and urine, and excludes milk. This explanation is the one which I have always given, and which I believe to be the true one. I shall be very happy if Mr. Sedgwick can give us a theory which is more consistent with the facts.

I am, &c. GEORGE JOHNSON.

11, Savile-row, December 7.

DOES INHERITED SYPHILIS PREDISPOSE TO TUBERCULOSIS AND RICKETS?

LETTER FROM MR. HUTCHINSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In last week's journal you quote, as "very important," the remarks of one of our first authorities "on the relation of a syphilitic taint to tubercular, strumous, and rickety diseases successively appearing in children of one family." You state that "he traces the influence of a syphilitic taint, minimised, as it were, by the process of time, as the increasing family brings poverty, defective hygiene, and insufficient food into a more and more prominent position; and he thinks he sees in that an explanation why the later-born children should be tubercular, strumous, or rickety, while the first or second born should present syphilitic symptoms." I have purposely omitted the name of your authority, because I shall have to differ from him, and wish to wholly exclude the personal element. I believe, moreover, that the opinion expressed is one which is very widely entertained. My motive for now addressing you is because the truth or otherwise of this opinion is of very great importance to the community, both as regards the prevention and the treatment of some of our commonest diseases.

The determination as to what should, and what should not, be assigned to the remote influence of a syphilitic taint is one of very great difficulty; yet I hope to be able to show that there are certain methods of inquiry, by pursuing which a fairly satisfactory conclusion might be arrived at. I am sure you will agree with me that the time for mere speculation and conjecture is passing by. There were those amongst the Physicians of more than a century ago who suspected a taint of lues in almost all the chronic maladies of youth, and a living author has, long prior to the authority you quote, asked, "Is not all struma syphilis?" In support of such suggestions, however, few or no facts have been brought.

On the other hand, a very considerable body of evidence has been collected, which favours the belief that the results of syphilis, from first to last, are specific and peculiar, and that, with due care, they may be distinguished from those due to other causes. In infancy, if a syphilitic child has a rash, it is peculiar, and he is not more liable than others to common eczema and the like. So at the age of puberty he may have nodes, interstitial keratitis, deafness, phagedenic lupus, or visceral disease, but whatever he has it is still peculiar. No non-syphilitic child would, by any chance, present similar conditions, nor does the syphilitic one display those common to other forms of cachexia. With the utmost deference to the great authority whose opinion you have quoted, I venture the opinion that syphilitic children will not become either rickety or tuberculous. I use those words in their strict sense; we must not confuse periostitis, or general want of development, with rickets, nor gummous deposits in glands or viscera with tuberculosis. You will observe that I avoid dispute as to "struma." The word "struma" is too indefinite in its meaning to admit of any profitable discussion as to its causes. What one Surgeon would call strumous another would unhesitatingly consider syphilitic, and, without any doubt, a considerable array of symptoms which were formerly ranked as "struma" we may now safely class as specific. The now typically syphilitic physiognomy used formerly to be considered the typically "strumous." I, therefore, restrict our difference of opinion to rickets and tuberculosis—conditions which are definite and well understood.

Respecting these two diseases, I think that we may convince ourselves by two modes of examination. First. Let any one collect a large group of patients undoubtedly the subjects of inherited syphilis, as denoted by teeth, physiognomy, and keratitis, and then inquire as to the diseases from which their brothers and sisters have suffered. If he finds that their brothers and sisters have suffered with any unusual frequency from rickets or tuberculosis, his experience will differ *toto cælo* from my own. Second. Let the worst cases of rickets or tuberculosis be collected, and let inquiry be made as to whether the elder brothers or sisters of such patients show signs of hereditary syphilis. Here again I venture to predict that the result will be negative.

There are other facts by which I may support my view of the matter. *First.* Those who suffer very severely from inherited syphilis show no tendency either to tuberculosis or to rickets. Why, then, should those who suffer less? That the well-characterised cases of inherited taint are not tuberculous or rickety is, I think, already well proved. These patients, although suffering much, and from many maladies, show great tenacity of life, and if they do die it is usually of liver or kidney disease of a specific kind. I have myself seen some hundreds of such patients, and only in the rarest exceptions have I witnessed any tendency to the diseases mentioned. *Second.* The typical examples of rickets and tuberculosis show no indications of syphilitic taint. *Third.* You find tuberculosis and rickets, severally, very common in families where there is no suspicion of syphilis, and you can produce these diseases, almost at will, either in man or the lower animals. Not so with syphilis. Feed a patient how you like, derange his hygienic surroundings to any extent, you cannot produce either notched teeth or interstitial keratitis. These conditions stand as definitely in relation with inherited syphilis, and with no other cause, as do the iritis and coppery rash with the acquired disease.

Of course I do not assert that inherited taint confers any immunity from other diseases. If a patient be exposed to the influences which produce two different maladies, he may show the two in combination, and thus a syphilitic patient may easily be also rickety or tuberculous. I do, however, express strongly my present conviction that he will not suffer one whit more severely from the latter diseases because he is syphilitic, nor will he have been in the least predisposed to their attacks.

Thus, Sir, you will see that I am a sort of Fenian in this matter, and wish to claim Ireland for the Irish. Let syphilis have its own, and tuberculosis and rickets each their own, but let us not mix them all up together until good clinical warrant is given us. To do so on mere conjecture is to confuse our notions of etiology and confound our measures of treatment.

I am, &c.

JONATHAN HUTCHINSON.

4, Finsbury-circus, December 7.

THE RECENT DEATH OF AN UNDERGRADUATE AT OXFORD.

LETTER FROM THE CORONER FOR THE UNIVERSITY OF OXFORD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Permit me to say a few words on the case of the unfortunate undergraduate who has lately died at Oxford. Your remarks of last week, though kindly put, necessarily imply some degree of censure on myself.

The office which I hold is an exceptional one, having to do with none but members of the University, and is part of the exclusive jurisdiction of the University, secured by ancient Royal charters. I am able, therefore, to apply a slightly different rule to those which usually determine the expediency of holding inquests.

In this case I fail to see the advantage that would accrue to the University and the public by the decision of a jury of matriculated persons on the question whether the death was due to typhoid fever, or to the effects of a blow on the head received some three weeks before. The facts are patent. The person who struck the blow is unknown. An inquest could not be expected to aid in bringing the cowardly ruffian to

justice, nor to render the public peace more secure in future; on the other hand, while it would amuse idle curiosity, it would also inevitably stir up ill blood between the University and the city. If any good could have been expected to come of it, I would have insisted on holding an inquest. It was my duty to find out whether any evidence was forthcoming to connect the death with the blow. The Mayor, feeling that the city was interested in the case, took pains, I was informed, to do the same. But no evidence appeared, while from Dr. Jackson and Mr. Symonds I received positive assurances that the case was simply one of typhoid fever; and, as no one applied to me on behalf of the University or the city, or the college or friends of the deceased, I judged it right to accept those assurances, and to hold no inquest. A London Surgeon, who paid two brief visits to the patient, has expressed (with a readiness to accept responsibility which all must applaud) his dissent from the opinion of the Physician and Surgeons who saw the case from beginning to end. But perhaps, under the circumstances, I may be permitted to doubt whether a jury could do otherwise than side with those gentlemen, and to remark that if it did affirm that the blow was the cause of death, its decision would be perfectly useless. At all events, I decline to hold an inquest; and am, &c.

THE CORONER FOR THE UNIVERSITY OF OXFORD.

New University Club, Dec. 9.

SOUTH LONDON MEDICO-CHIRURGICAL SOCIETY.

LETTER FROM MESSRS. MOON AND CONSTABLE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In a list of officers of the South London Medico-Chirurgical Society published in the *Medical Times and Gazette* of last week, we beg to state that the names of Mr. Cooper Forster and Dr. Ray were inserted as Vice-Presidents in error.

We are, &c.

ROBERT C. MOON, JNO. H. C. CONSTABLE, } Hon. Secs.

December 11.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 26, 1867.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

DR. FULLER read a paper

ON EXCESS OF UREA IN THE URINE AS A GUIDE TO THE DIAGNOSIS AND TREATMENT OF CERTAIN FORMS OF DYSPEPSIA AND NERVOUSNESS.

The author began by stating that, in the year 1864, his attention was arrested by the existence of a great excess of urea in the urine of a patient whom he was treating for dyspepsia, accompanied by strongly marked nervous or hypochondriacal symptoms. The amount of urea in a given bulk of the urine was so great that, on the addition of nitric acid, crystals of nitrate of urea began to form in about twenty minutes, and ultimately filled the interior of the test-tube. This condition of the urine has never been described as a feature either of dyspepsia or of nervousness; and as, from its persistency in the case under observation, Dr. Fuller was inclined to regard it as an essential feature of the malady, he resolved in future to search for urea in the urine of every patient who presented a similar train of symptoms. The result has been that he has discovered an excess of urea in twenty-seven patients; twenty-six of whom were males, varying in age from twenty-three to fifty-four. After describing the general symptoms by which this condition of the urine was accompanied, Dr. Fuller gave the details of two well-marked cases; and stated that since his attention had been directed to the subject he has seldom been disappointed in his expectation of finding an excess of urea when the symptoms have led him to suspect its existence. Without exception the patients have been tolerably healthy in appearance, and often somewhat florid, though in some instances they have lost flesh slightly—indeed, their aspect has been so little indicative of disease, and their complaint of suffering has been so constant and so urgent, that any Practitioner who did not examine the urine for urea could scarcely fail to regard them as simply hypochondriacal. Their complaint has been of flatulence and acidity, extreme languor, restlessness at night, and distressing nervousness. Even a moderate amount of exertion has induced fatigue, so that they have abstained almost wholly from exercise. This last Dr. Fuller regarded as an important feature of the complaint, inasmuch as it bears upon the point which was next discussed—namely, the source of the excess of urea. He maintained, by reference to the history of the cases and to the marked indisposition to and incapacity for exertion, whether mental or bodily, manifested by sufferers from this complaint, that the urea is not formed, solely at least, during the destructive processes of assimilation as a consequence of the wear and tear of the tissues—the source whence urea is commonly supposed to be derived—but is due to the production of urea from the elements of the food during the primary processes of assimilation, probably as a consequence of perverted nervous action. In conclusion, Dr. Fuller mentioned several circumstances which induced him to believe that this affection is nearly allied to gout.

DR. ALTHAUS expressed his indebtedness to the author of the paper, but he objected to the title "dyspepsia." That, as well as nervousness, were only symptoms. The cases were not uncommon; they were merely rare because the urine was rarely examined. His attention was directed to it by a country Practitioner, who suffered from it, especially after overwork. He believed that its origin was to be sought in the nerve-centres, and was probably connected with the electrical currents in the cord shown to exist by Du Bois Reymond and Ranke. His treatment was, therefore, the application of the continuous electrical current to the spine.

DR. LEARED said that the disease was not new to him, for seven or eight years ago he began analysing urine by Liebig's method, but found it too troublesome, and abandoned it for one of his own. He devised a graduated tube, into which he put equal parts of urine and nitric acid, and was thus able to estimate the amount of urea in the specimen examined. He spoke of the supposed cause of the disease to one patient, an intelligent man, who diminished his quantity of meat, and finally gave it up altogether. Yet there was no diminution of the urea; so that it probably in all cases originated from metamorphosis of the tissues. He would, therefore, recommend remedies which arrested this, as coca and arsenic.

DR. ROUTH would point out one error. The test was fallacious, except the whole quantity of urine passed in twenty-four hours was examined. When competing for a prize, he had examined about 700 cases, and finally was obliged to resort to the plan of estimating the whole amount. By this method he found that some of the patients who appeared to pass urea in excess really did not pass enough, and in only about two of the whole number was there anything like an excess of urea. In these there was also excess of the urinary water.

DR. W. OGLE corroborated Dr. Fuller. After his attention was directed to it he had seen many cases in broken-down men. In his own secretion he had found what he believed to be excess until he estimated the whole amount, when he found that it was the water which was deficient The effervescence noticed might, he thought, depend on the oxidation of the colouring matters of the urine by the nitric acid and the consequent liberation of nitrous acid. As urea was excessively soluble in this last, it might follow that the whole might not appear as crystals.

DR. C. J. B. WILLIAMS thought the test by no means accurate, being a test of concentration rather than of amount. The disease had attracted his attention several times. In fact, it had not been entirely overlooked; both Prout and Willis referred to it. It was allied, he thought, to gout, and mostly occurred in broken-down people, especially where rest was deficient. He thought it was wrong to speak of the disease as one of the nerves; it was rather one of the whole frame. One remedy he had found very useful—viz., opium. The specific gravity of the urine was also diminished by quinine. As yet the disease was not fully investigated.

In reply, DR. FULLER stated that there were certain points in the paper rather mooted than proved. The title, he said, expressed what he wished it, being intended to distinguish the kind of dyspepsia referred to. He also pointed out that in six cases the whole amount of urine had been analysed with the results given in the paper. Dr. Leared's plan was not to be trusted any more that the tube was graduated, for crystals of nitrate of urea occupy very different bulks at different times—they must be weighed. He did not wish to make out that the disease had been entirely overlooked, but others had

spoken of the excess of urea without reference to the other symptoms. Thus, Dr. Ringer's case of azoturia was of a totally different cast. Even Prout did not exactly recognise it; he said the condition was rare, while he (Dr. Fuller) held it to be common. Dr. Prout also said that such urines were prone to decompose; in reality they were quite the opposite.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 3, 1867.

Mr. W. ADAMS, V.P., in the Chair.

MR. BRUCE read the report of a committee on a Cretified Tumour of the Back removed by Sir Wm. Fergusson, and exhibited at the last meeting by Dr. Trimen.

A report by Dr. Marcet upon Chylous Fluid derived from the Peritoneum, exhibited by Dr. Wilks, was also read.

Dr. BASTIAN exhibited specimens of

LUNG AND LIVER SHOWING THE EARLY STAGE OF FIBROID DEGENERATION.

He regarded the grey granulation as the type of tubercle; and the early stage of fibroid showed microscopic characters not distinguishable from those of grey granulation. Although the elements were alike, the arrangement was different in the two structures. They differed also in their origin, the one originating in tubercle, and the other being of much more local origin. Dr. Bastian would regard the fibroid change as one neither of inflammation nor degeneration, but rather a substitution of a new tissue functionally inert.

Mr. W. J. SMITH exhibited (1) certain microscopic specimens from a

STRUMOUS LYMPHATIC GLAND,

of the size of a hen's egg, which was removed by Mr. Gay from the axilla of a healthy man forty-eight years of age, showing increase of the fibrous tissue of the trabeculæ; substitution of large nucleated polymorphous cells for the proper corpuscles of the gland; diminution of vascularity, and fatty degeneration of the foreign cells and connective-tissue corpuscles of the trabeculæ. (2) Microscopic specimens from an Enlarged Tonsil, showing the new tissue to be composed of closely packed Malpighian follicles, in the interior, as well as upon the walls, of which could be seen an abundance of small bloodvessels. (3) Fat and hair from a non-congenital Epidermal Cyst, which was removed from the chin of a man forty years of age. The hairs, some of which were more than two inches long, resembled those of the beard, except in having, in many cases, a fringed appearance from loosening and partial separation of their cuticle.

Dr. WILSON FOX exhibited a

HEART FROM A CASE OF CYANOSIS

in a child aged four years, who up to nine months was in perfect health; but then, after an attack of bronchitis, the blueness came on. There was a considerable bulge of the chest-wall in the præcordial region, and a loud murmur. There was an open foramen ovale, and also a communication between the ventricles. The pulmonary artery was nearly closed. Dr. Fox thought the patent foramen was in the main a congenital affection, but the ventricular opening was partly due to inflammation.

Mr. MOORE exhibited, through the Secretary, a case of

RECURRENT CANCER OF THE BREAST,

after treatment by the injection of acetic acid. The breast had been removed, and nodules which showed themselves in the cicatrix were treated with the acid, and disappeared. On a recurrence of the disease Mr. Moore excised the whole cicatrix, which was exhibited, and referred to the Committee on Morbid Growths.

Mr. W. ADAMS brought forward a living specimen of

PROGRESSIVE PARALYSIS WITH HYPERTROPHY OF MUSCLE

in a boy, who was in an early stage of the disease. He alluded to a case of Dr. Hillier's, and to a second case under his own care, showing more advanced stages. The boy, though apparently muscular, was found to be weak in the legs, and was unable to rise from his seat or stand. The disease was progressive, and would probably end in death. The patient has a brother in a more advanced stage.

Dr. HILLIER said his patient was a boy between ten and eleven, who never walked well, and could not run. A tendency to draw up the heel had been observed; and now he cannot walk at all, and is becoming weak in the arms. The hypertrophy of muscle was not considerable.

Dr. MERYON said he had been the first to describe a form of local paralysis dependent upon rupture of the sarcolemma of muscle without fatty degeneration. The disease was of a centrifugal character, beginning at the thighs, and then affecting the legs, afterwards attacking the upper extremity. He referred to patients under his care, and whom he had exhibited to the Medical and Chirurgical Society.

Mr. LOCKHART CLARKE was strongly disposed to think that in these cases there was some central nervous lesion. He regarded the post-mortems of early cases as unsatisfactory, and, in the cases which he had examined, had found undoubted evidences of disintegration of the spinal cord. He considered the cases of Dr. Duchenne quite distinct from those of Dr. Meryon.

Dr. SCHULHOF remarked upon the difference of symptoms in the two diseases as regards pain.

Mr. NUNN made a few remarks upon the arterial supply of the affected limbs.

Dr. UVEDALE WEST narrated some particulars of the case of a child of his own who had suffered from the disease.

Sir DUNCAN GIBB exhibited specimens of

DISEASE OF THE SUPRA-RENAL CAPSULES

from a case of distinct bronzing of the skin of the face and neck of a man aged 47, ailing for two years, with no other cause to explain the great amount of constant exhaustion and debility present. He died of recent phthisis of the left lung on November 4, and at the autopsy, besides the lung disease, the supra-renal capsules were found involved. The left was an oblong solid body with no cavity; whilst the right was normal in shape, but friable, and its secretion altered in colour.

He likewise showed the drawing of a

TUMOUR SPRINGING FROM THE HORN OF THE HYOID BONE,

which caused suffocation. It was the size of a walnut, had grown in six months, from the left horn of the hyoid bone, pushing the epiglottis to the right side, and so compressing it as almost to obliterate the entrance into the larynx. The disease followed an ordinary sorethroat, and the voice was that of a person whose mouth was full of food; and he believed the disease to be malignant, although no autopsy was made.

Mr. CHRISTOPHER HEATH exhibited a

LARGE OSTEOSARCOMA OF THE LOWER JAW,

which he had removed from a patient who unfortunately sank from exhaustion on the sixth day. He called attention to the fact that the tumour had sprung from the interior of the bone, and was of a benign character, and that the inner lamella of the jaw was perfectly smooth and entire, as was generally the case in tumours of the kind. The vessels of the neck were never involved in such cases, and it was only to be regretted that the patient had not been submitted to an operation at an earlier date. The tumour weighed 4 lb. 6 oz., and was one of the largest of the kind. Mr. Heath showed drawings of the patient, and a wax model of the tumour.

Mr. FRANCIS MASON exhibited a specimen of

MUSCLE THAT HAD BEEN RUPTURED BY TETANIC SPASM.

The patient was a girl, aged 15, who was under Mr. Mason's care at the Westminster Hospital. About a month before her admission, on September 14, 1867, she received a blow on the occiput with a rolling-pin. This caused a wound which readily healed, but she afterwards sufferered a good deal from headache and earache. In three weeks she noticed a stiffness about the jaws, and subsequently had all the symptoms of tetanus. She remained under treatment for a fortnight, when she died. At the post-mortem examination a piece of hairpin, about an inch in length, was found under the scalp, in the situation of the blow above referred to. There was some subarachnoid effusion, but not to any great extent. The central parts of the brain, the corpus callosum, and fornix were much softened. Extensive patches of extravasated blood were found in the sheaths of the rectus muscles of the abdomen, and that on the left side was ruptured nearly across, one inch below the umbilicus. There was considerable congestion of the spinal muscles of the lumbar region. The spinal cord itself was softened.

Dr. KELLY showed a specimen of

DILATED FALLOPIAN TUBES,

from a woman who had not menstruated for some time. The tubes were closed at each extremity, and the cysts were of the size of an orange. The patient died of disease unconnected with the parts exhibited.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 18.

MR. HENRY SMITH, President.

MR. HAYNES WALTON exhibited

A LEG SUSPENDER,

devised by Mr. Henry Greenway, of Plymouth. He was much struck with it, and determined to give it a fair trial. He had put it to the test in his accident ward in St. Mary's Hospital, and he was now convinced that it was one of the best appliances of modern Surgery. The Fellows present were familiar with the swing devised by Mr. James Salter. Mr. Greenway had added a lateral and a diagonal movement. Mr. Walton exhibited the single or side leg suspender for one leg, and pointed out its movements and the several arrangements of adaptation for the leg and for the bed. Afterwards he showed the double leg-suspender for the treatment of two broken legs. Lastly, he exhibited Mr. Greenway's cradle for keeping the bed-clothes from an injured limb, which was so made as to fix under the mattress of the patient, so that there was no disturbance whatever from the pressure of the instrument.

Mr. PETER MARSHALL gave the details of five cases in which he had performed

OPERATIONS UNDER THE INFLUENCE OF THE BICHLORIDE OF METHYLENE.

These comprised ovariotomy, excision of half of the lower jaw, amputation of the foot, fistula, and chronic disease of the knee-joint. Previous to entering on the description of these cases, he paid a just tribute to Dr. Richardson's inventive genius, stating that he considered the discovery of the bichoride of methylene a triumph of scientific induction, and that it would prove a useful and safe addition to our anæsthetics. This anæsthetic, being much more volatile than chloroform, rises in vapour at 88°, but practically at 94°, and requires to be used with an apparatus which will permit its rapid diffusion together with the admission of air. M. Tavaux has completed an apparatus well suited for this purpose. The effects of the bichloride are much more rapid than those of chloroform; the second stage of narcotism is not well defined, but the patient passes rapidly from the first to the third. Two of the cases in which he had used the bichloride were followed by slight sickness, but in the others it acted kindly, quickly, and favourably. The time required to put the patient under its full influence was from three and a half to seven minutes, and the quantity used was from two to six drachms. The pulse in three cases ranged from 65 to 80; the others offered a marked contrast in this respect, for it ranged from 114 to 120; in one case there was squinting during its action.

Dr. SANSOM explained and demonstrated a

NEW ARRANGEMENT FOR EXHIBITING MICROSCOPIC SPECIMENS BY MEANS OF THE OXYHYDROGEN LIGHT.

He considered that no one could deny the value of the practical demonstration of microscopic appearances to many persons at the same time; it was useful both for direct instruction, and in many cases for investigation. It would be particularly useful in societies wherein pathological specimens were described and exhibited. Dr. Sansom had endeavoured to make his arrangement as simple as possible and adaptable to any microscope. A beam of oxyhydrogen light was projected through a cylinder containing—(1) a stratum of water; (2) a condensing lens; (3) the specimen to be demonstrated; (4) the lenses and tube of a microscope open; (5) a screen made of finely woven paper. The specimens which were shown were vividly seen in their natural colour. The whole apparatus had been carefully made by Mr. Millard, optician, of 93, Upper-street, N.

Dr. ALTHAUS then read a paper on the

TREATMENT OF TUMOURS BY ELECTROLYSIS.

The author introduced his subject by stating that, since he had first recommended this plan of treating tumours, a sufficient amount of experience had accumulated to show that we possess in the electrolytic treatment a valuable mode of dealing with certain kinds of tumours, to which no other operative proceedings are applicable, and also for such cases where, although other Surgical operations might be equally suitable for the disease, yet the patient's dread of more formidable measures was such as often to induce him to bear the disease rather than seek the remedy. He then stated the principles upon which this mode of treatment was based, and which consisted in making use, not of the calorific or heating effects of the continuous galvanic current, which had long been used in Surgery, being well known under the name of the galvanic cautery; but, on the contrary, in utilising the property possessed by the same galvanic current of decomposing all chemical compounds, and thus gradually destroying all organised tissues which might be brought within its circuit. He laid chief stress on the necessity of using merely the negative pole for the destruction of tumours, giving as the reason for this that the negative pole was not changed by the nitrogen and free alkali developed at it, but always retained its pure and bright metallic condition, while the positive pole, where oxygen, chlorine, and acids were developed, was at once oxidised and chlorinated, and from a metal changed into a metallic salt, as no metal whatever could resist the effects of oxygen and chlorine in the nascent state. If we were, therefore, to use the positive pole, we would introduce salts of iron, copper, silver, gold, or of any other metals used as conductors, into the depth of the tissues—that is to say, irritant foreign bodies, which experience had shown to be liable to cause inflammation, suppuration, and other undesirable Surgical complications. The author then gave a demonstration of the effects of both poles separately on animal structures, and explained the manner in which the electrolytic treatment acted. He then showed the instruments used by him, and made some remarks on the value of the ether spray, allowing an easy introduction of the needles into the tumour. The application of the galvanism itself was almost entirely painless if certain precautions were used. Dr. Althaus then gave an account of the cases treated by him up to the present time, which amounted to sixty-three, amongst which were fifty-two non-malignant, and eleven of the malignant kind. The former were cases of nævus, bronchocele, sebaceous tumours, ecphyma mollusciforme, kelis, lipoma, neuroma, cysts, and glandular tumours. The results of the treatment were that thirty-two cases were cured, twenty-five improved, and in six there was no result, or the result was not known. In malignant disease, the results were far less favourable, as in only two out of eleven cases was the tumour removed. The author thought, however, that perhaps, in course of time, a more continuous application of the electrolytic process might be discovered, by means of which it would become possible to starve out even cancerous growths. Dr. Althaus concluded his paper by some remarks on the mode of procedure, the length of time necessary for the application, and the advantages which he believed to be inherent to the method he had recommended.

A discussion ensued in which Dr. Day, Mr. De Méric, Dr. Sansom, Dr. Morell Mackenzie, Dr. Camps, and Dr. Simms took part.

OBITUARY.

M. FLOURENS.

THE great scientific men of the preceding generation seem all to be hastening away. This very year Trousseau, Velpeau, and Rayer—men whose names had become familiar as household words—have been successively removed from amongst us; in England, one of the most illustrious philosophers of the age—Michael Faraday—has also dropped out of the ranks; and now the grave has closed upon a man who, whatever our opinion of his merits may be, has undoubtedly filled a great position, and exercised a powerful influence on the biological sciences.

Flourens was born in 1791 at Béziers, a small town in the South of France. His talents were so precocious, that, having entered his name as a Medical student at the Faculty of Montpellier at the age of 16, he took his Doctor's degree at the age of 19—a case hitherto without a parallel in the history of studious youth.

While at Montpellier he made the acquaintance of the illustrious botanist Augustin Pyrame de Candolle, the author of the "Prodromus Systematis Regni Vegetabilis," who was the Professor of Botany at the Faculty of Medicine. De Candolle, who had been struck with the brilliant capacities of the young student, sent him to Paris, and introduced him to Geoffroy de St. Hilaire. The friendship of this eminent naturalist soon procured him a situation at the Museum (*alias* Jardin des Plantes), and gave him a still greater advantage by introducing him to Baron Cuvier, whose good graces he speedily

acquired, and retained till the end. Through the support of this all-powerful patron, Flourens, who had already commenced his researches on the nervous system, was nominated a member of the Academy of Sciences in 1827. He was soon afterwards appointed Professor of Comparative Physiology at the Museum; a few years later, he obtained a chair at the College of France; and, lastly, he became a perpetual secretary to the Academy of Sciences, a position which places him by the side of Arago,(a) and gave him commanding influence in the scientific body. Nor did his honours stop here. In 1840, he was elected a member of the French Academy, his competitor being M. Victor Hugo. It must be confessed that in literary fame, at least, the *unsuccessful* candidate on that occasion has far outstripped his rival. But Flourens was an easy and agreeable writer, and as it is customary for the literary Academy to have at least one member from its scientific sister, his nomination was fairly good.

Flourens sat for some time in the Chamber of Deputies, under Louis-Philippe, and after sitting for some years as a silent supporter of the Ministry, he was ultimately raised to the peerage, an honour which has never been bestowed before or after him upon any Medical man, and which was held, in fact, to be inconsistent with the practice of any profession.

After the revolution of 1848 he retired into private life, and was chiefly occupied in writing books of a semi-literary character, and vindicating his scientific labours from the strenuous attacks which were made against them. Of late the declining state of his health had compelled him to retire from Paris, and live altogether in the country.

The principal researches of Flourens were connected with the nervous system, and are sufficiently known to require little more than a brief recapitulation. He directed his attention to the properties of the nervous centres, and endeavoured to determine the functions of the different regions of the brain. His method, which he extended to all branches of physiology, consisted in removing or destroying certain parts, in order to ascertain the irregularities thus produced—a system which, as it is not altogether new, is certainly not altogether true. Modern physiology has in general resorted to less brutal and more ingenious methods of observing vital phenomena. The most prominent result of Flourens' experiments is the well-known effect produced by destroying one of the lateral lobes of the cerebellum, which causes animals to turn round instead of moving straight forward—a result which led Flourens to describe the cerebellum as an organ of motion, producing an impulse in each of its component parts, which, when not counterbalanced by an equivalent power on the opposite side, causes the animal to move backwards, forwards, or sideways, according to the nature of the injury sustained. The interpretation of this fact is now widely different from that given by Flourens himself; the importance of the fact itself remains, however, unimpaired. Flourens also attempted to fix upon the precise spot in the medulla oblongata in which the slightest injury causes instant death. The result of his experiments on this and other points may be seen in his work on the brain, a book in which the reader will find little else to repay him for his trouble.

The growth of bone was also one of Flourens' principal subjects of inquiry. He took up the views of Duhamel, who maintained that bone was produced by the periosteum, like wood by the cambium of trees, and he succeeded in giving favour to an idea which, if not perfectly true, comes certainly nearer the truth than the opinions which formerly prevailed. The practical applications of this theory to operative Surgery, the regeneration of lost bone by the preservation of the periosteum, are subjects too well known to require any particular notice.

It must be confessed that in all the labours of Flourens, we meet with little of that originality which is the true characteristic of a master-mind. Most of his views are mere adaptations of things done long before him, dressed up in a new style, and exhibited in a more attractive shape. Far different, however, was Flourens' own estimate of his labours. That bump of self-esteem, which is so seldom deficient in the French cranium, had acquired an exorbitant development in his skull "While I was prosecuting my admirable researches on the brain," he would say, "another physiologist was making some discoveries of minor importance, which, however, have been of some use to the progress of science—I allude to Charles Bell" In fact, Flourens was convinced, as he told his friends, that there had only existed three real physiologists since the creation of the world—viz., Galen, Haller, and himself. It may be doubted whether posterity will confirm his judgment; but in the course of his life the imperturbable assurance with which he informed everybody that he was one of the greatest men who ever existed, must have contributed in some measure to his rapid and extraordinary advancement. When a man is always prepared to sound his own praise, he generally finds some listeners to believe him.

As a writer, M. Flourens was certainly one of the most pleasing *vulgarisers* of science—one of those who know best how to place knowledge in the most attractive light. He was unrivalled as a scientific biographer, and his numerous *éloges* are a sufficient proof of this. One of his most amusing works is a little book on "Human Longevity," in which he attempts to establish that the natural duration of man's life is 120 years, and that we are ourselves to blame if the period has been unduly shortened. Nor is it impossible, he thinks, to restore the proper equilibrium; so that a man whose life has been regularly directed would only just enter the perfect state at 80. What a delightful prospect for our youths of 70!

Flourens (to speak his own language) was prematurely snatched away from his friends at the early age of 75. He had for some years been suffering from paralysis of the brain; and the slow progress of that incurable disease had of late almost entirely extinguished his brilliant intellect. He leaves two sons, one of whom has lately played a conspicuous part in the Cretan insurrection.

(a) There are two perpetual secretaries at the Academy of Sciences.

RE STATHAM DEFENCE FUND.

At a meeting of the friends and sympathisers of Mr. Statham held at Mr. Edwin Saunders's, 13a, George-street, Hanover-square, on Monday, December 9, Mr. Samuel Cartwright in the chair, an Executive Committee was nominated to organise a subscription to defray Mr. Statham's expenses, consisting of the following gentlemen:—Dr. Richardson, Dr. Cholmeley, Mr. Samuel Cartwright, Mr. W. A. Harrison, Mr. Edwin Saunders, and Mr. Charles James Fox.

Sums already received or promised.

	£	s.	d.		£	s.	d.
Wm. Adams, Esq.	2	2	0	"The Lancet" (per Dr. Wakley)	5	5	0
Anonymous	5	5	0	FrancisM'Clean, Esq.	1	1	0
Messrs. Armstrong and Son	2	2	0	Dr. MorellMackenzie	1	1	0
Richd. Barwell, Esq.	1	1	0	Dr. Meadows	1	1	0
*Baker Brown, Esq.	3	3	0	F. W. Mitchell, Esq.	2	2	0
J. D. Bush, Esq.	0	10	6	W. D. Mitchell, Esq.	1	1	0
Sam Cartwright, Esq.	2	2	0	Henry Moon, Esq.	1	1	0
Dr. Cholmeley	2	2	0	J. R. Mummery, Esq.	2	2	0
*J. T. Clover, Esq.	2	2	0	H. Potter, Esq.	2	2	0
Alfred Colman, Esq.	1	1	0	JamesRobertson, Esq.	1	1	0
Dr. Cursham	1	1	0	Arnold Rogers, Esq.	1	1	0
C. De Morgan, Esq.	1	1	0	Charles Rogers, Esq.	1	1	0
Dr. Donbleday	2	2	0	Joseph Rogers, Esq.	0	10	6
Sir Wm. Fergusson	2	2	0	Samuel Rymer, Esq.	2	2	0
Charles James Fox	2	2	0	Hyde Salter, Esq.	2	2	0
F. J. Gant, Esq.	1	1	0	EdwinSaunders, Esq.	5	5	0
Dr. Hardinge	2	2	0	Josiah Saunders, Esq.	2	2	0
Cæsar Hawkins, Esq.	3	3	0	B. Shillitoe, Esq.	2	2	0
Christ. Heath, Esq.	1	1	0	Joseph Steele, Esq.	1	1	0
D. D. Hepburn, Esq.	1	1	0	Thos. C. Vidler, Esq.	1	1	0
E. C. Hulme, Esq.	1	1	0	Dr. F. C. Webb	1	1	0
W. Hunt, Esq.	1	1	0	Hermann Weber, Esq.	2	2	0
T. Carr Jackson, Esq.	2	2	0	J. S. Wells, Esq.	1	1	0
Dr. Jephson	1	1	0	G. J. Williams, Esq.	1	1	0
F. C. Jones, Esq.	1	1	0	John Wood, Esq.	0	10	6
H.T.K.Kempton, Esq.	1	1	0	*W. R. Wood, Esq.	2	2	0
Arthur Leared, Esq.	1	1	0	A.J.Woodhouse, Esq.	2	2	0

Those marked * have promised further help if needed.

Charles James Fox, Hon. Sec.

Medical Charities.—Miss Jane Mary Tattingham, of Harley-street, recently deceased, has bequeathed the large sum of £26,000 in aid of the funds of charitable institutions, amongst which are £500 to the Asylum for Idiots; £500 to the Middlesex Hospital; £500 to the Convalescent Institution; £500 to the Royal Medical Benevolent College; and £300 to the Royal Orthopædic Hospital. This lady's bequests range from sums of £5000 to £200 to other institutions not strictly Medical.

NEW BOOKS, WITH SHORT CRITIQUES.

On Ringworm: its Pathology, Causes, and Treatment. By W. J. Smith, M.B, Surgeon to the City Hospital for Diseases of the Skin, and to the Islington Dispensary. London: Hardwicke. Pp. 75.

*** Mr. Smith here describes the various skin diseases commonly going by the name of ringworm. These he makes Scabies, Tinea tonsurans, Tinea decalvans, Tinea favosa, Herpes circinnatus, Herpes Iris, Roseola annulata, Erythema circinnatum, Lichen circumscriptus, Pityriasis, Eczema, Psoriasis circinnata.

Anatomy as Taught in the University of Edinburgh. An Introductory Lecture delivered by W. Turner, M.B., F.R.S.E., Professor of Anatomy in the University of Edinburgh.

*** We are glad to see Professor Turner's introductory lecture published in full detail, for it is pleasant to read as well as to listen to a history of the progress of Anatomy, told in a pleasant, cheerful manner, without the slightest shade of pedantry.

Inhalation: its Therapeutics and Practice. By J. Sollis Cohen, M.D. Philadelphia: Lindsay and Blakiston. Pp. 305.

*** One of the best treatises we have seen on the subject; but, like all others, it owes much of its value to Lewin's great work "Die Inhalations-Therapie."

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following candidates passed the recent M.D. Examination:—

*John Thomas Arlidge, B.A., King's College; *Stephen Wootton Bushell, Guy's Hospital; Henry Carnley, Hull and East Riding; Thomas Marsden Edwards, Andersonian Institution; Henry Isaac Fotherby, Guy's Hospital; Ralph Gooding, B.A., King's College; George Wallington Grabham, St. Thomas's Hospital; John Pearson Hughes, University College; Charles Kelly (gold medal), King's College; Henry Colley March, St. Thomas's Hospital; *Frederick Barham Nunneley, University College; John Jones Phillips, Guy's Hospital; George Henry Savage, Guy's Hospital; *Thomas Clave Shaw, B.A., King's College; Paul Henry Stokoe, B.A., Guy's Hospital; *John Williams, University College.

* Obtained marks qualifying for gold medal.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 5, 1867:—

John Rogerson, Aberdeen-terrace, Grove-road, Bow, E.; Thomas Charles Howell Spencer, Wokingham, Berkshire; Francis Ewbank, Ryde, Isle of Wight; Thomas Lettis, Argyle-street, King's-cross; Thomas Fawcett, King-street, Oldham; Edgar Spry Byass, Cuckfield, Sussex.

The following gentlemen also on the same day passed their First Examination:—

John Augustus T. Cartwright, King's College, London; William Lake Roberts, King's College, London.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BASTIAN, H. C., M.B., etc, has been appointed Professor of Pathological Anatomy and Assistant-Physician to University College Hospital.

BRUCE, A., M.S. Lond., F.R.C.S., has been appointed Assistant-Surgeon to the Westminster Hospital, vice Mr. Henry Power, resigned.

HARRIS, H., L.S.A., has been appointed Resident Medical Officer to the Royal Hospital for Diseases of the Chest, City-road.

TANNAHILL, R. D., M.D., F.F.P.S.G., has been elected Physician-Accoucheur to the Glasgow Lying-in Hospital.

WILLIAMS, T. WATKIN, has been appointed Surgeon to the Birmingham Orthopædic Hospital.

WILSON, J. G., M.D., F.R.S.E., Lecturer on Midwifery in Anderson's University, has been elected Physician-Accoucheur to the Glasgow Lying-in Hospital.

BIRTHS.

BAILLIE.—On October 15, at Bhagulpore, India, the wife of N. B. Baillie, Esq., Bengal Medical Service, of a son.

CHAPLIN.—On November 12, at Jerusalem, the wife of T. Chaplin, M.D., of a daughter.

CRAVEN.—On December 2, at 14, Albion-street, Hull, the wife of R. M. Craven, M.R.C.S., of a daughter.

CULLEN.—On December 5, at Avranches, France, the wife of Dr. P. Cullen, Bengal Army, of a son.

GANE.—On October 31, at Surat, India, the wife of H. J. Gane, Civil Surgeon, of a son.

GIBBONS.—On October 20, at Secunderabad, India, the wife of J. Gibbons, Surgeon, Royal Artillery, of a daughter.

HOCHEE.—On December 7, at East-end, Finchley, the wife of J. Hochee, M.R.C.S.E., of a daughter.

MARSHALL.—On December 5, at Holly House, Mortlake, the wife of W. Marshall, M.D., of a daughter.

MARTIN.—On December 4, at 3, Strand-terrace, Walmer, the wife of H. A. Martin, M.D., Assistant-Surgeon 6th Depot Battalion, of a son.

MARRIAGE.

SOUBEIRAN—MOLESWORTH.—On November 27, at St. Peter's, Eaton-square, J. L. Soubeiran, M.D., Paris, to Marion, widow of the late R. S. Molesworth, Lieutenant Royal Marine Light Infantry. No cards.

DEATH.

HAWKINS, H. M., M.D., M.R.C.S., L.S.A., at 20, St. Mary's-road, Peckham, on December 10, aged 27.

VACANCIES.

BIRMINGHAM LYING-IN HOSPITAL.—Resident Surgeon.

BROMPTON HOSPITAL.—Resident Clinical Assistants.

NORTH DEVON INFIRMARY.—House-Surgeon.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon.

ST. GEORGE'S, HANOVER-SQUARE, DISPENSARY.—Physician-Accoucheur.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Brixworth Union.—Dr. Pauli has resigned the Seventh District; area 6836; population 19·5; salary £40 per annum.

Wigan Union.—Mr. C. S. Hilton has resigned the Upholland District; area 7296; population 6982; salary £40 per annum.

APPOINTMENTS.

Chertsey Union.—Edwd. Kough, M.B., M.C., to the Windlesham District.

Llandilofawr Union.—Evan Jenkins, L.R.C.P. and S. Edin., L.S.A., to the North District.

Tiverton Union.—Henry M. Body, M.R.C.S.E., L.S.A., to the Thowerton District.

Uxbridge Union.—Robert King, M.R.C.S.E., L.S.A., to the Uxbridge District; Wm. H. Vipan, M.R.C.S.E., L.S.A., to the Hillingdon District.

MR. BAXTER LANGLEY, Medical agent, late of the Reform League, has addressed a meeting at Greenwich with a view to offering himself as a candidate to represent the borough in the Radical interest.

MESSRS. LONGMAN have in preparation a "Memoir of the late Professor Faraday." A short sketch of it by the Rev. S. Martin has already appeared.

THE first volume of the "Catalogue of Scientific Papers," which has been for some years in preparation under a committee of members of the Royal Society, is now completed. It extends down to CL, and will be followed by the other volumes as rapidly as they can be printed and issued.

THE *London Student*, a new magazine, will appear with the new year, as the organ of the students of King's College and University College.

THE BARLEY BREE.—Mr. Bass stated, on a recent occasion, that the returns of the firm of Bass and Co., brewers, were probably the largest in the world, exceeding £1,700,000 per annum.

ERUPTION OF COAL.—According to the *Leeds Mercury* a quantity of coal, estimated at 1000 tons, has been cast up by the sea upon the sands between West Hartlepool and Seaton Carew.

GUY'S HOSPITAL.—At a general court of the Governors of this institution held this week, Mr. John Gurney Hoare, of Lombard-street, was unanimously elected President of the Hospital, in the place of the Right Hon. Sir Laurence Peel, who has resigned the office.

INFANTICIDE.—In drawing off the water in the Regent's-park on Thursday last week, the bodies of three children, recently dead, were found in the mud.

THE Social Science Association have accepted an invitation from the Mayor and Town Council of Birmingham to hold their next annual congress in that town.

COMMITTAL OF A SURGEON FOR INFRINGEMENT OF THE LUNACY ACTS.—Mr. Shaw, of the Firs, near Elstree, Hertfordshire, was committed by Mr. Vaughan, at Bow-street, on Friday, December 6, for infringing the law by receiving a lunatic patient without the licence of the Commissioners. The trial will take place at Hertford. The magistrate accepted Mr. Shaw's own recognisances to appear.

THE Liverpool papers notice in terms of much regret the death of Miss Mary Wainwright, a lady who had for many years devoted herself to the alleviation of the distresses of the blind poor. She was the sister of the late Mr. T. W. Wainwright, who lost his life some years ago from a fever caught in the discharge of his Medical duties.

ODONTOLOGICAL SOCIETY.—At the ordinary monthly meeting of this Society, the President, G. A. Ibbetson, Esq., in the chair, Dr. Murie, Prosector at the Zoological Gardens, read a paper upon a case "where disease has ensued in the alveolus of a rhinoceros from the presence of a foreign body, and a case of diseased bone and tooth structure in a bear."

THE ANATOMY OF THE ORNITHORHYNCHUS has been very minutely described, especially the anatomy of the limbs, by M. Alix in a paper read at a recent meeting of the Société Philomathique of Paris.

University College, London.—The following lectures are to be delivered at University College in aid of the fund for erecting the south wing of the College. December 10: Professor J. R. Seely, M.A., "Milton's Political Opinions." January 14: Goldwin Smith, M.A., "The Last Republicans of Rome." February 11: Professor Williamson, F.R.S., "Experimental Science in relation to General Education." March 10: George E. Street, Esq., "The Connexion of Architecture and Painting." May 12: Sir John Lubbock, F.R.S., "Savages, and the Primitive Condition of Man." June 9: Professor Masson, M.A., "What we know of Shakespeare personally." The lectures will commence at 8.30 P.M.

Testimonial.—At a public dinner given in honour of John Orgill, Esq., Surgeon, of Stranraer, at the Town-hall, on Wednesday, November 27, that gentleman was presented with a gold watch and a purse of 300 sovereigns. The meeting was largely attended by Mr. Orgill's patients and friends, assembled to testify their appreciation of his services, both as a Medical man and a citizen, to the town and neighbourhood of Stranraer. The watch bore the inscription: "Presented to John Orgill, Esq., Surgeon, Stranraer, with three hundred sovereigns, by a large number of his friends and patients. 1867."

Sumptuous Living.—The Hexham Board of Guardians have rejected, by a majority of twenty-six to fourteen, a memorial from the Parochial Medical Officers, praying for an increase of their salaries. In one district, that of Wylam, with a population of about 8000, the Medical officer received a salary of £12 with £2 extra fees. One of the guardians, Mr. John Johnson, in opposing the memorial, described the Medical officers as gentlemen "who fared sumptuously every day!"

The Maine Liquor Law, which so many enthusiastic teetotalers desired to introduce into this country, has come to grief even in the United States. A committee was recently appointed by the Government to receive the popular evidence on the subject, and it is said that nearly all the men of science appeared on the side of alcohol; among others, Professor Agassiz and Professor Oliver Wendell Holmes, who unites the two distinctions of *littérateur* and anatomist. The result of this plebiscitum has been to pronounce the Maine law a failure.

Physiological Effects of Santonine.—According to the recent inquiries of M. Pelikan, the celebrated toxicologist of St. Petersburg, this substance possesses other properties than those usually attributed to it. M. Pelikan states these conclusions:—(1) Santonine produces a sort of paralysis, accompanied by rigidity of the muscles. (2) Its effects are produced in manner analogous to the mode of action of atropine and physostigmine. (3) It entirely destroys the irritability of muscles, rendering them completely rigid. (4) Its therapeutical properties deserve to be more fully inquired into.

Death from the Explosion of Hydrogen.—A young woman was killed at Greenwich on the 16th ultimo by the explosion of a vessel of hydrogen gas, which her father, a plumber and working chemist, was manufacturing for the lime light to be used at the Greenwich Theatre. From the evidence given at the inquest it appeared that her father was making the hydrogen from old iron and diluted sulphuric acid in a glass vessel when the accident occurred. He attributed the explosion to the low temperature of the preceding night and the presence of some old materials in the glass vessel. The broken glass inflicted mortal wounds in the throat.

Insuring the Innocents.—The statement made on Tuesday by a Medical man who attended at the Southwark Police-court, is one which gives rise to grave and painful reflections. This gentleman said that some time ago, a child a patient of his, died of disease of the heart, and he discovered shortly after that the nurse, who had no interest of relationship in the child, had insured its life for £20. Further than this, she had been paid the money. There was no reason in this particular case to suppose that the child had died from any but natural causes, but, nevertheless, the case is suggestive of very unpleasant ideas, and it will, no doubt, lead many a mother to make as minute inquiries as it is possible for her to carry out. It is somewhat revolting to think of a nurse having a really greater interest in a child's death than in its existence, and, to many persons, the fact of this unnatural interest would be sore temptation to evil-doing. In the case in point, we learn that the woman is a speculator in this peculiar business, for it is stated that she has invested the sum realised by her first venture in effecting further policies. We think, in all conscience, her name should be made public, in order to put a stop to her nefarious practice.

Cambridge Guardians and their Medical Officer.—Another dispute has arisen between the Cambridge Board of Guardians and their Medical officer, Dr. Ransom. It appears that, under the Consolidated Orders of the Poor-law Board, the initials of the Medical officer of a Union are required to be placed in the Medical Book to all cases where extra allowances to paupers are given. For years past it has been the custom at the Cambridge Union to employ a number of the aged paupers in various ways, the males, for such extra services, being allowed beer, and the females the same, and in some cases a glass of gin when up at night. In July last, Dr. Ransom declined longer to put his initials to such allowances, alleging as a reason that the Medical officer's book was swelled out, and that the charge ought to go elsewhere. The consequence was that the auditor surcharged the workhouse master with the amount, 3*l.* 19s. 11d., but the Guardians investigated the matter on Wednesday last, and an appeal has been made to the Poor-law Board upon the subject. The Guardians have ordered the allowances, undertaking to hold the master harmless.

A French Circumlocution Office.—The *Gazette Médicale de Strasbourg* describes the following process of obtaining a new book at the Faculty of that city:—The student, in order to prepare his thesis, may be in want of a book which does not exist in the library of the Faculty, a circumstance unfortunately of frequent occurrence. In order to obtain it, he addresses himself to a Professor, who transmits his request to the dean, who refers it to the rector, who writes to the minister, who naturally consults the inspector of Medical schools. If this official approves of the proposition, he transmits his opinion to the minister, who makes it known to the rector, who addresses the dean, who apprises the Professor, who informs the candidate that the work is about to be procured. If by chance the student has not time to wait, or if in the interval he has chosen some other subject, so much the worse for him or for science. And yet some of these young fellows are stupid enough not to admire the perfection of the working of this wheel-within-wheel system for the purpose of obtaining a book.

Dr. Kuhne on the Digestion of Proteids by the Pancreas.—1. Alkaline pancreatic infusion (the pancreas being removed from an animal during digestion) will not only digest proteids, but will digest, them at a rate and to an extent compared with which gastric digestion seems a slow and feeble process. It takes the collected ferment of a whole stomach days to digest half the amount of fibrin which the pancreas will digest in as many hours. 2. The pepton produced by the action of pancreas, the pancreas pepton, differs in no essential respects from gastric pepton. Its neutral solution (and it is exceedingly soluble in water) is highly diffusible, is not coagulated by heat, and gives the ordinary proteid reactions. It differs chiefly from gastric pepton in the precipitate with acetate of lead not being redissolved in an excess of the reagent, as is the case with the latter; but even this mark appears uncertain. It certainly agrees exactly neither with the *a*, *b*, nor *c* pepton of Meissner; but pepton prepared by Kühne from fibrin by means of pig's stomach exhibited the same want of agreement. 3. Perhaps the most striking fact in the experiment is the enormous production of tyrosin and leucin. Kühne even goes so far as to recommend pancreatic digestion as the most convenient method of preparing tyrosin. We seem to see here the reason why tyrosin and leucin are so often found in pancreas and sometimes in pancreatic juice; they arise from self-digestion. Thus a pancreas of a dog weighing 47 grms., minced and boiled immediately after removal from the body, gave a decoction containing a trace of pepton, not even an indication of tyrosin, and only minute quantities of leucin. Another pancreas of 53 grms. minced, and left to itself for three hours in 1 litre of water, gave abundance of pepton, much tyrosin, and still more leucin. That, however, in the experiment of fibrin digestion neither leucin nor tyrosin came from the pancreas alone is shown by the fact that the tyrosin obtained weighed nearly as much and the leucin more than twice as much as the dry weight of the pancreas used. According to these experiments, therefore, digestion (at least pancreatic digestion) is not a mere conversion of proteids into diffusible modifications, but a process of actual destructive decomposition. We learn from Thiry's analyses that pepton has about the same elementary composition as undigested proteid; and hence it is extremely unlikely that the change taking place in digestion consists in the splitting up of fibrin, for example, into pepton on the one hand, and into leucin, tyrosin, etc., on the other. A much more probable idea is the one that pepton is a stage of decomposition; that

the whole of the proteid undergoing digestion is changed first of all into pepton, which is afterwards split up into various non-proteid bodies.—*Journal of Anatomy and Physiology.*

BRAKENBURY NATURAL SCIENCE SCHOLARSHIP, BALLIOL COLLEGE, OXFORD.—This scholarship was adjudged to Mr. C. J. F. Yule, of Magdalen School. *Proxime accessit* Mr. W. W Fisher, of Worcester College. This scholarship is tenable for three years, and its annual value is £70. The subjoined examination papers were set in Mechanical Philosophy and Physics, by Professor H. J. S. Smith, F.R.S., Fellow of Balliol College; in Chemistry, by Sir B. C. Brodie, Bart.; in Physiology, by Dr. Rolleston, Linacre Professor of Anatomy and Physiology.

PHYSIOLOGY.—I.

1. What does a microscopic examination of the two fluids put before you enable you to predicate of the animals to which they respectively belonged?
2. Write a zoological description of the two animals placed before you.
3. What is meant by the "antithesis of morphology and teleology," and upon what facts is the principle that "special structural adaptations are ill fitted for bases in classification" founded?
4. Give an account of the various ways in which the laws of heat as acting upon water affect the distribution and preservation of animal life.
5. Give an account of the various structures concerned in the act of respiration as performed in the mammalian organism, and of the changes effected in the air and in the blood respectively when they are brought into relation with each other in the lungs.
6. What are the various theories which have been propounded to account for the fact of the mental impression of an object being single whilst vision is exercised by two eyes?
7. Give an account of the anatomical relations which subsist between the sensory ganglia at the base of the encephalon and the cerebral hemispheres.
8. What are the various views held as to the affinities of the Polynesian variety of the human species?

PHYSIOLOGY.—II.

1. Give an account of the object under the microscope.
2. Write a description of the bone put before you, stating the purposes it subserved during life, and the propositions it enables you to lay down as to the animal to which it belonged.
3. What do you know of the relations of interdependence which subsist between the animal and the vegetable world?
4. Upon what different principles have insects been classified?
5. Write a short account of the "vertebral theory."
6. Give an account of the anatomy and functions of arteries, veins, and capillaries.
7. What are the peculiarities of the fauna of South America?
8. Give an account of the organic remains which characterise the carboniferous formations, and of the physical conditions which are believed to have prevailed during those periods.

CHEMISTRY.—I.

1. Give the best method in each case, with which you are acquainted for the preparation of pure oxygen, nitrogen, carbonic oxide, marsh gas, and acetylene.
2. Explain the chemical theory of combustion, and prove oxygen to be a combustible substance.
3. By what simple experiments would you illustrate the nature of the chemical changes which take place when iron is dissolved in dilute sulphuric acid, and how should you ascertain the relative quantities of iron dissolved and hydrogen produced?
4. How should you detect the presence of nitric acid and of ammonia in rain water?
5. In what way should you proceed with the analytical examination of the precipitates produced by hydrochloric acid in a solution of protonitrate of mercury, nitrate of silver, and acetate of lead?
6. What is the formula of hydrated phosphorous acid? In what ways may this substance be procured, and what are the distinctive reactions by which it may be recognised?
7. How should you proceed to determine experimentally the density of carbonic oxide gas?
8. What would be the relative bulk of the oxygen procured by the decomposition of equal weights of oxide of mercury and of chlorate of potash?
9. Describe an arrangement for the liquefaction of chlorine gas.

CHEMISTRY.—II.

1. 1000 cubic centimetres of a certain gas, together with 1000 cubic centimetres of oxygen, are resolved into 1000 cubic centimetres of carbonic acid, and 1000 cubic centimetres of gaseous water. What is the formula of that substance?
2. 0·25 grm. of bromide of silver was obtained by the precipitation with nitrate of silver of 100 parts of a solution of hydrobromic acid. How much phosphorus would it be necessary to employ in the preparation of the hydrobromic acid contained in that solution?
{Br=80. Ag=108. P=31.]
3. Compare simply the chemical properties of water and of ammonia and give reasons for the formulæ you assign to those substances.
4. Express by means of equations the different stages in the process for the preparation of anhydrous acetic acid, and give an account of the properties of their substance.
5. Illustrate by examples the reaction of chlorine upon hydrocarbons.
6. What is meant in chemistry by the term "element?"
7. Under what circumstances does iodine become an "oxidising agent?" Illustrate your answer by examples.
8. How do you discriminate between arsenic and antimony?
9. What known chemical substances have the centesimal composition indicated by the following formulæ:—

$$CH_2O,\ C_2H_2O,\ C_2H_4O,\ C_2H_4.O_2,\ C_2H_3O_2?$$

MECHANICAL PHILOSOPHY AND PHYSICS.—I.

1. What are the characteristics of the solid, liquid, and gaseous conditions of matter?
2. State the theorem of the parallelogram of forces. If a weight of 1 cwt. is supported on a smooth plane inclined to the horizon at an angle of 30°, by a cord parallel to the plane, what is the pressure on the plane, and the tension of the cord?
3. Assuming the theorem of the parallelogram of forces, prove that if two parallel forces, acting at the extremities of a straight lever, are in equilibrium, their moments with respect to the fulcrum are equal.
4. Describe a good balance, stating the reason for each arrangement to which you refer. What is the method of double weighing, and what is its advantage?
5. What is the mass of a body? If, in Attwood's machine, the equal weights be each 1 lb., and the overweight be 1 oz., what will be the distance traversed, and the velocity acquired, by the falling weight in one second? (The masses of the pulley and cord, and friction, are to be neglected.)
6. What is mechanical work? A body weighing 5 lb. is moving with a velocity of 10 feet per second; what amount of mechanical work is it capable of effecting by virtue of its motion?
7. A ton of water just fills a cylindrical vessel of which the height and the diameter are the same. What is the whole pressure on the curved surface of the cylinder?
8. Water issues from a small orifice in the bottom of a vessel in which the water stands at a given height. With what velocity will the water issue, and how can this velocity be determined experimentally?
9. State the law connecting the volume of a gas of which the pressure is kept constant with its temperature. Describe a method by which the coefficient of expansion of atmospheric air may be determined.
10. How is the temperature ascertained at which water has its maximum density?
11. "Bodies when cold absorb the same rays which they give out when heated." What are the facts which prove this assertion?
12. What are the properties with respect to radiant heat of lamp black, rock salt, glass, alum, polished silver, solution of iodine in bisulphide of carbon?

MECHANICAL PHILOSOPHY AND PHYSICS.—II.

1. How is it proved that water is compressible?
2. How should you determine the specific gravity of a solid body heavier than water? The specific gravity of gold is 19·34, of silver 10·53. What is the percentage composition of an alloy of the two metals of which the specific gravity is 14·054?
3. In any undulatory movement, what is the relation connecting the length of a wave, the velocity of wave propagation, and the time of vibration of a single particle? How can the number of vibrations in a second, corresponding to any given musical note, be ascertained?
4. How should you determine the radius of a spherical mirror by means of its optical properties, (*a*) when it is concave, (*b*) when it is convex?
5. Describe, with as much minuteness as you can, any one of the methods by which the velocity of light has been determined.
6. What is fluorescence, and what explanation do you give of it?
7. Light falling on a transparent refracting surface is partly reflected and partly refracted. Explain, on the principles of the undulatory theory, the direction of the refracted rays; and state what is the condition as to polarisation of the reflected and refracted rays.
8. How is it shown that in an insulated and electrised conductor, the free electricity resides on the surface of the conductor?
9. Give an account of the action of the electrical condenser in accumulating electricity.
10. According to the law of Ohm the intensity of any electrical current is equal to the electromotive force divided by the resistance. State what are the units in terms of which each of these quantities is measured, and describe experiments by which the law is verified.
11. What is the hypothesis of Ampère as to the constitution of a magnet? State the facts which give probability to this hypothesis.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

The Forensic and Medical Methods.—It appears from a communication which has been forwarded to us that Dr. Laycock's definition of the forensic method referred to in our leader of last week was not intended to apply to any of the parties mentioned in his letter besides the advocate in a cause. We are sorry we should have attributed to him views which he very naturally repudiates. We confess that there was much in the second paragraph of his letter which puzzled us. With the exception of the passage we quoted, it contained no definition of the *forensic* "method" which the writer accused us of adopting, and in the succeeding paragraph the "forensic method" is placed in antithesis to the scientific method appropriate to the duties of the Physician, "who has for his duty the discovery of truth, irrespective of consequences." While thus explaining the origin of our error and apologising for it, we must be permitted to suggest that the forensic method adopted by the legislator and by the judge in a cause, if not the same as that of the advocate, is the same as that adopted by the Physician, and that the two methods ought not to be placed in opposition to one another, both having for their object the discovery of truth by reference to facts and experience.

Dr. Corfe is thanked.

A. C J.—Apply to any Hospital Surgeon.

T. R. Simonds.—Both works have their merits. If you want nice figures, Moore's is the book.

Cannot have too much of a Good Thing.—Madame Frigard, the convicted murderess of Madame Mertens, has been delivered of twins.

Bibliopole.—The edition of the work mentioned is very rare: there is a copy in the library of the Royal Medical and Chirurgical Society. Janus Cornarius died in 1558; he was fifteen years employed in translating the work of the Greek Physicians.

We have received a copy of a teetotal journal called the *Alliance News*, published at Manchester, which contains a column of so-called Medical correspondence. To say nothing of the bad taste and ignorant prejudices displayed in the answers given to the real or supposed correspondents of this paper, we notice that certain Medical men are recommended by name, and their addresses given. These gentlemen are described "as well informed as to the Medical properties of alcohol, and reliable as Medical advisers." It may be that the editor has taken upon himself to insert this puff without consulting the wishes of the gentlemen whose names he publishes. If so, we trust that their attention will be early called to the matter, and that they will take measures to prevent the reappearance of their names under circumstances which might lead to the suspicion that they sanctioned this form of Medical advertising.

CÆSARIAN OR CÆSAREAN SECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Ought the word, when applied to the "section" of the pregnant womb, to be spelled Cæsarian or Cæsarean? In the absence of better information, and following the French (from whom we derived the word), as well as following the analogy of similar derivations, I plead for Cæsarian. Ambrose Paré calls it "Cæsarien," and that spelling has been kept up. To call it Cæsarean, with the accent on the penultimate, would imply a Greek derivation, as though the operation came from the city Cæsarea, whereas Cæsarian might be the same word as the adjective Cæsarianus.

I am, &c. VOX ET P.N.

P.S.—The word *cadastral* applied to a survey has puzzled some of your contemporaries. It is a combination of doomsday-book and ordnance map, intended to fix the sites of landed property, for the purpose of regulating assessments. It is derived from the Latin *capistratum*, a poll-tax, and has Spanish and Italian analogues *catastro*.

CHOLERA CONTAGION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On the second page of a paper by Dr. George Johnson, "On the Pathology and Treatment of Cholera," published in the *Medico-Chirurgical Transactions* of the current year, I find the following passage:—"Another instance in which the poison must have been conveyed through the air is afforded by the case of the two pilots who took the disease in consequence of having their open boat towed at a considerable distance astern of the steamship *England*, on board of which cholera was raging. The pilots were never on board the infected vessel, yet both had cholera," etc. Surely, at the moment when the pilots received the tow-rope they must have been almost, if not quite, in contact with the infected vessel, and the rope itself may have come fresh from the hands of a man affected with cholera. I am, &c. LANDSMAN.

COMMUNICATIONS have been received from—

Mr. JEAFFRESON; Dr. EDWARDS; Dr. BALL; Dr. HUGHLINGS JACKSON; Dr. CORFE; Mr. CHATTO; Mr. JONATHAN HUTCHINSON; Mr. SIMONDS; Dr. J. G. WILSON; Dr. KIOD; Mr. WILKINS; Messrs. JOHN SMITH AND CO.; Mr. WM. J. SMITH; Mr. ED. CHAPMAN; Mr. CARVER; Mr. COOPER FORSTER; A SURGEON IN THE MERCHANT SERVICE; Dr. LAYCOCK; Mr. MOORE; Mr. A. BRUCE; Mr. JOSEPH THOMPSON; Mr. G. STREET; Mr. C. J. FOX; Mr. CURGENVEN; A. C. J.; Mr. KEMP; Mr. J. H. HOOPER; Mr. LE NEVE FOSTER.

BOOKS RECEIVED—

Sanderson, on the Sphygmograph—Hanover Square, No. 2—Medical Mirror, No. 48—Argosy, No. 25—The City Diary for 1868—Hewitt, on the Diseases of Women, second edition—Tunstall, on the Bath Waters, fourth edition—Mackenzie, on the Climate of Sidmouth—Smith's Visiting List for 1868—The Medical Investigator, No. 51—Gazette Médicale—Tribune Médicale—Gazette des Hôpitaux—Mouvement Médical—L'Union Médicale—Oasis de l'Enfance, by Dr. Dercum—Photographs of Eminent Medical Men, No. 7, vol. 2—Howard on Gymnasts and Gymnastics—Report on the Health of the Parish of Lambeth—New York Medical Journal, No. 32.

NEWSPAPERS RECEIVED—

Times of India—Medical Press and Circular—Western Daily Mercury—Clerkenwell News—Surrey Times—Poor-law Chronicle.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 7, 1867.

BIRTHS.

Births of Boys, 1008; Girls, 951; Total, 1959.
Average of 10 corresponding weeks, 1857-66, 1864·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	786	802	1588
Average of the ten years 1857-66	709·5	703·9	1413·4
Average corrected to increased population..	..	..	1554
Deaths of people above 90	1	..	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	468,388	..	13	2	..	8	5	2	..
North ..	618,210	8	10	9	3	9	13	4	1
Central	378,058	1	3	1	1	4	0	1	..
East ..	571,158	5	5	7	1	14	12	5	..
South ..	773,175	2	10	13	4	13	15	1	..
Total ..	2,803,989	16	41	32	9	48	51	13	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·705 in.
Mean temperature	35·7
Highest point of thermometer	55·2
Lowest point of thermometer	26·1
Mean dew-point temperature	31·3
General direction of wind	Variable.
Whole amount of rain in the week	1·14

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 7, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Dec. 7.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Dec. 7.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	1959	1421	1588	55·2	26·1	35·7	1·14	115
Bristol (City) .	165572	35·3	92	74	188	56·0	24 3	36·3	0·55	56
Birmingham (Boro')	343948	43·9	263	167	193	55·4	24·6	34·1	0·84	85
Liverpool (Borough)	492439	96·4	361	285	325	53·7	28·6	36·3	1·07	103
Manchester (City) .	362823	80·9	234	205	†249	58·1	22·0	34·1	0·74	75
Salford (Borough) .	115018	22·2	77	58	64	54·0	22 0	33·8	0 68	99
Sheffield (Borough).	225199	9·9	..	119	115	55·0	23·0	33·5	0·85	86
Leeds (Borough) .	232428	10·8	176	118	109	..	..	..	..	..
Hull (Borough) .	106740	30·0	..	49	55	54·0	23·0	32·9	1·08	109
Newcstl-on-Tyne, &c.	124960	23·4	..	66	72	38·0	26·0	32·7	1·84	186
Edinburgh (City) .	176081	39·8	..	85	104	48·7	27·0	35·6	0·30	30
Glasgow (City) .	440979	87·1	321	257	280	..	..	..	..	..
Dublin (City and suburbs) .	319210	32·8	..	†157	152	50·1	25 4	34·1	0·53	54
Total of 13 large Towns . .	6187764	34·8	4031	3061	3394 Week ending Nov. 30.	56·0	22·0	34·5	0·90	91
Vienna (City) .	(1863) 560000	..	.	..	Nov. 30. 261	..	..	§ 30·6	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·705 in. The barometrical reading increased from 23·75 in. on Sunday, December 1, to 30·21 in. on Wednesday, December 4. The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 37·7°.

APPOINTMENTS FOR THE WEEK.

December 14. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

16. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. A. E. Sansom, "On Zymosis, with especial reference to Cholera."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. N. P. Burgh, Esq., C.E., "On the Principles that Govern the Future Development of the Marine Boiler, Engine, and Screw Propeller."

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. Curgenven, "On the Effects of Malaria in Paddington."

20. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture VI.

TURNING; DEFINITION: THE CONDITIONS WHICH DETERMINE THE NORMAL POSITION OF FŒTUS: CAUSES OF MALPOSITION: FREQUENCY OF CHANGE OF POSITION OF FŒTUS IN UTERO.

Turning.

If we were restricted to one operation in Midwifery as our sole resource, I think the choice must fall upon turning. Probably no other operation is capable of extricating patient and Practitioner from so many and so various difficulties. In almost every kind of difficult labour with a pelvis whose conjugate diameter exceeds three inches, it would be possible to deliver by turning with a reasonable prospect of safety to the mother, and in many instances with probable safety to the child. We might very greatly restrict craniotomy. We might dispense with the forceps; but neither forceps nor craniotomy will serve as a substitute for turning in its special applications. It is difficult, therefore, to exaggerate the importance of carrying to the utmost limit the perfection of this operation. Yet the text-books exhibit a very inadequate appreciation of the subject. Turning by the feet was once said, not inaptly, to be the master-stroke of the obstetric Practitioner. And still the operation was very imperfectly developed.

I propose to describe and illustrate with some fulness the conditions upon which mobility of the fœtus *in utero* depends, the various modes by which the fœtus may be made to change its position, and the applications of this knowledge to the practice of turning, embodying the teaching of Wigand, d'Outrepont, Radford, Simpson, d'Esterlé, Lazzati, Braxton Hicks, myself, and others.

Having regard to the various allied operations which it is convenient to class under a general description, I would define *Turning as including all those proceedings by which the position of the child is changed in order to produce one more favourable to delivery.*

There are three things which it is very desirable to know as much about as possible before proceeding to the study of turning as an obstetric operation—

1. What are the conditions which determine the normal position of the fœtus *in utero?*

2. What are the conditions which produce the frequent changes from the ordinary position?

3. What are the powers of Nature, or rather the methods employed by Nature, in dealing with unfavourable positions of the fœtus?

1.—*The Conditions that determine the Normal Position of the Fœtus in Utero.*

It would be idle to do more than glance at the fanciful ideas upon this subject that have obtained currency at various times, although most have an element of truth in them. Ambroise Paré believed that the head presented owing to the efforts made by the child to escape from the uterus. Even Harvey believed that the fœtus made its way into the world by its own independent exertions. Dubois endeavoured in a long argument to show that the fœtus has *instinctive power*, which determines it to take the head-position. Simpson, rightly concluding that the maintenance of normal position depends very much upon the life of the fœtus, observes that it has no power of motion except muscular motion, and infers that the fœtus adapts itself to the uterus by *reflex muscular movements* excited by impressions—as by contact with the uterus—upon its surface. Thus we come down by a curious scale of theories, in which the philosopher may trace the influence of contemporary physiological doctrines or knowledge. First, the fœtus is endowed with the high faculty of *volition;* then it falls to the lower faculty of *instinct;* and lastly, it is degraded to the lowest nervous function—that of *reflex* motion. I should be disposed to estimate at a still lower point the influence of the fœtus as an active agent in maintaining its position during pregnancy or labour. It is incontrovertibly true that the normal position of the fœtus and the course of labour are intimately dependent upon the life of the fœtus. But I think I am enabled to affirm from very close observation that a fœtus, if full grown and *only recently dead*—that is, for a few hours—may be nearly as well able to maintain its position and to conduce to a healthy labour as one that is alive. How is this? It depends simply upon the preservation of sufficient tone and resiliency in the spinal column and limbs to maintain the form and posture of the fœtus. Whilst alive or only recently dead, the spine is firmly supported in a slight curve, the limbs are flexed upon the trunk, the whole fœtus is packed into the shape of an egg, which is very nearly the shape of the cavity of the uterus. It has a long axis, represented by its spine. This long axis, being endowed with sufficient solidity, resembles a rod, rigid or only slightly elastic. It is a lever. Touched at either pole, the force is propagated to the opposite pole. If the head impinge upon one side of the uterus, the breech will be driven into contact with the opposite point of the uterus; head and breech will move simultaneously in opposite directions. In labour, when the uterus is open to admit of the passage of the fœtus, the propelling power applied to the breech is propagated throughout the entire length of the spine or long axis, so that the head, the end furthest from the direct force, is pushed along in the direction of least resistance, turning at those points where it receives the guiding impact of the walls of the canal.

When the fœtus has been some time dead, the elasticity and firmness of its spine are lost; flaccidity succeeds to tonicity. Force applied to one extremity is not propagated to the other extremity—or, at least, very imperfectly so; the long axis bends, doubles up like a rod of gutta-percha softened by heat. If, the fœtus in utero being in this state, pressure be applied to one side of the head, the head will simply move towards the opposite side of the uterus. And if labour be in progress, the propelling force applied to the breech will not be duly transmitted to the head, but will tend to double up the trunk, to make it settle down in a squash in the lower segment of the uterus or in the pelvis. The head—the cervical spine having lost its resiliency—will not take the rotation and extension turns. It will run into the pelvis like jelly into a mould. Or, at an earlier stage, the limbs, especially the arms, having lost their tonicity, drop or roll in any direction under the influence of gravity or of pressure; and hence may fall into the brim of the pelvis, constituting what are called transverse presentations. The influence of this law is clearly seen in the course of that process called "spontaneous expulsion," by which a dead child is expelled, a shoulder presenting.

Other factors besides the child have to be considered. Scanzoni correctly observes that the frequency of head-presentation is dependent on the operation of various causes. 1. There is the force of gravitation; 2. The form of the uterine cavity; 3. The form of the fœtus (to which must be added the properties I have described due to life or death); 4. The quantity of amniotic fluid; 5. The contractions of the uterus during pregnancy and the first stage of labour. In the early stages of pregnancy the embryo is so small relatively to the cavity containing it that it floats suspended in the liquor amnii. But about the middle of pregnancy the fœtus grows rapidly; it acquires form; and, at the same time, the uterus grows more in its longitudinal than in its transverse diameter. As soon, therefore, as the fœtus—an ovoid body—attains a size that approaches that of the capacity of the uterus, the walls of the uterus will impose upon the fœtus a vertical position. The fœtus has become too long to find room for its long diameter in the transverse diameter of the uterus. Mutual adaptation requires that the long diameters of fœtus and uterus shall coincide.

A condition not, to my knowledge, hitherto noticed, which has a powerful influence upon the determination of the child's position in utero, is the normal flattening of the uterus in the antero posterior direction. In the non-pregnant uterus, the cavity of the body—the true and only gestation-cavity—is a flat triangular space, the angles of which are the orifices of the Fallopian tubes and the os internum uteri. A similar triangular superficies is marked out on each half of the uterus, anterior and posterior. The anterior superficies lies flat against the posterior superficies, touching it as if the two were squeezed together. When pregnancy supervenes these surfaces are necessarily separated to form a cavity for the growth of the ovum. But the original form is never entirely lost. The cavity is always more con-

tracted from before backwards than from side to side. This is proved by direct observation if the fingers are introduced after abortion or the hand after labour at term. The uterine cavity is closed by the flattening of the anterior and posterior walls together. This takes place the moment the uterus contracts. If the finger or hand be in the uterus at the time, this is plainly felt. Now, this flattened form of the uterus is the reason why the fœtus takes a position with either its back or belly directed forwards. The fœtus is broader across the shoulders than from back to front, and therefore its transverse diameter is fitted to the transverse diameter of the uterus. There is a physiological design that dictates the downward position of the head. The fundus is the part designed for the implantation of the placenta, where it can grow undisturbed, and continue its function during the expulsion of the child. The lower part of the cavity is therefore left free for the development of the embryo. Why the back is commonly directed forwards to the mother's belly is this—The child's back is firm and convex; its head is also firm and convex behind. The anterior aspect of the child's body is plastic and concave, and therefore fits itself better to the firm convexity of the mother's spine. It is clear that the two solid convex spines of mother and child would naturally repel each other; and the child being movable, it is the child's back that recedes, turning forwards.

2.—*The Conditions which produce the frequent Changes in the Child's Position.*

Any considerable disturbance of the correlation of the factors which keep the fœtus in its due position of course favours malposition. The principal disturbing conditions may be stated as follows:—An *excess of liquor amnii* acts in two ways—first, it favours increased mobility of the fœtus; secondly, it tends to destroy the elliptical form of the uterus. The transverse diameter increasing in greater proportion than the longitudinal, the cavity becomes rounder. Hence the fœtus is no longer kept in a vertical position for want of the proper relation between its form and size and those of the uterus.

Obliquity of the uterus was considered by Deventer to be a main cause of mal-position. It is now very much discredited, but I am disposed to believe that it has, not seldom, a real influence. Dubois and Pajot showed that in 100 women 76 exhibited a marked lateral obliquity to the right, four to the left, and twenty an anterior obliquity. Wigand had shown that deviations of the uterus to the right and forwards were far the most frequent. The normal direction of the non-pregnant uterus is nearly that of the axis of the pelvic brim. As it grows during pregnancy, rising above the brim, the projecting sacro-vertebral angle and the curve of the lumbar column deflect its fundus to one or other side; and, if the abdominal walls be very thin and flaccid, the fundus will fall forwards. The tendency of these obliquities, if carried beyond ordinary measure, is to throw the axis of the uterus out of the axis of the pelvic brim, and to bring some other part than the vertex of the fœtus to present. The probability of this will be increased by the irregular contractions of the uterus likely to be excited by parts of the fœtus pressing unequally upon its walls. For example, in extreme lateral obliquity the breech may press strongly upon one side of the fundus; contraction taking place here, will drive the head farther off the brim on to the edge, where, if it finds a *point d'appui*, it will rotate on its transverse axis, producing forehead or face presentation, and favouring the descent of the shoulder. Wigand explains how a too loose and shifting relation of the uterus to the pelvis disposes to cross-birth. In this condition it is observed that the head is now fixed in one place, now in another, and now not felt at all.

He further(a) says that any obliquity of the uterus exceeding an angle of 25° is unfavourable; and that even a lesser obliquity, with excess of liquor amnii or a small child, is likely to cause the presenting head to be displaced, and to bring a shoulder into the brim, especially if strong pains or bearing-down efforts be made *early* in labour.

He explained that the os uteri might be brought over the centre of the brim by internal drawing upon the os, combined with external pressure upon the fundus in the opposite direction, thus putting in practice the principle of acting simultaneously upon the two poles of the uterus.

Deformity of the pelvis or lumbar vertebræ is often a powerful factor. The comparative frequency of transverse presentations in cases of deformed pelvis is certainly greater than where the pelvis is well formed. I think, however, that *slight* deformity has more influence in causing malposition than extreme degrees. In these latter, malpositions are rarely observed.

The attachment of the placenta to the lower segment of the uterus is, as Levret has clearly shown, a cause of malposition by forming a cushion or inclined plane, which tends to throw the fœtal head out of the pelvic axis across the brim. Hence the frequency of cross-birth and of funis-presentation in cases of partial placenta prævia. But there are numerous cases in which the placenta dips into the cervical zone, growing downwards from the posterior and lateral walls of the uterus, without leading to hæmorrhage, and thus not suspected to be cases of placenta prævia, which, nevertheless, form an inclined plane behind or on one side, and produce malposition.

Then there is the *influence of external forces*, as of pressure applied to the uterus through the abdominal walls. The dress of a woman at the end of pregnancy is a matter of no small moment. The pressure of a rigid busk of wood or steel upon the fundus of the uterus, modified by the various movements and postures of the body, may flatten in the fundus, thus reducing the longitudinal diameter of the uterus, or it will push the fundus to one side, causing obliquity. It will, at the same time, press directly upon the breech, and thus tend to give the fœtus an oblique position, throwing the head out of the pelvic axis. Pluriparæ should do the reverse of this. They should wear an abdominal belt, which supports the fundus of the uterus from below upwards.

Want of tone in the uterus, which implies inability to preserve its elliptical form, and a tendency to fall into rotundity, a form which obviously favours malposition.

Irregular or partial contractions of the uterus cause malposition. Naegele insisted upon this. He found that in some cases malposition was averted by allaying spasm.

The researches conducted by several German Physicians, amongst whom I may cite Credé, Hecker, and Valenta,(b) establish the fact that the fœtus changes its position with remarkable frequency. Valenta examined 363 multiparæ and 325 primiparæ in the latter months of pregnancy. He found that a change of position took place in 42 per cent. Change was more frequent in multiparæ, and in these in proportion to the number of previous pregnancies. Narrow pelves very frequently cause change of position. Circumvolutions of the cord, so often observed, are produced by changes of position, and hence bear evidence to the correctness of the proposition. It is interesting to observe that the general tendency of changes of position is towards those which are most propitious. Thus, cranial positions are least liable to change. Oblique positions are especially liable to change. These mostly pass into the long axis by spontaneous evolution. *Self-evolution is a very frequent resort of nature.* In some cases several changes of position have been observed in the same patient. The presentations are made out by external manipulations. Valenta thus describes his method of ascertaining a breech-position during pregnancy:—He lays his right hand flat on the fundus uteri, and then strikes the tips of the fingers as suddenly as possible towards the cavity of the uterus, against the part of the child lying at the fundus. By this manœuvre he has always succeeded in recognising the head, if lying at the fundus, by its peculiar hardness and evenness. He detects the head in oblique and cross positions in the same manner. P. Müller(c) relates a case in which within five days a complete version of the fœtus was effected six times.

Yet the fact of the "spontaneous evolution" of a living child, as described by Denman from actual observation, has been doubted!

(a) *Die Geburt des Menschen.* Berlin. 1820. Vol. ii. p. 137.

(b) *Monatsschr. f. Geburtsk.* 1866.

(c) *Ibid.* 1865.

The Deaths in London last week were greater than they have been in any week during the last eight months. This is, however, only what was anticipated by those acquainted with the relation of temperature to mortality—a relation which is expressed by a definite and unvarying law, and which can be calculated with exactitude from the thermometrical changes. The number of deaths was 1700, or 215 above the estimated number. The range of temperature 30° was terrible, the minimum being 21° and the maximum 51°.

Election of Baron Larrey.—Baron Larrey, a worthy son of an illustrious sire, has just been elected one of the ten *académiciens libres* of the Académie des Sciences, in the place of the late M. Civiale. The other candidates were M. Sichel and M. Lartet, and fifty-eight members took part in the election. M. Larrey was elected by forty-five votes.

ORIGINAL COMMUNICATIONS.

REMARKS ON THE

DISORDERLY MOVEMENTS OF CHOREA AND CONVULSION, AND ON LOCALISATION.

By J. HUGHLINGS JACKSON, M.D.,
Physician to the Hospital for the Epileptic and Paralysed, and Assistant-Physician to the London Hospital.

(Concluded from page 643.)

ADMITTING the above speculations, we see how it is that from local deterioration—not destruction—of nerve tissue there may be not a permanent, but an occasional exhibition of external symptoms. Still, as a certain *quantity* of nerve tissue is not doing *healthy* duty—there being probably a smaller *quantity* of force available for (let us say) "voluntary" movements betwixt the attacks—there should be *some* permanent weakness of the limbs, which spasm occasionally attacks.

Yet although, as already said, there is frequently even decided palsy of one side in cases of unilateral convulsions and unilateral irregular movements, there are cases in which there is no obvious palsy and cases of paroxysmal mania in which the mind is apparently clear betwixt the attacks, except shortly after the attack.(a)

There is no doubt that a large part of one cerebral hemisphere may be destroyed without any permanent mental defect. It is equally certain that a part of the corpus striatum may be destroyed without any permanent hemiplegia. But no one denies that the hemisphere is the chief seat of the mind, and that through the corpus striatum the rest of the nervous system acts on the limbs.

In incomplete hemiplegia—to limit the illustration to the arm—there is not palsy of part of the arm, but partial paralysis of the arm (*vide* infra). So it seems that each movement of the arm is represented in each part of the corpus striatum, or conversely that each part of the corpus striatum represents the movements of the limb as a whole. In complete hemiplegia the arm cannot be moved in any way—except by swinging it from the shoulder—and in incomplete hemiplegia the fault is not so much that some one or more motions cannot be performed at all, the rest of the arm being good, but that although all the movements are to be done, they are all badly done. And when the destruction of nerve tissue is slight in extent, there need be no permanent defect in any manner of movement. Applying this principle to the brain, we may understand how it is that there may be a large abscess in one cerebral hemisphere, and yet no obvious mental defect. Or to take, with arbitrariness, a special series of motor and sensory processes, we see how it happens that disease of the forepart of the anterior lobe, of the posterior lobe, and of the hemisphere above the lateral ventricle, need not produce any defect of the psychico-physical processes which constitute the phenomena of language. Just as in the arm-nervous-system there is a gradually increasing complexity from the delivery of nerves to muscles through interweaving of nerves in nerve-trunks to an interrelation so great in the corpus striatum, that damage to a small part of this organ weakens the whole of the limb, and yet destroys no single movement—so we may fairly infer that, continued from the corpus striatum, deeper in brain—further in mind—are still more complex arrangements of motor processes, reaching a minute degree of interrelation and a vast width of association with the complex *motives*—the sensation aspect of mind—of the hemisphere, and becoming at length so complete that a quantity of brain may be destroyed without any special mental defect resulting.

The foregoing does not imply that there is no localisation in any sense of the word, although it does imply that there is no localisation in the sense phrenologists suppose.(b)

We find now and then in hemiplegia that when there is a trifling degree of power in moving the upper arm and flexing the elbow, the power to move any one of the fingers may be absolutely lost. The movements of the hand—the most intelligent part of the limb—must be at once more represented, and more specially represented, than the coarser movements of the limb. For the same reason, I suppose, the arm suffers more and longer than the leg in hemiplegia. (There are some striking exceptions, which, in the few post-mortem examinations I have had on such cases, have been accounted for by the extension of the disease low down in the motor tract.) Then in unilateral convulsions the "aura" nearly always begins in the hand; sometimes, however, in the side of the face, and rarely in the leg. So the speculation is that, although each movement is everywhere represented, there are points where particular movements are specially represented.

Further, it will be observed that in the illustrations given above, the parts of the hemisphere destroyed (with conservation of mind) are distant from the corpus striatum. But when there is damage close to the corpus striatum,(c) we may find mental defects—as difficulty in "talking," in every sense of the word talk, inability to write, &c. Similarly, in damage low down in the arm-nervous-system, for instance, when the ulnar nerve is divided, there is a definite defect; but when a small part high up—in the corpus striatum—is damaged, there is no obvious permanent defect at all.

But it is not supposed, to take a special case, that the faculty of language,(d) in any sense of the term, resides solely close upon the cerebral side of the corpus striatum. The speculation I still hold as regards the localisation of speech is that the different degree of the symptoms produced depends on the different *quantity* of the brain damaged "round about the *highest part of the motor tract*, the corpus striatum—the point of emission of the orders of the 'will' to the muscles" (*Lancet*, November 26, 1864). I would now put it that the quantity of defect produced is proportionate to the quantity of nervous tissue injured, but that the defect varies inversely in quantity—to speak metaphorically—as the square of the distance of the disease from the corpus striatum. A "cubic inch" of damage close to the (left) corpus striatum would certainly produce some difficulty in talking and in writing, and it is equally certain that a cubic inch of damage to the fore-part of the anterior lobe need not (e) produce any obvious mental defect of any sort whatever. I think, too, it will be found that the defect increases in complexity and diminishes in speciality the further the disease is from the corpus striatum.(f)

Whilst we may localise the *damage* which makes a man speechless, we do not localise language. It will reside in the whole brain (or whole body), and, although the nervous arrangements for its most exterior manifestations lie close to the corpus striatum—possibly, for instance, largely in "Broca's convolution"—they will be continuous with the

(a) In regard to the above, and to the instances of coarse damage to the brain, it may be remarked that it is not essential to the argument to assume that there is absolutely no motor or me otal defect.

(b) The principle of localisation I have adopted seems to be the one which Herbert Spencer has put forward. He has given an illustration which is, I think, essentially the same as the one I have given in the text. Spencer says ("Principles of Psychology," p. 607):—"No physiologist who calmly considers the question in connexion with the general truths of his science can long resist the conviction that different parts of the cerebrum subserve different kinds of mental action. Localisation of function is the law of all organisation whatever: separateness of duty is universally accompanied with separateness of structure, and it would be marvellous were an exception to exist in the cerebral hemispheres." Again, p. 608:—"Just as there are aggregated together in a sciatic nerve a great number of nerve-fibres, each of which has a particular office referring to some one part of the leg, but all of which have for their joint duty the management of the leg as a whole; so, in any one region of the cerebrum, each nerve-fibre may be concluded to have some particular office, which, in common with the particular offices of thousands of nerve-fibres, is merged in some general office which that region of the cerebrum fulfils." The reader, however, is referred to the original, as these extracts give but an imperfect account of Mr. Spencer's views on localisation.

(c) How it happens that there are usually no mental defects when the damage is near to the right corpus striatum, is a difficulty to all inquirers.

(d) With hemiplegia of the right side there are all sorts of defect—we may view them as defects of either motion, language, or mind, according to our standpoint of thought—from the disorders of the lowest and most narrow (cultivated) anatomical possibilities ("organised experiences"), as of articulation through inability to utter right words, up to, as I think, what would be usually called incoherence. The last defect may be either a disorder in highly developed movements or in "motives" for movements, or in both.

(e) I say *need not*, as we know that changes (*e.g.* optic neuritis) sometimes result secondarily from "foreign bodies" in the hemisphere, and that sometimes they do not.

(f) Whilst there is evidence as to (1) the effects of large coarse damages near to, and far from, the corpus striatum, there is scarcely any as to the effect of slighter kinds of damage in intermediate positions. In other words, I have had autopsies (1) on patients who could not speak at all, and (2) on patients whose speech was good, but no definite cases showing the lesions allowing a large range of speech with confusion of words. It is clear that in these cases the pathological changes would be very slight, and probably widespread, and thus very hard to discover; yet, as they occur with one-sided palsy, it is almost certain that there is *some* disease in the region of the corpus striatum.

most complex and most widely related sensations and movements in every part of the brain.

So now, whilst we may understand that if a small part of the hemisphere distant from the corpus striatum be *destroyed*, there need be no *permanent* and continuous mental defect analogous to palsy of muscles, we may yet understand that if the part be *simply unstable*, there may be nearly continuous or *occasional* disorder of mind analogous to irregular movements or occasional spasm of muscles. For if a very small part of the corpus striatum be destroyed there will be no palsy, or no permanent palsy; but if a part of it be unstable, there must be more or less spasm of the whole of the arm, although chiefly of the muscles most represented in the unstable part.

There is the same difficulty in explaining the difference in he time of nearly *continuous* incoherence and *occasional* maniacal fury, even on the assumption that the increasing correspondence in time is another aspect of the increasing correspondence in complexity of movement. It may be that there is not only a failure of a part at a slight excitation of its then proper *special* motive (its "Will"), but a failure in general emotional states or in the commoner periodical changes of the body.

ON A CASE OF

EXTENSIVE LESION OF THE LEFT POSTERIOR FRONTAL CONVOLUTION OF THE CEREBRUM, WITHOUT APHASIA.

By J. H. SIMPSON, L.R.C.P. Lond.,
Senior Assistant Medical Officer to the Gloucester County Asylum.

WHILE it is still an undecided question whether the faculty of spoken language is located in any particular portion of the brain, and, if so, whether its special seat is the left posterior frontal convolution, anything bearing upon the pathology of the subject cannot fail to be of interest, as it is to the records of morbid anatomy (conjoined with the symptoms previously noticed) more than to any other methods of research that we must look for the ultimate elucidation of the problem.

The following brief notes of a case of extensive lesion of the convolution indicated, therefore seem worthy of recording, although, taken alone, the case is by no means destructive of the theory advocated by M. Broca and others, because (as is suggested by Dr. Ogle, in the last number of St. George's Hospital *Reports*) in this special instance it may have been on the right and not on the left side that the central organ of speech was situated.

W. D., male, aged 62 years, single, labourer, was admitted into the Gloucester County Asylum on February 16, 1857. History on Admission: He has been subject to epilepsy from early youth, but of late the fits have become more frequent and severe. His character has been that of a weak-minded, obstinate man, who, when irritated, was subject to violent paroxysms of passion, during which he would run his head against walls, or strike himself with anything he happened to have in his hand. He was also said to be dangerous to others. He never had an apoplectic seizure as far as can be ascertained, nor has he at any time suffered from loss of speech. During the ten years he was under observation at this Asylum the fits did not average more than four or five a month, but were severe in character. He had no brain symptoms beyond those ordinarily associated with epilepsy, no paralysis, and no impairment of speech. His conduct was variable. At times he employed himself on the farm, but he was extremely irritable, and, on the impulse of the moment, would commit some act of violence or destructiveness unless prevented. For the past twelve months his health had been giving way; each attack of epilepsy seemed to leave him feebler than before, and a few days before his death, which took place on November 12, 1867, he suffered from bronchitis and partial insensibility.

Aut psy twenty-eight hours post mortem.—Body: Fairly nourished; weight 131 lbs. Head: Calvaria thick and heavy; the cranium was unsymmetrical, being elongated in the left oblique diameter. Dura mater non-adherent and healthy. Arachnoid opaque throughout, but more particularly on the upper parts of both hemispheres. Pia mater normal. Brain substance: Grey matter somewhat atrophied, of firm consistence, but paler than normal. White matter also atrophied, and the interspaces and ventricles filled with serum. Both orbital divisions of the frontal lobes of the cerebrum were indented from undue prominence of the upper walls of the orbits. On the left side, and implicating the posterior frontal convolution, a large depression existed which appeared to be the remains of an apoplectic clot. It was of irregular shape, about an inch and three-quarters in its antero-posterior, and an inch and a half in its transverse diameters. It extended internally to within five lines of the olfactory bulb, and in front to within an inch of the anterior margin of the hemisphere. It was deepest in the centre, where it measured half an inch from the general line of the surface. The brain tissue was stained of a brownish-yellow colour, and there was considerable puckering, with induration round the margins of the depression. Microscopical examination showed distinct feathery crystals of hæmatoidin. The cortical substance was greatly thinned, being reduced to a mere line in the centre of the depression; and that, as well as the white matter, had a specific gravity higher than the same tissue in other situations. The island of Reil appeared healthy, and the other parts of the brain presented no great deviation from the normal standard. The cerebral arteries were slightly atheromatous. The following table shows the absolute and specific weights of different portions of the encephalon, etc.:—

Weight of the encephalon	42½ oz.
Bulk of water displaced by do.	41 ,,
Amount of serum collected	6 ,,
	Specific Gravity.
White matter of cerebrum	1·040
Indurated portions of do.	1·042
Grey matter of do.	1·038
Indurated portions of do.	1·039
White matter of cerebellum	1·040
Grey do. do.	1·036
Pons varolii	1·041
Medulla oblongata	1·041
Corpora striata	1·040
Optic thalami	1·040

Thorax: Heart and blood-vessels healthy; lungs studded with tubercle; mucous membrane of bronchi congested, and the tubes filled with frothy mucus. Abdomen: Liver, spleen, stomach, and intestines healthy; kidneys in an early stage of fatty degeneration, with urinous cysts on their surfaces.

The only interest which this case possesses arises from the existence of an extensive and long-standing injury to the part supposed by a certain school of physiologists to be the central organ of speech, without any impairment of that faculty resulting; and its value is enhanced by the statement made by Dr. Ogle, in the paper already referred to, that, to the best of his knowledge, there was no case on record in which disease of the posterior part of the third frontal convolution on the left side had co-existed with integrity of speech.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES ATTENDING MR. HUTCHINSON'S CLINIQUE.

Proportion of Syphilitic to other Patients.

CONSIDERABLE attention has recently been given to the collection of accurate estimates of the prevalence of syphilitic maladies. We contribute the following item to the inquiry. The plan of carefully counting all who present themselves on certain days is more trustworthy than the collection of "statistics" from Hospital registers, since the diagnosis recorded in the latter (at the time of the patient's admission) is often inaccurate.

On December 12 a total of 50 patients attended. Of these, 39 had no connexion with syphilis, 5 were cases of syphilitic iritis, 2 of synechiæ from iritis probably, but not positively, of syphilitic origin, and 4 were cases of inherited syphilis. Thus, counting the two doubtful cases, we have 11 of specific origin—a ratio of about 1 in 4·5.

Rarity of Severe Cases of Granular Lids in English Practice.

It is a matter of frequent remark from foreign visitors to Moorfields that cases of trachoma are very much less frequent

than at other ophthalmic institutions. Amongst Mr Hutchinson's patients during the last six months there have not been more than half a dozen such cases of any great severity. On December 12 the cases were counted; and, out of 50 patients, only two were attending for granular lids. Of these, one was an Australian case, originally severe, but now nearly well, and the other a mild case in a young child.

Most of the more severe cases are either in Irish persons or in those who have lived abroad—Egypt, Australia, etc.

The practice at present pursued at this Hospital of applying rather strong solutions of nitrate of silver (twenty grains to the ounce) appears to be very successful. Mr. Hutchinson frequently uses in addition drops of chloride of zinc (two grains to the ounce).

History of Sudden Failure of Sight in a Case of Chronic Disease.

An Irish labourer, aged 55, applied on December 12, with the statement that a fortnight ago he had suddenly become blind. He had lost all perception of light. When his story was unravelled it appeared that he had been blind of the right eye for five months, but the curious fact still remained that, although his left was failing gradually, he had been able to keep at work until a fortnight ago. At that time he was engaged at an iron foundry, when he suddenly lost sight entirely and had to be led home. Since then he has been in total darkness. He had not had any fit, nor had he suffered from headache or giddiness. At the time his sight left him the shock was so sudden that he fell down, but he had no other symptoms of apoplexy, nor did he lose consciousness.

With such a history embolism might naturally be suspected. His heart, however, was found free from bruit. With the ophthalmoscope both discs were found to be very pale, and with rather indistinct margins, as if from former neuritis. The arteria and vena centralis were both very small, but their branches could yet be traced.

Probably the case was one of insidious neuritis, in which the early stages had, as Dr. Hughlings Jackson has shown is often the case, caused but little defect. In such it is not unusual for sudden failure to occur, but it is rare to have it so sudden, so complete, and so lasting as in this instance.

Staphyloma Posticum and very Extensive Absorption of Choroid in a Patient not originally Myopic.

A German, aged about 40, is now attending in whom the eyes have been gradually failing for three years. He needs — 5 to see the clock-face, and then cannot tell the time. With the ophthalmoscope the usual conditions of myopia, as shown in the inverted image, are very easily seen at all distances to within ten inches of the eye. Immense patches of denuded sclerotic are seen surrounding the disc in each eye. The margins of these patches are very abrupt, but irregular and notched. In each eye the yellow spot is involved. Yet this man was not shortsighted in early life. He was a soldier for seven years, and "could see as well as any one." Nor has he followed any occupation likely to induce myopia. He himself attributes his loss of sight to lead poisoning, from which he has suffered severely. No doubt there has been choroiditis in addition to mere elongation of globe.

STOCKPORT INFIRMARY.

LIGATURE OF THE EXTERNAL ILIAC ARTERY FOR ANEURISM—SECONDARY HÆMORRHAGE—CURE.

(Under the care of JOHN DURHAM BIRD, M.B. Lond., Surgeon to the Infirmary.)

THE following case is of interest in consequence of the severe secondary hæmorrhage, which nearly proved fatal to the patient. We are indebted to Mr. J. Peeke Richards, late House-Surgeon to the Infirmary, for the report.

Joel R., aged 43, was admitted into the Stockport Infirmary under Dr. Bird's care on November 6, 1866. He had been in the army upwards of nine years, during which time he served in the Crimea, and in India during the mutiny. Whilst in India, as he was walking by the side of a camel conveying baggage, a box fell upon him, injuring his testicles. He was conveyed to the Hospital, where he was laid up some time with the subsequent inflammation. He says one of the testicles was lanced, and that some days afterwards he had violent bleeding which nearly killed him. He does not remember that his thigh was hurt. In September, 1866, he over-exerted himself in drawing a cart up an incline, and immediately afterwards noticed a small throbbing tumour in the left thigh. This tumour rapidly increased, and on his admission had attained the size of a large orange, with marked pulsation and a very loud bruit. The pulsation could be stopped by pressure just above the pubes. For the first few days after admission, compression above Poupart's ligament, both digital and mechanical, was tried, but he was unable to bear the pain produced, and as the tumour became tender, and the leg œdematous, it was necessary to tie the artery without delay.

November 15.—The patient was put under the influence of chloroform, and the vessel tied about two inches above Poupart's ligament, being apparently healthy at that spot. For some days after the operation he complained of very severe pain in the leg and foot, but in other respects went on well till the 21st, when he felt something trickling down the leg, and, on examination, found it was blood. He lost about four ounces.

On the following day the ligature was found loose in the wound

A week afterwards (November 29) another attack of hæmorrhage came on while he was using the bed-pan, and recurred with considerable violence in the evening.

Three days afterwards (December 2) he attempted to get up while asleep, and very profuse hæmorrhage occurred. It was arrested by applying firm pressure below the wound. In the evening he was sick, and disturbed the pad, and severe bleeding followed. Dr. Bird saw him about midnight, and found him very faint and exhausted. The bleeding had ceased, the wound being closed up with clotted blood.

After this there was no more bleeding until December 6, when it suddenly returned, but was soon stopped by the readjustment of the pad.

From this date he progressed slowly towards recovery, the wound being a long time in healing, and he was discharged from the Hospital on March 2, 1867.

The tumour did not diminish at all in size until about the middle of February; but in March, when he was discharged, it was not much larger than a filbert.

Two or three months afterwards Dr. Bird examined the man again, and found that it had wholly disappeared.

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Medical Times and Gazette.

SATURDAY, DECEMBER 21, 1867.

THE VICTIMS OF FENIANISM.

EVERYBODY far and near has heard of the horrible deeds of the Fenians at Clerkenwell. They have read of the cask of gunpowder, or whatever other destructive agent it was, wheeled up to the walls of the prison, of its explosion, and the consequent destruction of the prison walls and of the houses opposite. Four persons lie dead in St. Bartholomew's Hospital, one lies dead at the Royal Free Hospital, some are still very far from being out of danger, whilst many are hopelessly disfigured for life. The sight of these poor creatures lying tossing and tumbling on beds of anguish is enough to rouse the bile of any one against the harebrained idiots or bigots who have brought them to such a pass. The very nature of the attempt shows what sort of men are concerned in this conspiracy. They are incapable of calculation, for there i

little doubt but that, had the prisoners been exercising in the yard at the time, most, if not all, of them would have perished. The broken bricks must have flown across the yard like a shower of grape, for on examination we found the walls of the prison deeply indented and marked by the masses of brick which had been propelled against it, whilst the area below was covered with brick dust, the result of their concussion against the wall, to the depth of half a foot. Inside the prison presented an equally unwonted appearance; instead of the ordinary quiet of the corridors, they were crowded with visitors, police, and soldiers. The latter also bivouacking in the cells ordinarily allotted to suspected criminals, gave a curious aspect to the scene. The skylights were complete wrecks, and the rain was dropping through on to the floor beneath. But to turn to the facts with which we have more immediately to do.

There are still in St. Bartholomew's Hospital 32 sufferers from the injuries inflicted in connexion with the explosion; 31 were brought in at the time (30 suffering from its effects directly, and one man from injury received in clearing away the ruins), and 2 cases of slighter injury were received on Sunday. Of these, 5 are still very ill, some in a most precarious condition; but the remainder are doing well. At the Royal Free Hospital 6 were received; of these one is since dead, after great suffering, having been fearfully mangled, one man lies in a precarious condition, another poor child will lose the sight of both eyes, one of them being even now completely destroyed. The others will probably do well.

The injuries received are of two classes, though the direct result of the explosion; some of the patients having been knocked over and stunned, some having been severely cut by the broken glass. Probably, however, the most severe injuries were inflicted by the falling of the house, No. 3a, Corporation-lane. A number of cuts were also produced by fragments of brick, etc. When the news reached St. Bartholomew's Hospital, Mr Holden had not left the Hospital, and was consequently ready to receive the patients as they arrived; by which time, through the energetic arrangements of the treasurer, Mr. Foster White, everything was ready for their reception We are indebted to Mr. McClean, House-Surgeon to Mr. Holden, for most of the particulars as to the individual cases hereafter reported. There were many cases of slighter injury, which required nothing beyond attention at the time.

In Colston Ward, most of the male sufferers are collected. The first of these, Caleb Beckett, aged 28, received several cuts on the forehead, the right arm, and fingers of the right hand, whilst engaged in removing the ruins. He is doing well. A man named William Thichtener, aged 55, received sundry scratches on the face, and suffered from slight concussion, owing to the fall of a beam on his head. He has almost recovered, but slight erysipelas has appeared on his face; it is, at the time of our going to press, gradually fading. Thomas Wheeler, a little boy of the age of 10 years, was playing in the street when the explosion took place. He was knocked over, and received a deep cut on the back of his neck, and had his thumb and ring fingers so much injured that it was found necessary to remove them. At the time of our visit he was crying bitterly on account of pain in the stump of his thumb; that, also, has now abated. William Abbott, aged 11, received severe lacerated wounds of the face, from which pieces of broken glass were subsequently removed. Part of his nose was also cut off; but the portion was replaced, and he is now doing well. His eyelid received a deep cut, but the eye beneath is safe. John Harvey, aged 48, suffered from a scalp wound and scratches of the face, which are now almost well. Henry Hodgkinson, aged 33, was dug out of the ruins in a collapsed condition. His wife was less fortunate, for she was dead when discovered. His mother is also severely injured Notwithstanding the precarious position in which he was discovered, he had only outwardly sustained a few small lacerated wounds of the right arm and fingers of the right hand.

As most of the men were abroad at the time the explosion took place, women and children have been the greatest sufferers. One of the worst cases is that of Mary Moseley, aged 48, who, besides exhibiting severe cuts of the face, had a deep wound on the side of the head, dividing the temporal artery and muscle. From this wound there was much bleeding, and the vessel had to be tied. Great prostration followed, and she is not yet out of danger, the more especially as she is now suffering from a slight attack of erysipelas, which threatens to spread. Maria Abbott (aged 34), on the other hand, sustained only some trifling cuts of the face and eyelids, and is now almost well. Mary Anne Chittlebury (aged 30) is suffering from the effects of a deep wound on the left side of the forehead, with injuries of less importance to the back of her head and her face. She is, however, doing well. A poor girl named Elizabeth Thomson, of the age of 17, who was dug out of the ruins, has suffered much. Her face is severely cut, and the left eyelid cut through. This eye Mr. Holden had to operate on for the relief of tension, the eyeball threatening to burst. The operation was performed on Wednesday evening. The other eye, though swollen, is probably safe; but her body has been much bruised. Her condition is very precarious, and she is at times delirious. Maria Gills (39) also sustained a deep wound of the forehead; she was delirious at first, but is now doing well. Elizabeth Holden (54), the landlady of the doomed house, was in the kitchen at the time of the explosion; she has, consequently, suffered no very severe injury—only a few slight scratches of the face and forehead being noticeable. Elizabeth Hodgkinson (61), mother of the man already mentioned, is still dangerously ill. She has severe wounds of the face and forehead; her left eye is completely destroyed, and her left temporal artery was cut, so that compression had to be employed to arrest the bleeding. A little boy, Thomas Hartley (8), has a number of small cuts all over his face, together with one much longer and deeper running from the forehead along the nose, and laying open the cavity of the latter, so that its edges had to be stitched. He is doing well. W. T. Pirrie, aged 4, and Martha Pirrie, aged 2, were both slightly injured, and are both doing well. The boy had many small cuts on the head and face, whilst the girl sustained a green-stick fracture of the lower end of the radius on the right side. Elizabeth Williams (30) suffered from severe cuts of the head, face, and eyelids, and a lacerated wound of the right wrist. She is doing well. Harriet Thomson (14), on the other hand, who sustained several wounds and bruises on the right side of the face and deep lacerated wounds of both arms, is still very ill. Sarah Hartley, aged 41, is the mother of two children—Henry Hartley, aged 15 months, and Alfred Hartley, aged 3 years—who are lying beside her. The mother has a severe wound of the left ear, which is almost gone, and a deep wound in the side of the neck; both are doing well. The youngest child is almost uninjured, having only a slight cut in its forehead; the elder sustained a great many small cuts of the face, with a deep one on the forehead, from which there was much bleeding. He is now almost well.

Martha Evans, aged 67, a poor woman said to have been bedridden at and before the time of her accident, was brought in suffering from severe cuts on the back and side of her neck and the back of her head. She was very restless, and had great dyspnœa. Ultimately she sank, and died on Thursday morning. Mary Ann Mills, aged 46, had severe wounds of the face and forehead, inflicted by broken glass, but she is now nearly well. Anne Bennett (68) had a deep wound in the right cheek, necessitating the tying of a vessel. She is doing well. Mary Ann Young was brought in speechless and pulseless. She had deep cuts in her forehead, head, and face. Artificial respiration was employed, and in a quarter of an hour she was brought round, but she is still very bad. Annie Abbott and Elizabeth Thomson both suffered from slight con-

cussion, and are now well. The same may be said of Charles Pirrie and Edith Chittlebury. John Abbott, aged 13, had scratches of the face; he has now recovered. Annie Cross, a child aged 8, was brought in with severe concussion and almost pulseless. She had a severe lacerated wound on the outside of the left knee, exposing the tibia, which appeared to be broken. The wound has been treated with carbolic acid lotion, and is looking well.

The two cases brought in on Sunday were those of John Moseley, aged 11, with slight scratches on the left side of the face and on the eyelids, and Jane Rowen, aged 17, who was more frightened than hurt. Both are now well.

At the Royal Free Hospital, Mr. Gant was Surgeon for the week, but was not in the Hospital when the cases were brought in; they were therefore attended to by Mr. Jeaffreson, the senior resident Surgeon, and Mr. L. A. Hill, and Dr. Lloyd Owen, who rendered him every assistance. First comes Humphrey Evans, a delicate old man, aged 66, suffering much from shock and a large incised wound of the right cheek and forehead, as well as from lacerated wounds of the back. He is progressing favourably, but is not yet out of danger. Emma Thompson, a child aged 8, sustained rather severe lacerated wounds of the scalp and left side of the neck. She also is progressing favourably. Arthur Henry Abbott, aged 5, whose relations lie in St. Bartholomew's, has his face covered with small lacerated wounds, and his right eyeball is ruptured. His left eye will probably also be lost; otherwise he is progressing favourably. Hannah Roberts, aged 20, suffers from incised wounds of the back of the head and neck. Her left arm was covered with incised wounds, ranging from half an inch to three inches in length. She is now doing well. A child named Martha Thompson, aged 10, was fearfully injured; her features were so cut and blackened as to be perfectly irrecognisable. The flesh was torn from her skull, and the bone itself was broken. One of her ears was also gone. After lingering for a time in great pain, the poor child sank and died. In all the cases under treatment much shock, probably the result of fright, was observed. Besides these, seventeen others were treated as out-patients, with wounds of the scalp and arms of varying degrees of severity. Up to the time of our going to press, Mr. Jeaffreson reports that the rest of the patients are progressing favourably.

We subjoin some particulars as to the appearances observed on the bodies of those who were brought dead to St. Bartholomew's Hospital. The post-mortem examinations were made by Mr. McClean. He found the chest of John Cluton completely smashed in, his lungs ruptured, and the pleura filled with blood. The left ventricle and the pericardium were torn open, and a small quantity of blood was found in the cavity of the latter. Mrs. Hodgkinson was very badly cut about the head and neck. There was a considerable quantity of blood in the right pleural cavity, probably coming from one of the large veins of the neck. There was a large clot of blood just above the bifurcation of the bronchi, blocking up the trachea, and probably causing death. In the child Abbott there was effusion of blood both without and within the skull, some of the sutures of which were partially separated.

Such is the list of casualties recorded. Something like Homer's catalogue of the ships, it presents a good deal of sameness; but it is fearfully suggestive, as times go. What is the fate of these poor creatures to-day may be, if we live in obnoxious localities, ours to-morrow.

CONTAGIOUS DISEASES ACT IN RELATION TO THE CIVIL POPULATION.

An article which appeared in a Medical contemporary of the 7th inst. under the above heading, appears to require some notice at our hands. The writer of the article in question advocates the extension of the operation of the Contagious Diseases Act of 1866 to the civil population at large, and, in order to meet the objection that a sufficient amount of data has not yet been collected on which to found an opinion as to the value of the Act in the prevention of venereal disease, he supplies and comments upon some statistics "which seem to show that where the Act is worked efficiently the best results have already been obtained; and that in the instances where it appears to have failed, this is accounted for by the imperfect mode in which the Act has been employed."

The instances selected for contrast are those of the naval, marine, and military forces at Plymouth and Devonport. The relative prevalence of venereal diseases among these three bodies of men from April, 1865, when the Contagious Diseases Act first came into operation, till September, 1867, is illustrated by a chart, from which it appears that, while in the case of the navy the amount of venereal disease, which at the outset was in excess of that of the army, has steadily diminished from 21 to 1 per 1000, it has in the army fluctuated from time to time, and in 1867 rose from 10 in January to no less than 35 per 1000 in September. In the case of the marines, a mid course is observable.

The conclusion arrived at from the above premises is, that "the working of the Act has diminished the amount of venereal disease in the navy from a large to a comparatively trifling amount in the Plymouth district, whilst with the army this is not the case."

Now, the conclusion to which we arrive from exactly the same premises is that, whatever other causes may have contributed to diminish the amount of venereal disease in the navy, the working of the Contagious Diseases Act has *not* had any share in that beneficial result. The conclusion to which we object appears to us to have been hastily drawn on the "*post hoc propter hoc*" principle, which is so attractive to superficial reasoners. The provisions of the Act are carried out, as respects all the branches of the public service, by the same "police," among the same body of public women, who also are all treated in the same Hospitals by the same Medical officers. We do not see how its results can have been so remarkably beneficial in one branch, and have remained inoperative in another, and comparatively so in the third, unless it can be shown that a different set of women was reserved for the attentions of each, and that those for the sailors were efficiently inspected and cared for, while those from whom the soldiers "bought repentance" were neglected. This would have been a truly crucial experiment if it had been tried, and if it had furnished such very remarkable results as have been stated above. But such has not been the case, and we maintain that, in order to discover the true cause of the difference in the prevalence of venereal diseases among the three bodies of men stationed at Plymouth, we must look beyond the operation of the Contagious Diseases Act as at present in force among them. And we are of opinion that the question is one of such interest as to demand thorough investigation.

It is hinted in the article to which we refer that in the navy more facility is given in the working of the Act; but if this be one of the efficient uses of the result stated, we might expect to see it equally effective among the marines as it is supposed to have been among the sailors, as both of these classes of men are under the same system of Medical administration. This, however, has not been the case, although in the chart the curves of prevalence in the marines have more of a downward tendency than they have in the army.

It is also intimated that the arrival of regiments from Aldershot and other places in which syphilis exists introduces a fresh supply of virus among the women, and so leads to the increase of disease, and that the importation of fresh regiments and the rise in the percentage of admissions into Hospital among the soldiers apparently coincide. But in this statement a source of fallacy is involved which must be removed before we can place any confidence in the inference drawn

from it. The question arises, Does the increase in the rate of admissions into Hospital among the soldiers occur among those previously quartered in the station who had hitherto enjoyed a comparative immunity, or does it occur among the newly arrived soldiers, who have already contracted the disease at their former station? It is also stated that in such case the navy feels the new influence to a slight degree. But in order to establish the connexion of cause and effect between the two events, it remains to be shown whether any increase of disease is actually known to occur among the women on the arrival of regiments from other stations, as we need not consider the probability of direct communication of disease from man to man. There is another item of difficulty in the discussion suggested by the statement that "when a ship arrives home she is generally clean, and hence the influx of sailors does not tend to the same result as in the former case." Exactly so. The navy in harbours at home is reinforced by men who have not had any opportunity for months past of contracting disease. Military garrisons are reinforced by men who may already have implanted the seeds of disease, and who, in due course of time, have to appear as admissions in the Hospital books. It is stated that a regiment recently arrived from New Zealand free from disease, on being stationed in Manchester, where the Act is not in force, has now the largest amount of venereal disease of any regiment in the service. But to fully appreciate the value of this fact as bearing on the influence of the Contagious Diseases Act, we ought to be able to set against it the instance of another regiment arriving under similar circumstances and being stationed at a place where the Act is in force. We are not at present aware of any such instance having yet occurred. The experiment, however, is well worth trying.

To our mind, the state of the question as to the influence of any legislative enactment to prevent the spread of enthetic diseases must remain a matter of extreme uncertainty so long as the experiment is tried on the present limited and partial scale. Under the system of local application of the Act it is absolutely impossible to exclude the innumerable disturbing influences and sources of error. We are of opinion that the operation of the Contagious Diseases Act ought to be extended to the civil population, but to be truly effectual it should include the clandestine as well as the registered prostitutes; and this is the great difficulty. We should have little hesitation in predicting a highly favourable result of the experiment, not only as regards the health of the present generation, but as affecting that of generations yet unborn. To some sincere and thoughtful minds morality forbids any interference with a series of events which so clearly appears to indicate the punishment of moral guilt by physical suffering. To us it appears that, taking the highest view of the matter, the moral guilt and its ultimate effects remain exactly the same whether the infringement of Divine laws be followed by immediate physical suffering in this life or not. In refusing or neglecting to make use of such measures as may be revealed to us through the voice of science by God himself for the remedy or prevention of any of the numerous forms of human suffering, because, forsooth, we think that suffering is deserved as the punishment of sin, we put ourselves in the position of both judge and executioner. Those who are deterred from vice merely by the *fear* of its physical results, belong to the sixth order of unworthy Pharisees mentioned in the Talmud—namely, "those who are pious because they *fear* God," and having the sin in their heart are really as guilty, in the true sense of the word, as if they had indulged their evil propensities without restriction. Wherefore the supposed deterrent influences of prospective disease vanish from our minds, when contemplated by the light of the highest and purest morality, in so far as the individual is concerned; but the duty which devolves upon us of endeavouring, so far as in us lies, to prevent disease, and improve the health of the human race, remains intact.

THE WEEK.

TOPICS OF THE DAY.

The Fenian outrages have directed public attention to the subject of explosive compounds, and, doubtless, many of our readers have already had to stand a broadside of questions from patients as to the nature of Greek fire, Fenian fire, nitroglycerine, and other formidable substances. Some of these questions are more easily asked than answered. Whatever the modern Greek fire may be, the composition of ancient Greek fire is utterly unknown. Gibbon, indeed, surmises that it was prepared from naphtha, sulphur, and pitch, but as to the proportions of these materials, or the manner in which they were combined, he confesses his ignorance. It is said there is a recipe for the preparation of Greek fire in a Spanish MS. of the thirteenth century, now existing in the Bodleian Library, and another in the work of Marcus Græcus. The care with which the secret was guarded both by Christians and Saracens, together with the fact that "the liquid fire" was completely superseded as a destructive by gunpowder, accounts for its composition being altogether uncertain. Modern Greek fire is a solution of phosphorus in bisulphide of carbon. The latter substance volatilises rapidly, and leaves the phosphorus in so minutely divided a state as to insure its combustion. Bisulphide of carbon is also itself highly inflammable. Like its prototype, when ignited water does not extinguish the modern Greek fire, but a solution of soap leys or soda puts it out directly. What may have been the "Fenian fire" used at Clerkenwell, we do not know; but it is at least doubtful whether it was gunpowder alone. We have been assured by a competent witness that after the explosion there was no smell of gunpowder to be perceived, although it appears from the evidence of the police that the portions of the cask discovered had that smell, but the clothes of the sufferers admitted at St. Bartholomew's are said to have smelt strongly of burnt petroleum. The substance used was certainly not nitroglycerine, as has been suggested. Had it been, the explosion of so considerable a quantity must have produced even far greater mischief. In the terrible accident with this substance which took place at San Francisco, human beings were literally blown to atoms, and our recent experience at Newcastle exemplifies the awful destruction it is capable of producing. Besides, it is most improbable that even Fenian filibusters would have had the hardihood to drag a cask of nitroglycerine through the streets of London at the imminent risk of their own lives.

The accident at Newcastle, following directly upon the Clerkenwell atrocity, will of course be most carefully investigated by the police. The public will demand very complete information as to the circumstances under which Mr. Spark, the auctioneer, stored nine canisters of nitroglycerine behind the Newcastle Branch Bank of England. The report in the *Times* states that the contents of six canisters and the liquid contents of the three others had been safely deposited in the earth before the explosion occurred, and that it was the presence of a crystallised residue in the three latter which led Mr. Mawson, the Sheriff, who is said to be an able chemist, to direct that they should be buried. In obeying his command, the canisters exploded, three persons were killed, and several others, amongst whom was the Sheriff himself, very dangerously injured. Two of these have since died. The substance nitro-glycerine or -glonoine, which is capable of producing such terrible effects, has the chemical composition $C_6H_6(NO_4)_2O_6$. It is prepared by the successive addition of strong nitric and sulphuric acids, in very small quantities, to glycerine, at a temperature below 32°. When at a low temperature and in a state of rest, it is harmless, and we believe it is much employed for blasting rocks in mining operations. But concussion, or anything which raises its temperature, produces instant explosion. Professor Abel, of Woolwich, states that, if in any quantity, a temperature of from 110° to 130° is sufficient to explode it. Our readers may recollect that a few years ago

this compound was recommended as a remedy in nervous diseases; but it did not stand the test of trial. Its physiological action is said to resemble in some points that of strychnia, in others that of hydrocyanic acid. Even in medicinal doses it is apt to produce intense pain at the back of the head.

Whatever may be the ultimate effect of the recent cabmen's strike, we do hope that the Government will not yield on the subject of the lamp dispute. A correspondent of the *Times*, writing from Fisk Ward, King's College Hospital, where he is confined with fracture and dislocation of the ankle, tells how he was driven down and crushed, on a dark night last week, in Holborn, by a Hansom cabman, who just looked over his shoulder, and drove on as if nothing had happened. But this is an every-day occurrence. The last weekly Return of the Registrar-General states that "164 deaths from injuries caused by horses or vehicles in the streets have been recorded during the present year. Ten persons were killed by horses, 3 by carriages, 7 by omnibuses, 17 by cabs, 32 by vans or wagons, 5 by drays, 43 by carts, and 47 by vehicles not described."

The distribution of indecent books by advertising quacks is again attracting public notice. A writer in a morning paper gives a good prescription for putting a stop to the nuisance. He writes:—"I got a large hamper, filled it full of rubbish, bricks and straw, etc., and in the middle I put the last book I had received, and outside the book I wrote 'Sold again.' I directed the hamper to the author of the book —'Dr. So-and-so, etc., from a grateful patient'—stuck some hares' legs under the lid, so as to let him see what was inside, and sent it by express train. I never had another book."

We are glad to hear that the vestry of St. Ann's parish have memorialised the Poor-law Board to reinstate Dr. Rogers in the Medical officership to the Strand Union Workhouse. As we believe that Dr. Rogers has been made a martyr by the guardians for his exertions in the cause of humanity, we heartily hope that the Poor-law Board may listen to the appeal, and not sanction the persecution of a deserving Medical officer.

A vacancy in the Medical staff of St. Mary's Hospital occurs through the resignation of Dr. Markham, and the subsequent resignation of Dr. Charlton Bastian, who was appointed to take a portion of Dr. Markham's duties. For this appointment, Dr. Henry Lawson is a candidate. We think that this gentleman has a strong claim, from the fact that he has for some time held half the important chair of physiology in the school. We hope that he may be successful.

Mr. A. Bruce, Assistant-Surgeon to the Westminster Hospital, has been recommended by the Committee of that Hospital for the chair of anatomy, vacant by the resignation of Mr. Teevan. The chair of botany at Charing-cross is vacant through the transference of Dr. A. Silver to that of Medical jurisprudence and toxicology. There is also a vacancy for an Assistant-Physician at the Hospital for Consumption, Brompton.

WORKHOUSE REFORM.

The session of the Health Department of the Social Science Association was opened on Wednesday evening last, with an address by Mr. Ernest Hart on a national scheme for the better government of Workhouse Infirmaries in England. Mr. Hart reviewed the circumstances which, from the Gibson and Daly incidents down to the present time, have directed public attention to the defects in the existing administration of workhouses; he attributed these defects mainly to the want of technical knowledge in dealing with the sick and infirm inmates (who form the majority of our present workhouse population) on the part of the Poor-law Inspectors, and to the absence of any properly constituted representation on the Poor-law Board itself of the Medical interests concerned. The broad outlines of Mr. Hart's plan of improved organisation are these: the adoption of a series of general principles to form a code for the guidance of the officials; the Medical officers to hold their appointments for life, or, at any rate, subject only to dismissal by the Poor-law Board; paid nursing; free access for visiting Committees of Ladies, and for the Medical Profession, to the workhouses at all reasonable seasons; the appointment of technically qualified inspectors with fuller powers; and the creation of a Medical Department of the Poor-law Board. It was pointed out in the course of discussion that an example of what should be done is furnished by the system under which the Irish Poor-law is conducted at the present time. We have not at present space for discussing the many branches of this interesting and important subject which were touched upon at the meeting, but we may say, *ad interim*, that our experience teaches us very plainly that an infinitely greater amount of good would result from a properly organised system of out-door Medical relief than from any scheme, however well devised, which applies only to the inmates of workhouses.

A TRIPLING DISTINCTION.

An incident which has recently occurred in the St. Pancras Workhouse tends to show that the distinction of extremities is occasionally either misinterpreted or insufficiently appreciated. The other day Dr. Gibson, the Medical officer, reported that he put into the hands of one of the nurses a pill, directing her to give it to a certain patient, but this highly intelligent female made the unhappy man swallow instead two suppositories intended for another patient, and gave the pill to some other unlucky pauper. The suppository contained a quantity of opium more than sufficient to poison one individual, but happily no fatal consequences ensued. Apart from its graver aspects, there is an absurdity about the matter which, while it illustrates the proverbial blundering stupidity of the workhouse nurse, must excite a smile even in the most serious. How often, we wonder, has this woman made similar mistakes?

PRISON DIETARIES.

The subject of prison dietaries, to which we some time since called attention, continues to develope in importance, and to attract the notice both of Government and the public press. What the result may be of the ventilation which the matter now receives of course remains to be seen; whether the authorities will apply for counsel to those practical physiologists who have given the question of diet serious consideration, it is impossible at present to determine. We shall not, however, be charged with undue pertinacity in once more requesting "the powers that be" to give this important point in public hygiene their grave deliberation ere they lay down a scheme of dietary which, once adopted, it would take years to alter. We are led to these remarks from the very instructive and painstaking report on the dietaries of the Scotch prisons which has been written by Dr. Robert Christison and Mr. J. B. Thomson, and is appended to the "Twenty-seventh Report on Prisons in Scotland." From this document, it appears that before the year 1854, the dietaries of the Scotch prisons were—like those of the Irish prisons, lately referred to by Dr. Lankester—constructed upon principles more remarkable for their economy than for their scientific worth. During the period of their adoption, the health of the prisoners was found to be seriously deteriorated, and such affections as dysentery, diarrhœa, scurvy, scrofula, and phthisis were of frequent occurrence. This was before 1854. In that year a new and more rational scheme was sanctioned and carried out, and the result has been advantageous to the interests of the State and to the health of the prisoners. The change produced by this salutary alteration was most striking. The sickness-rate was reduced from 65 to 45 per cent., and the death-rate similarly was diminished 1·41 to 1·15 per cent. Besides this the number of prisoners off work having been

decreased, a gain in labour has been the consequence. The tables which the two reporters have furnished are numerous and elaborate, and display the exact amount of food, estimated as carbon and nitrogen, which is allotted weekly to each class of prisoner. The dietary of the Scotch prisons is much higher in nutritive value than that of the English ones, and in its pecuniary cost it also contrasts most favourably with the scheme adopted in this country. This is most probably due to the predominance of oatmeal and milk, which furnish a large amount of highly nutritive material at a relatively low cost. The employment of milk justifies, in Dr. Christison's opinion, the authorities in dispensing with butchers' meat, which, of course, is much more expensive. How far this is true in practice is, it seems to us, as yet a problem; but for the present we accept Dr. Christison's view of the matter. In instituting a comparison between the English and Scottish diet scale, the reporters observe upon the large supply of meat to English prisoners: "This contrasts strongly with our Scottish local prison dietaries, which contain no meat except in small quantity in broth. But milk, which contains largely the nutriment of animal food, is our substitute for meat, and is found nutritious enough for all prisoners whose sentences do not extend beyond twenty-four (?) months." Dr. Christison's observations are of interest, as showing what dangers may result from the adoption of an economic (!) dietary scheme; and while they prove that prisoners north of the Tweed are better off than those south of it, they by no means definitely settle the question of dietary. For, apart from the fact that the relative nutritive value of food cannot be satisfactorily determined by reference to the proportion of nitrogen and carbon they contain, there is the significant circumstance that habit of life has much to do with the whole problem of a physiological scheme of diet. The Irishman, Italian, and Englishman, though anatomically identical, will not maintain health upon the same diet, however admirably its carbon and nitrogen be theoretically apportioned to their wants.

THE DELHI ULCER.

Many of our readers have been puzzled, no doubt, to know what is meant by "Delhi sores." As the extreme prevalence and the intractable character of this disease among our European troops in India led to the appointment of a special Medical committee, we have some information which may not prove uninteresting. The Second Report of the Sanitary Commission for Bengal for 1865, published a short time ago, may be referred to for further details. The name of Delhi, then, has long been associated with a peculiar ulcer which was common among the inhabitants, and by them named "Aurungzebe," after the Emperor, who is said to have suffered from it. The natives of Delhi have for generations been in the habit of presenting offerings at a particular shrine, in the hope of propitiating the deity and getting cured. The disease exists elsewhere, but its head-quarters is Delhi. Since 1857, we learn from the Bengal Sanitary Report, it has affected no less than from 400 to 700 per 1000 of the British soldiers during the first year of their residence. The sore is not generally painful, nor is there any constitutional disturbance; but it is a very tedious complaint, and, attacking, as it does, the hands and face, it occasions a good deal of disfigurement. We have ourselves seen some examples of the scar left by the ulcer in the persons of some of our soldiers returned from India. There was a somewhat dull-red, livid, slightly raised mark on the forehead of one and on the hand of another, and it was upwards of six or eight months since the men had been attacked. Its origin was conjectured to depend upon the presence of some parasitic growths, but this has not been borne out by the microscopic examinations instituted. It seems highly probable that the use of the Delhi water tends to propagate the disease; but, if so, the great relative proclivity of Europeans as compared with the natives is not explained, nor why it should be confined so strictly within the city. The contagiousness of the disease has not been determined either, although this as a cause of its spread was believed by many. Inoculation of the secretions of the sore generally failed, and it was very doubtful indeed whether the few positive results that were obtained were in reality identical with the "Delhi ulcer" from which the inoculating matters were obtained. Everything pointed to the operation of some local cause, and an analysis of the water from the wells and canals of the city was made. In only two instances did the well-water examined contain less than four grains of organic matter per gallon. In others which were used for drinking, it amounted to as much as sixteen grains. In the water used for washing and for cattle, it was as high as 65 and even 144 grains per gallon. These waters were, moreover, loaded with nitrates. We can only wonder that other diseases did not appear in the garrison of Delhi, as the wells must have been merely receptacles for animal matter in a state of decomposition, as pointed out by the analyst, Dr. Lackersteen.

A STATISTICAL INQUIRY INTO CERTAIN POINTS CONNECTED WITH VENEREAL DISEASES.

In the last volume of the Army Medical Reports, lately published, there is a very practical paper by Dr. Fasson, Royal Artillery. It appears that Dr. Balfour, whilst acting as a member of the late committee on contagious diseases at the Admiralty, was struck with the fact that on several disputed points, to the determination of which the numerical method was obviously well adapted, it was nearly impossible to obtain any precise and accurate information. A form of register was drawn up, in which the more important points capable of elucidation by statistics might be recorded, and this was taken into use in the Garrison Hospital, Woolwich. All the cases of enthetic disease were collected into a sick Hospital, and placed under the charge of Dr. Fasson. His paper contains the results of the observation of 210 cases. Dr. Fasson is evidently clearly convinced that there are two forms of venereal ulcers, perfectly distinct and separate from one another—the one being a local, the other a constitutional disease. He recognises the very different symptoms which characterise these affections, and concludes that the facts observed afford very strong presumptive evidence in favour of the theory of there being two kinds of venereal virus. He shows that the two affections may, and frequently do, co-exist; that the contraction of one form gives no immunity from contagion of the other form, and he adds that the true, the syphilitic sore, in its development follows contagion much more tardily than the other variety. The phagedænic chancre he considers an accidental condition which may supervene on either form of disease. The duration of the soft or simple venereal ulcer is very variable, ranging from 3 to 128 days, the average being 35 days. The duration of the hard or system-infecting chancre is almost as variable, ranging from 13 to 135 days, the average being 42. Out of 143 soft chancres, 6 only were followed by constitutional manifestations, and of these 2 had a previous constitutional syphilitic history, leaving 4 cases only which could be considered as exceptions to the general rule that the soft venereal sore, with a tendency to mono-glandular suppurative disease of the groin, is a local affection, and perfectly distinct from that general infection which is implied in the term syphilis. Of 38 hard chancres, 13 only were followed by constitutional effects, but this does not include anything like all the cases, as, in consequence of Woolwich furnishing drafts to brigades on foreign stations, etc., very many of the subjects left this garrison soon after recovery from their primary disease. The records appear to have been kept with great care. Dr. Fasson was a perfectly disinterested observer; he had no special views to uphold, and he evidently took advantage of special opportunities for studying the subject. He expresses his belief that, as a general

rule, the system-infecting chancre — a very inappropriate expression, by the way—protects the subject of it from a repetition of the disease, although it gives no immunity from infection by the soft or simple chancre. We may as well give his concluding paragraph in his own words :—

"A close observation of this disease leads to the conclusion that certain general rules are applicable to the two forms of venereal sores, but that no *single* rule can be held to be absolute, and that no one feature of either form of sore can be advanced as being always present."

THE VICTORIA CROSS.

(From the *London Gazette*.)

WAR OFFICE, December 17.

THE Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross on the undermentioned officer and private soldiers of her Majesty's army, whose claims to the same have been submitted for her Majesty's approval, for their gallant conduct at the Little Andaman Island, as recorded against their names—viz. :—2nd Battalion 24th Regiment : Assistant-Surgeon Campbell Millis Douglas, M.D. ; Privates Thomas Murphy. James Cooper, David Bell, William Griffiths—for the very gallant and daring manner in which, on May 7, 1867, they risked their lives in manning a boat and proceeding through a dangerous surf to the rescue of some of their comrades, who formed part of an expedition which had been sent to the island of Little Andaman, by order of the Chief Commissioner of British Burmah, with the view of ascertaining the fate of the commander and seven of the crew of the ship Assam Valley, who had landed there, and were supposed to have been murdered by the natives. The officer who commanded the troops on the occasion reports : —"About an hour later in the day, Dr. Douglas, 2nd Battalion 24th Regiment, and the four privates referred to, gallantly manning the second gig, made their way through the surf almost to the shore, but finding their boat was half filled with water, they retired. A second attempt made by Dr. Douglas and party proved successful, five of us being safely passed through the surf to the boats outside. A third and last trip got the whole of the party left on shore safe to the boats." It is stated that Dr. Douglas accomplished these trips through the surf to the shore by no ordinary exertion. He stood in the bows of the boat, and worked her in an intrepid and seamanlike manner, cool to a degree, as if what he was then doing was an ordinary act of every-day life. The four privates behaved in an equally cool and collected manner, rowing through the roughest surf when the slightest hesitation or want of pluck on the part of any one of them would have been attended by the gravest results. It is reported that seventeen officers and men were thus saved from what must otherwise have been a fearful risk, if not certainty of death.

Having recorded this exploit of Dr. Douglas shortly after its occurrence, we are now glad of the opportunity of congratulating him and his brave companions on the above recognition of their services. The officers of the Army Medical Department must acknowledge that there is no unwillingness on the part of the authorities to admit them to a full share of such military rewards. Indeed, we think that if the numbers were calculated, a larger proportion of Victoria Crosses would be found among the Medical officers than in any of the other classes of the army. Admitting this to be the case, and that Medical officers enjoy all the substantial advantages of their rank, such as choice of quarters, allowance of fuel, forage, etc., we think that those among them who are still disposed to complain of their position in minor points are unreasonable and undignified. Medical officers were made for the army, and not the army for Medical officers.

COOKING APPARATUS AT THE SOCIETY OF ARTS' ROOMS.

ON Friday, the 13th inst., a large number of ladies and gentlemen assembled at the Rooms of the Society of Arts, Adelphi, to witness the trial about to be made of various cooking apparatus, particularly that of Captain Warren, now so extensively used in the Army, etc. First was noticed, however, the plan of cooking by Sörrensen's Norwegian Cooking Apparatus, to which we have before referred. On this occasion a boiled leg of mutton so prepared elicited universal approbation ; the Irish stew was also remarkable for the richness of its flavour. Captain Warren then described the principle on which his apparatus was constructed and wrought. No doubt it possesses great advantages. It is portable; its size may be regulated according to the number of men for whom cooking is to be done ; and every particle of fuel is turned to account. At Aldershot, where it is in daily operation, the expenditure of fuel per man is from four to seven ounces per day. The heating is effected by steam, surrounding closed vessels, so that the meat may be cooked in its own juices with no very considerable loss of weight or bulk. The meat cooked this way is very tender and juicy, and of fine flavour, little or none of the extractive matter being lost by evaporation or otherwise. The same apparatus serves to cook vegetables, steam potatoes, boil meat, and to bake bread, pies, etc., as well as to keep water boiling for tea or other purposes. Of course its applications to cookery on a small scale are not, in the meantime, perfectly apparent ; but means may be found to secure the great saving of fuel the principle involves. At the same time Messrs. Allen and Hanbury, of Ploughcourt, City, showed some specimens of their extract of meat imported from Sidney. It is prepared in accordance with the principles of Liebig's method, and, as shown to the assembly in the form of soup, was most excellent. The Julien and mulligatawny soups were really delicious. A more extensive introduction of these extracts as a food supply is much to be desired. Some specimens of Monte Video beef of improved quality were also shown.

"SMITH'S VISITING LIST" FOR 1868.

WE again welcome and recommend this most useful visiting list. We have used it since it first came out, and can bear witness to its manifold uses. To quote from the preface to the first issue—

"It serves for a journal throughout the year, as well of every important occurrence as of the number of patients treated ; marks, by the length of its columns, the busier periods of the year ; affords, by comparison with former years, a measure of increase and decrease in his practice ; and enables him, when a patient comes twice under his notice, to refer at once to the period and duration of his former illness. It is also a book of account against the patient who has not paid a fee at the time. It insures the exact performance of every promise, whether relating to things of importance or to the merest trifles, and procures him, at no great cost or trouble to himself, a reputation for attention, if not a portion of that confidence which is the broadest stepping-stone to success."

LETTS'S DIARIES.

IT is unnecessary to speak of the advantage to every man of business of a good diary. The Messrs. Letts are well known to publish a series fitted for every age, sex, condition, and business in this world—the Medical included.

CHEAP SPARKLING WINES.

AMONGST the various wines which have paid their homage to the *Medical Times and Gazette*, there are some of the sparkling order which deserve a few words of notice. True sparkling wine is, above all others, as we need hardly say, a manufactured article. The wine is seized at a certain point before its fermentation is completed ; it is then bottled, the bottles after a time opened to allow the sediment to escape, and some liqueur added to give strength and sweetness. Of such wines, those of Champagne are confessedly the best, and the best champagne has a true *vinous* character and bouquet without predominance of the flavour of brandy or of sugar. But real champagne is very dear. On the other hand, there are many Medical purposes and many social uses which are answered by various sparkling wines which resemble cham-

pagne in their exhilarating properties, without any pretence of satisfying the requirements of the fastidious connoisseur. Nothing cheers up flagging spirits, checks nausea, and promotes the power of eating, more than a glass of sparkling wine iced; and they who cannot get or do not care for the real champagne, may be glad to find that they can be supplied with what answers their purpose at a cheaper rate. Of such wines there is a centre of industry in the department of the Maine and Loire, and especially in the vicinity of Saumur, and the well-known *Guide Vinicole* of Maurial calls them "des vins mousseux qui peuvent aller de pair avec les dernières qualités de la champagne." We would somewhat mitigate one word of this verdict, and say that the "dernières qualités" of champagne rank a long way behind good "vin mousseux de Saumur." We have had ample opportunity of testing the qualities of that which is made by M. Ackermann Laurence, of Saumur—a well-flavoured, pleasantly vinous, unpretending wine, which bears travel and keeps well, and may be employed in the sick room or at the supper table of any sensible people who are content with a wine at two shillings or half a crown per bottle. We yield similar praise to the wine of M. Louis Duvau, of Saumur, which is imported by Messrs. Charles Kinloch and Co. It is of nice flavour, well saturated with the gas, creaming and not too explosive, and well adapted for people who do not care to pay a high price for a pretentious article. It is not coloured artificially, which is one great merit, and is a wholesome, pure-looking fluid. It may be had of four qualities, ranging from 23s. to 33s. per dozen, and we think the importers deserve a good word for putting a genuine wine of the kind and price within reach of people of moderate means.

Whilst on this subject, let us say that we learn, on the authority of a very genial and responsible functionary, who fills a deservedly high place in the confidence of the Council of a most important Surgical institution, no less than in the esteem of his Professional friends, that the ordinary *gazogen* may be employed with the best possible effects in converting ordinary light still wine into sparkling. The wine, or wine and water iced, is put into the upper chamber of the machine, and there made to absorb carbonic acid, just as water is in the preparation of ordinary soda water. Some of the lighter white varieties of the Greek wines, as the Patras, or the white Gauphine, or any other light French or Hungarian wine, may be made exhilarating and doubly useful in this manner, whether for giving comfort to the sick or merriment to a Christmas party.

NOTES ON MEDICAL EDUCATION.

THE SYSTEMS OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. VI.

The Curriculum of Medical Studies prescribed by the Faculty of Medicine of Paris compared with that most commonly followed in this Country.

We omitted to mention in our last article that every candidate for the degree of Doctor in Medicine, or for the title of "Officier de Santé," in the French Faculties, is required to pass through a period of service, termed "le stage," in one of the Hospitals in the neighbourhood of the Faculty wherein he is pursuing his studies. This period of the "stage" in the Hospitals commences after the student's eighth inscription—that is, after the end of the second year—and continues to the sixteenth inscription, or to the end of the fourth year. During the accomplishment of the "stage" no inscriptions can be taken unless the pupil is provided with an attestation from the Medical officer in whose service he is engaged, as well as from the Director of the Hospital, to the effect that he has during the preceding three months fulfilled with assiduity the duties which he has been called upon to perform at the bedside of the sick.

Those pupils who are fortunate enough to obtain the appointment of "externe" or "interne" in a Hospital, are permitted to count the time during which they are engaged in either of these capacities for an equivalent period of the "stage."

Having supplied this important omission, we now proceed to contrast the nature and extent of the curriculum of Professional studies, of which we gave an outline in our last article, with the curriculum laid down by most of our own examining bodies.

In the first place we beg to call attention to one important fact; it is this—every one of the subjects included in the official programme of lectures, and forming part of the authoritative curriculum of the French Faculty, is made the subject of *one* or *more examinations*. How is it with us? Let us refer to the regulations of the London College of Surgeons. If we are asked "Why do you select *this* examining body especially for purposes of comparison?" we reply because "there are 3000 Practitioners registered, who possess no other qualification than that of the Membership of the London College of Surgeons." We quote from a speech by Dr. Aquilla Smith in the Medical Council. So long as this is the case we are compelled to take the curriculum set down by this examining body as the standard of Professional education in England. We shall find, if we examine the list of courses, attendance on which is required by the London College of Surgeons, that out of the fallowing subjects—viz., Anatomy, Physiology, Surgery, Medicine, Clinical Surgery, Clinical Medicine, Pharmacy, Chemistry, Materia Medica, and Midwifery, ten altogether—only *three* form the subject of examination—viz., Anatomy, Physiology, and Surgery. And it must be remembered that this limited examination is the *only* test, the only condition which has been satisfied by 3000 *duly qualified Medical Practitioners!* And these are permitted to practise their Profession in all its branches, Medicine, Pharmacy, Midwifery! Every one knows, who knows anything of Medical schools, that attendance on lectures, without examination on the subjects of these lectures, is absolutely worthless as an educational power. We remember being much struck with a remark made by a Professor in one of the largest London Schools, when he was asked as to the attendance of the members of his class: he replied, "They bring their *bodies*." This was a striking and forcible way of stating the bare truth. The system which the College of Surgeons fosters and protects, is such that mere *bodily* presence at certain courses of lectures is all that is required. The *mind* need take no part in the work.

We have stated that the London College of Surgeons examines in three subjects, and we included the subject of *Physiology* amongst them. But practically this branch of the examinations has hitherto been so coldly treated by the examiners, it has been made to play such an insignificant part in the examinations, that scores of men (we speak from personal knowledge) are permitted annually to pass this examination without a scrap of sound physiological information. The terrible significance of this fact is positively alarming, knowing, as every one does, that *rational* Medicine depends on *correct* physiology.

Has it ever occurred to the Council of the College of Surgeons that, owing to the system which they adopt, they are constantly sending out into the world licensed *empirics!* What is the practical effect of this system on both teachers and pupils in our Medical schools? Hear the testimony of one of the most earnest and able teachers of physiology in this city. Dr. Lionel S. Beale, in his introductory lecture to the physiological courses in King's College, published in the *Medical Times and Gazette* of October 5, expresses himself in the following terms:—

"The old plan of depending entirely upon formal lectures still prevails. The student is supposed to listen, but is not asked to *furnish evidence* that he has learnt anything. Teachers are discouraged from teaching, for the great majority of students are not required to learn. Lecturers on certain branches of science have to give a certain minimum number of lectures. If they give more, no one thanks them, and no one inquires whether they teach properly, or whether their pupils can really learn much from the lectures they are compelled to attend. In a few of the Medical classes in this College, we have long adopted the plan of holding a few written examinations; but although of immense value to students, they are not popular, nor are they encouraged by examining boards. They give the teacher increased work, and, as regards the

ordinary pass examinations, are, I fear, almost useless to the students; and yet I am quite sure that, instead of giving a few written examinations in the course of the session, we ought to give a paper in every class at least once a week.

"The student knows, indeed, that he will have to pass an examination at least in anatomy — a *little* Physiology and Surgery, but he is not sure that he will be examined in any other subject, or that his examiners really desire that he should learn chemistry, therapeutics, or Medicine. At the same time, he has some dim notion that it is as well that a man who is to diagnose and treat disease should get up something besides anatomy and Surgery.

"Why a student should be compelled to go through the form of being present at hundreds of lectures on subjects in which it is not considered necessary to examine him, it is most difficult to understand."

Dr. Beale has, in these few pregnant sentences, hit the great blot in our Medical curricula—enforced attendance on lectures without corresponding examinations in the subjects of those lectures. That this system bears very hardly on the teacher is further shown by the same Professor. "The student soon begins to feel aggrieved that the teacher should desire that he should learn very much that will be useless to him when he comes to pass his examination, and considers it an injustice that he should be compelled to enter to courses which are, for the purpose of passing through the portals of the Profession, absolutely useless to him." Dr. Beale deserves our best thanks for so boldly and graphically stating some of the chief evils which hang around our system of Medical education, and which paralyse the efforts of those teachers who, like the eminent Professor of Physiology in King's College, are anxious to make the teaching of Medical science something more than a mere name. We earnestly recommend the perusal of his very thoughtful address to every one who feels an interest in the subject of Medical education.

Who then is content with this system? Where are its apologists? What have they to say in its favour? We know who are its assailants—we know that they include such authoritative names as Huxley, Beale, and Odling, and that dissatisfaction with it is daily growing greater and greater. We must not, however, omit to mention, in justice to the London College of Surgeons, that they have already given notice of their intentions to institute an examination in Medicine for the diploma of Member. This is a step in the right direction; but there is yet much left to be done. We ought then to imitate the French system in this one respect—viz., to examine candidates for diplomas in all the subjects that are introduced into the authoritative curriculum. Whatever may be said against examinations, it must be conceded that they are, after all, the only available means we possess of testing the information of our pupils. That examinations do fail sometimes in the end for which they are designed, we readily admit, but we are by no means sure that this is not the result of a defect in the art of examining—a defect in the examiners. As a rule, sufficient time is not given to the work of examining, and a searching *oral* examination should always precede or follow a *written* one; and if, besides, this examination were made as practical as possible, and the examiners were always selected from amongst those who are actively engaged in teaching, we are convinced that we should have but little to complain of on the score of the failure of examinations to detect ignorance, stupidity, or mere superficial cramming.

The next point to which we desire to call attention in proceeding with the comparison of the French curriculum with our own is the number of examinations which have to be passed by the candidate for a Medical diploma in France. Leaving out of consideration the two examinations that have to be passed for the diplomas of "Bachelier ès Lettres" and "Bachelier ès Sciences," the candidate for the degree of Doctor in Medicine has to pass no less than eight distinct examinations besides the trial of the "Thesis." Of these examinations, three entitled *examens de fin d'année* have to be undergone at the end of the first, second, and third years of study respectively.

This arrangement we think especially deserving of imitation. As to the remaining five examinations for the degree, the *examens de réception*, we imagine that, saving for the convenience of the examiners and the candidates, it would matter little whether there were five examinations or but one. Doubtless dividing a number of subjects over five distinct examinations makes the whole thing much easier for the candidates, and we see no corresponding disadvantage in this plan. On the contrary we think it a great hardship on students to compel them to bring up a great number of subjects for the same examinations. We know that this is very greatly felt in some of the examinations in London, and we would point out as illustrating our remarks in a striking manner the preliminary scientific examination in the London University. The candidate who presents himself for this examination has to be prepared to pass in each of the following subjects:—Chemistry, Botany, Zoology, Practical Chemistry, Natural Philosophy, and Mechanical Philosophy. The consequence is that very many hard-working and able men, who are desirous of obtaining the London degree, are arrested at this stage, their capacity for *cramming* is not sufficiently developed. We are quite sure that most of these men would pass this examination very creditably if they were allowed to bring up the subjects, say, of Botany and Zoology in June, and the subjects of Chemistry and Natural and Mechanical Philosophy a month or six weeks later.

But to return to the *examens de fin d'année*. These are the kind of examinations we ought to institute in this country—an examination at the end of each year. It might be intrusted to the Medical schools to conduct these examinations themselves, although it would no doubt be better that they should be presided over by an independent body. In either case a certificate should be required of every student of having satisfactorily passed such an examination at the end of each year of study before he should be allowed to pass on to the studies of the following year.

There is nothing which would improve the condition of our Medical Schools more than the establishment of a compulsory examination at the end of the *first* year. The least industrious student will be stimulated to work when he has an examination staring him directly in the face, and that tendency to idleness in the first year, which is so constantly complained of by our Medical teachers, would be greatly mitigated, if not entirely removed, if first-year's men knew that there was an examination inevitable at the end of that year, and that they would not be permitted to pass on to the studies of the second year till they had satisfied this test. The adoption of such a plan would, we are convinced, be productive of incalculable good. There need be no difficulty attending it. The staff of each Medical school might be required to institute an examination in the studies of the first year, embracing a limited portion of anatomy, bones, muscles, joints, elementary physiology, and applied chemistry. Or any one of the existing examining boards might undertake this work.

We would most earnestly solicit the attention of the Medical Council to this point, and we urge its members, whatever other reforms they have in view, to make this a primary one—viz., the establishment of an examination at the end of the first year. It would be an immense help both to teachers and pupils.

In the next place we proceed to notice the nature and extent of the subjects which are included in the French curriculum, and in what respects they differ from the courses given in our Medical Schools. We find, amongst the studies of the first year, the "Application of Physics, Chemistry, and Natural History to Medicine." We have no corresponding subjects in our curriculum, and for very good reasons. They involve some previous knowledge of the general principles of physics, chemistry, and natural history, and so long as pupils are received into our Medical Schools without any such preparatory information, we cannot undertake to teach them the bearing of those sciences on practical Medicine; and yet, as Professor Odling observes in the lecture we alluded to in our last article, these are precisely the very portions of those subjects which ought to form part of our Medical courses, while lectures on the first principles of chemistry and natural history, such as are given in our Hospital Schools, rather interfere with than promote the cultivation of Practical Medicine. We presume no one will be so bold as to assert that it is of little importance that the Medical men of the present day should be ignorant of the bearing of natural science on Medicine. The general public are daily taking more and more interest in this matter, as it especially concerns the preservation of health, and they look to their Medical attendants as their natural advisers in a subject of this kind. If they find them ignorant where they should be well-informed, the natural result will be a loss of confidence in, and a general contempt for, our common Profession.

These are considerations which merit more serious attention than they have hitherto received from those who are presumed to preside over the destinies of the Medical Profession.

Another point worthy of imitation is that the French

Medical student is not required to attend Hospital practice during his *first* winter. Utterly injudicious is the requirement of the London College of Surgeons that the first year's student should attend Surgical Hospital practice. It takes him away from studies which are already too heavy for him, and sets him to follow that which he cannot possibly understand. In the first summer the students might here, as in France, be encouraged to attend out-patient Surgery; but to introduce them into the wards of a Hospital before they have learnt a scrap of anatomy, physiology, or any other subject bearing on Medicine, is a folly the existence of which it is difficult to account for.

We have already alluded (in our second article) to the superior consideration and fuller development which is given to the subjects of general pathology and general therapeutics in the French school. We have also taken occasion to point out that by the establishment of salaried professorships of Clinical Medicine, Surgery, and Midwifery, clinical teaching is much more efficiently carried out in this school than in our own.

There is another subject which deserves a place in our curriculum, which at present is kept out in the cold; we allude to the subject of "hygiene." In the French Faculty it takes a conspicuous position in the studies of the fourth year, and forms one of the subjects of the fourth examination for the Doctor's degree. It is true that we may find in the regulations of the London College of Physicians the following reference to the subject in question:—"It is required that the principles of public health should be comprised in the course on the principles and practice of Medicine or in the course of lectures on Forensic Medicine;" and again we find in a recommendation of a committee of the General Medical Council, "Forensic Medicine should include the principles of hygiene." This is truly absurd. The professor of Forensic Medicine has to treat this extensive subject in a summer course of about twenty lectures, and he is invited to interpolate in this course, already much too brief for his purpose, the principles of hygiene; or the professor of Medicine, who has to struggle hard to get anything like a decent *résumé* of the immense amount of matter with which he has to deal into his six months' course, is requested to add to his already overwhelming burden the consideration of the "principles of public health!" Either requirement is equally impossible, and in practice is, as far as we know, never attempted. Yet how inconsistent are we in this matter of public health. We are eternally scolding the government as well as various corporate bodies for not appointing a sufficient number of Medical Officers of Health and not giving sufficient importance to this great subject, and yet we banish its consideration from our Medical schools, and while we urge the public authorities to employ Medical men as guardians of the public health, we make no effort, we take no steps to teach the first principles of this subject to those who are hereafter to be instructed to deal with the difficult problems which are constantly arising in civil life in connexion with this subject.

There is another characteristic of most of the curricula established by our examining bodies which we cannot approve of. We allude to the requirement of attendance on *duplicate* courses. The College of Surgeons require *two* courses of Anatomy, *two* of Physiology, *two* of Surgery. The Apothecaries' Hall requires the same (except Surgery), and, in addition, *two* courses of lectures on the principles and practice of Medicine. The same remark applies to the curriculum of the London College of Physicians.

Now, if each course were devoted to a distinct and different feature of the same subject, we should not have a word to say against this requirement. But when we know that in each course just the same ground is gone over, or with some slight additions or omissions, we are bound to protest against this unjustifiable waste of time. That our experience in this respect does not differ from that of others, is shown by the following extract from a speech of Sir J. D. Corrigan in the General Medical Council:—"In some Colleges three courses of systematic lectures on one subject are required; and the wonderful part of it is, that these lectures, year by year, are precisely the same—the same course, the same lecture delivered on the same day, and on the same subject. I know myself of instances where a clever student has got into the lecture-room before the lecturer has arrived, and has marked on the black board the subjects to be produced, and the very illustrations which the lecturer was to give."

And, after all, it is a matter of very great doubt whether such subjects as Anatomy, Surgery, and Medicine are *best* taught by means of formal courses of lectures. Yet these are the very subjects which our authorities select for duplicate courses—as if the importance of a subject were to be measured by mere repetition of courses of lectures upon it. But the greatest anomaly of all is that, while the student is compelled to listen to two or more precisely similar courses on certain subjects, other subjects, such as Midwifery, Materia Medica and Therapeutics, Botany, Forensic Medicine, are cramped up into a single course of less than three months; while other subjects, such as Morbid Anatomy, General Pathology, Hygiene, etc., are excluded altogether, partly, no doubt, for want of time.

Every one admits that the Medical student is overwhelmed with lectures, and nothing can exceed the tedious weariness of having to listen to these double courses. By the abolition of this requirement of the examining boards the students of the second winter would save about *three hours a day*. Imagine the value of these three hours to a working man, thus daily wasted in useless attendance on lectures. How much more profitably might they be devoted to such subjects as hygiene, therapeutics, and pathological anatomy? We sincerely trust that the Medical Council will early see the necessity of issuing some recommendation on this point.

We shall conclude this article with an extract from a pamphlet of Professor Bennett's:—"The Profession is now waiting for an authoritative statement from the Medical Council as to what the Professional curriculum shall be. Instead of a uniform and national Medical education for the country at large, a student is still called upon to consider which out of the multifarious systems put before him he ought to follow, or how he shall steer his course that while qualifying himself for his examination at one board he does not disqualify himself for examination at another."

It has appeared to us that by comparing the systems followed in other countries with that adopted in our own, we might be enabled to lend some assistance to the satisfactory settlement of this much debated question.

We have yet to deal with "methods of teaching" and "methods of examining." This we shall do in our next.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

Delivered at the Museum of Natural History, Paris.

(Continued from page 607.)

The present article is devoted to the consideration of that part of M. Vulpian's course of lectures which treats of *reflex actions* (namely, Lectures 18, 19, and 20). Until the last few years, physiologists regarded the myelencephalon, or central nervous axis, as an organ indispensable for the performance of every reflex action; but the recent experiments of Bernard have shown that the ganglia of the sympathetic system may act, altogether independently of the central axis, as centres of nervous reflex action. At present, however, we shall confine our remarks exclusively to those reflex phenomena which are due to the action of the spinal cord.

As a general rule, reflex actions originate from some other nervous centre than the brain, and consequently take place without the intervention of the will. There are, however, reflex actions in which the brain plays a certain part, but in these, which may be termed reflex phenomena with conscious sensation, the brain takes merely a secondary part, sensation being a superadded phenomenon. For example, the winking of the eyelid on suddenly placing the finger or any other body close to the eye, takes place both when the brain is intact and also when it has been materially affected by injury or disease.

Our older readers cannot fail to recollect the prolonged and somewhat acrimonious discussion on the subject of Dr. Marshall Hall's claims in relation to the subject of reflex action, which took place about a quarter of a century ago. There can be no doubt that many of the commonest examples of reflex action had been recognised and described long before Dr. Marshall Hall's time; but that fact in no way detracts from the most important additions he made to this department of science, his practical application of known isolated facts, and his arrangement of those facts in one great philosophic scheme. He claimed too much, and, as a natural consequence, his scientific opponents awarded him less honour than he was actually entitled to. There can be no doubt

that many of the most important facts on which his excito-motory system was based were known to Whytt,(a) Prochaska, and other physiologists of the last century. In a memoir published in 1784, Prochaska described a considerable number of reflex phenomena, and termed them *impressionum sensoriarum in motorias reflexio*. He gives, for instance, the well-known case of the decapitated frog, which, on irritation of its toes, withdraws the irritated limb; the closure of the eyelids when any object is suddenly brought near the eye, the sneezing that follows irritation of the mucous membrane of the nostrils, the coughing that is excited by a particle of food or a drop of fluid making its way into the air passages, the vomiting that is excited by tickling the pharynx, and even the second stage of deglutition—that, namely, at which the alimentary bolus reaches the level of the isthmus of the fauces. New discoveries on this subject were made in 1812 by Legallois while studying the influence of the medulla oblongata and spinal cord on respiration. One of the most interesting of the various detached discoveries on this subject was made in 1823 by Herbert Mayo, who found that the contraction of the pupil, or rather of the iris, which is induced by the exposure of the eye to a bright light, is due to reflex action. He found that after section of the optic nerve light ceased to produce this effect, while, on the other hand, contraction of the pupil could still be induced by exciting in any way the central end of the optic nerve. These illustrations are sufficient to show that the phenomena of reflex action had been made the subject of careful study before the attention of the Profession was especially directed to this department of nervous physiology by the publication (in or about 1833) of the works of Marshall Hall and J. Müller. But it is to these physiologists, and especially to the former, that, as M. Vulpian observes, science is indebted for giving to reflex phenomena their proper place in the nervous physiology generally, for showing the extensive part they take in the processes of animal life, and for applying them to the explanation of various morbid processes.

In his discussion of this subject M. Vulpian adopts the classification of M. Longet, and divides reflex actions according to the muscles called into exercise. Hence, they are at once broken up into two great groups—viz., A, *the reflex movements of the muscles of animal life;* and B, *the reflex movements of the muscles of organic life*—each of which may be conveniently subdivided according to the sources of irritation. Thus, the first group may be arranged under (*a*) reflex movements of the muscles of animal life consequent on irritation of the sensory cerebro-spinal nerves, and (*b*) similar reflex actions produced by irritation of the nerves of the great sympathetic. In the first division (*a*) of the first group A we have the most simple and the best known of the reflex actions. In animals in which the connexion between the brain and spinal cord has not been interfered with, the reflex actions are less readily studied than after decapitation or pithing, since the results are more or less liable to be interfered with by sensation and volition; but the cases previously noticed as having been observed by Prochaska suffice to show that such movements may take place not only without the intervention of the will, but even in despite of it. To these cases M. Vulpian adds the respiratory movements induced by dashing cold water on the face, the spasmodic contraction of the thoracic muscles occasioned by the affusion of cold water on the chest, the closure of the eyelids under the stimulus of a loud and sudden noise, the movements of the legs when the soles of the feet are tickled, etc. From this well-known class of cases we turn briefly to the second division (*b*) of the group A. Here irritation conveyed along the system of the great sympathetic is transmitted by the intervention of the spinal cord to muscles under the influence of the cerebro-spinal nerves. The convulsions of infants in consequence of irritation of the intestinal canal, and the puerperal convulsions at the commencement of the act of parturition, must be thus explained. As examples of the first division (*a*) of the second group B, in which movements of the muscles of organic life are called forth by sensory cerebro-spinal nerves, M. Vulpian quotes (1) the increased secretion of tears under the influence of any irritation of the conjunctiva or nasal mucous membrane; (2) the increased flow of saliva that follows the introduction of any substance, and especially a sapid body, into the mouth; (3) the flow of gastric juice that follows the act of swallowing, as seen in cases of gastric fistula; (4) the dilatation of the vessels which takes place by reflex action in a part of the body submitted to sharp irritation—as, for example, the congestion of the conjunctiva that is occasioned by the introduction of a foreign body between, or beneath one of, the eyelids; and (5) contraction of the seminal vessels as a consequence of irritation of the nerves of the penis. As examples of the second division (*b*) of the second group (B), in which movements of the muscles of organic life are called forth by irritation of the nerves of the great sympathetic, M. Vulpian notices the changes in the diameter of the pupil in certain intestinal affections, and especially under the influence of the irritation produced by intestinal worms; and the fact that during the digestive process all the products of secretion, which are poured into the different parts of the intestinal canal are carried onwards in consequence of reflex actions induced by the contact of alimentary matters. The following experiments on this subject are probably new to most of our readers:—"If we pinch any part of the intestine of a decapitated frog, we excite contractions along the whole intestinal tract; while, according to Volkmann, if the cord is destroyed, contractions are only excited at the seat of irritation. But the experiment does not yield exactly the result indicated by Volkmann. When the intestinal canal is separated from the body of the animal, we do not observe contractions exclusively at the irritated point; the movement is propagated to the neighbouring parts. We must not, however, conclude that the excited movement is propagated without the intervention of any reflex actions, for we know from the observations of Meissner and Auerbach, that there is a large number of nervous cells between the coats of the intestine, and it is clear that these cells must serve, in this case, as centres of reflex action. Hence the intestine carries in itself its own centre of reflex action, as in the case of the heart, which possesses analogous cells forming the *ganglia of Remak*."

The most simple cases of reflex action—as, for instance, that of a decapitated frog withdrawing its limb when one of the toes is pinched—are not so uncomplicated as might have been assumed. There is always an irradiation of the excitations in the grey matter of the cord; for the number of motor fibres called into play unquestionably exceeds that of excited sensory fibres, as is proved by the fact that the whole leg of the frog is quickly retracted under the influence of the irritation of a single toe. The phenomena which are excited vary in extent with the degree of excitation. If the latter is considerable, influence will be exerted on both halves of the cord, and reflex action will be observed on the limbs of both sides; while if the excitation be excessive (*très forte*), the irradiation will be more extensive, and the motor reaction will be conveyed along a still larger number of nerves. In illustration of the truth of this statement, M. Vulpian forcibly compresses with the forceps one of the toes of a hind leg of a decapitated frog. As an immediate consequence movements of all four limbs are induced; hence there must have been an irradiation of the irritation throughout the greater part of the length of the cord, and the reaction is produced by all the nerves proceeding from the nervous centre to the limbs. From this and similar experiments M. Flourens has been led to regard the spinal cord as the *organ of the dispersion of irritations*.

This lecture (the eighteenth) concludes with the following summary of what may be regarded as established facts in connexion with reflex phenomena:—(1) Every reflex phenomenon requires for its manifestation the intervention of three organs: (*a*) A centripetal conductor, consisting of sensory or excito-motory nervous fibres; (*b*) a centre of reaction—namely, the grey matter of the spinal cord or the ganglionic cells in the ganglia; and (*c*) a centrifugal conductor, consisting of motor nervous fibres. (2) There must be an easy communication of the centripetal excitations to the motor fibres originating in the part of the grey matter near the spot to which the excited fibres proceed. (3) There is always a tendency to a certain degree of diffusion of the excitor-motor irritations, and this

(a) An excellent account of the life and works of Robert Whytt, who was born in 1714, received the degree of Doctor of Medicine from the University of St. Andrews in 1737, was appointed Professor of Medicine in the University of Edinburgh in 1747, and died 1766, has been lately published by Dr. Seller in the *Transactions of the Royal Society of Edinburgh*, vol. xxiii. 1862. We extract the two following sentences, showing the value which Dr. Seller attaches to Whytt's labours:—"If the sum of Whytt's doctrine be that an impression conveyed by nerves to the central nervous organs excites involuntary animal movements, by a physiological necessity, without reason, intention, or consciousness, what is that doctrine but a comprehensive expression for the reflex action of the spinal cord and brain?" (P. 2.) "Prochaska differs from Whytt in excluding the cerebrum and cerebellum from any share in the function of reflex action; and while his language is not the same as Whytt's, he is essentially of the same way of thinking with Whytt." (P. 17.) M. Vulpian regards Prochaska as the originator of this line of inquiry, and hence it might be supposed that he was unacquainted with Whytt's writings. That this is not the case is, however, obvious, as he more than once makes reference to them in a future lecture.

dispersion *may* be very extensive. (4) The grey matter of the cord is the organ of the dispersion or generalisation of the irritations.

One difficulty remains unexplained—namely, How do the centripetal excitations become transformed into centrifugal excitations? Can we admit with many physiologists, asks M. Vulpian, that the grey matter is endowed with a special physiological property—namely, a reflex property? Can we attribute such a physiological property to the grey substance of the cord *en masse*? To these questions he replies decidedly in the negative, for reasons which do not seem to be very satisfactory, although we agree with him in his conclusion (see p. 413).

(To be continued.)

FOREIGN CORRESPONDENCE.

GERMANY.

Frankfort, November 4.

I TO-DAY continue my report of the proceedings of the Annual Congress of German Naturalists and Physicians. In the section for Medicine, Professor Kussmaul, of Freiburg, spoke on the mechanical treatment of dilatation of the stomach, which he had used in three patients who had been under his care. It consisted of the introduction of bougies, emptying the stomach by means of a Weimann's sucking-pump, and subsequent cleaning out with Vichy water. In simple gastrectasis he thought this proceeding a radically curative one, and even where the affection was due to malignant disease, it gave considerable relief. Professor Bartels, of Kiel, thought that dry diet was the best means for effecting a diminution in the weight and size of the stomach. Professor Köhler, of Tübingen, introduced a case of dilatation of the stomach cured by the tincture of iodine, two drops of which had been given three times a day, and explained the action of iodine by its influence in diminishing the swelling of the mucous membrane of the stomach.

Professor Bartels, of Kiel, gave a contribution to the physical diagnosis of valvular disease of the heart, by drawing attention to the occurrence of a diastolic concussion, in lieu of the heart's impulse, which he had observed in certain cases of stenosis of the ostium venosum sinistrum, and which was connected with a diastolic double sound, while in such cases there was no diastolic bruit. He believed the diastolic impulse, in the place of the apex cordis, and the second louder diastolic sound, to be the result of the tension and the vibrations of the mitral valve, the elasticity of which was not diminished; since he had discovered that in such cases the stenosis was merely caused by the growing together of the several edges of the valve.

Dr. Lorey related the case of a young man in whom, during rheumatic fever, a systolic bruit had come on in the left heart, without further auscultatory signs of heart disease, and had persisted after recovery, being connected with irregularities in the heart's action, dyspnœa, etc. After it had existed for six years the patient got ague, and since then the systolic bruit had entirely ceased.

Dr. Jürgensen, of Kiel, spoke on the treatment of typhoid fever by systematic withdrawal of heat. He asserted that by this method far better therapeutical results could be obtained than by other modes of treatment. In the University Hospital of Kiel 225 cases of fever, amongst which were 139 severe ones, had thus been treated, and there had been only six deaths, while formerly the mortality had been 15 per cent. He recommended the use of cold full baths, which diminished the temperature much more strikingly and permanently than the repeatedly given tepid baths, and said that quinine, used in conjunction with these cold baths, was a very valuable remedy. He had found that the curve of animal heat during the twenty-four hours, in the normal condition, was in all essential points identical with that of typhoid fever; that the reaction against withdrawal of heat, at different times of the day, was the same in both conditions, and varied according to the time of day; that quinine, taken by a healthy man, caused a diminution of heat only in the commencement of its use, and for a few hours merely. The daily mean of temperature, which had been measured every five minutes, was not diminished by the use of the quinine. On the other hand, the course of the curve was changed by it, inasmuch as it was made to approach a straight line. The action of quinine in decreasing the temperature was much more considerable in typhoid fever than in health, but it was not possible to procure a permanent decrease of heat by repeated administration of the drug. In private practice quinine was chiefly valuable by rendering a frequent repetition of the cold baths unnecessary, as, if given after the cold baths, it had a decided effect in checking a rapid rise of temperature.

In the discussion which followed the reading of this paper, Professor Ziemssen, of Erlangen, said that his experience on the use of the full cold baths in fever agreed with that of Dr. Jürgensen. The bath, with gradually reduced temperature, was the best treatment of fever; but it was indispensable that strict quiet should be observed after taking the bath. The effects of the bath were to reduce animal heat; to make the "typhomanic" look of the patient disappear, at first for a short time, but afterwards for a longer time; decubitus and intestinal hæmorrhage were not nearly so frequent; the average duration of the disease was shortened, and the danger of its sequelæ was diminished. The baths should, however, not be used if there were hæmorrhage from the gut. Dr. Obernier, of Bonn, thought that we ought not to be too sanguine as regards the capabilities of this treatment. The mortality varied considerably in different epidemics, and the statistical results hitherto obtained did not prove the case. He was also in favour of the withdrawal of heat, but only in cases where the excessive increase of temperature seemed to constitute the immediate danger in which the patient's life was placed. He attached value to the baths, because they insured cleanliness and prevented decubitus. Dr. Varrentrapp, of Frankfort, believed it to be impossible to cut fever short by withdrawal of heat. Baths which were lower than 77°, and lasted longer than seven minutes, were badly borne by the patients. He had not been able to perceive any diminution of the mortality by the cold-water treatment. Professor Liebermeister, of Basle, agreed with Dr. Jürgensen and Professor Ziemssen. In Basle, where the epidemics of typhoid fever were of a graver character than in Kiel, the mortality had been from 25 to 29 per cent. previous to the use of the cold-water treatment, and now it was only half of that. The use of cool full baths, repeated as soon as the temperature in the axilla had risen to 102°, was now universally adopted, even in private practice, in that city. Dr. Jürgensen and Professor Ziemssen then replied to the objections raised by Dr. Obernier, after which the subject dropped.

Dr. Benedict, of Vienna, spoke on the differential diagnosis of the several kinds of facial palsy, especially on that form which is caused by an affection of the nucleus of the portio dura, which, when it occurs without other affections of nervous matter, may appear identical with rheumatic palsy, and is only recognisable by abnormal reflex phenomena. He then spoke about those cases where facial palsy occurs, combined with deafness, after severe injuries, where there was hæmorrhage from the meatus auditorius externus, and where various symptoms made it probable that there was also hæmorrhage at the bottom of the fossa rhomboidea. Double facial palsy was chiefly observed in progressive paralysis, and in other chronic cerebral diseases where, from the gravity of other symptoms which excited more attention, it was frequently overlooked.

Professor Friedreich, of Heidelberg, spoke about profuse hyperostosis, and introduced a patient whose every bone appeared to be invaded by this affection. It was a man, aged 26, in whom, eight years ago, without any apparent cause, the bones of the feet began to thicken; those of the legs and thighs followed suit, and within two years even the upper extremities became similarly affected, more especially the hands, which had attained a monstrous size. The disease then spread to the ribs, the sternum, the collar-bones, the shoulder-blades and pelvic bones, the vertebral column, the hyoid bone, and the zygomatic, palatine, and alveolar processes. The cartilages of the ears, eyelids, nose, and epiglottis, were similarly thickened. Everywhere, however, the bones were perfectly smooth, and there were no tuberosities or exostoses. The development of this affection proceeded gradually and painlessly, and could only be looked upon as a manifestation of a "diathesis ossifica." Within the last few years the affection seemed to have become stationary. A brother of the patient had the same disease, and got it in the same progression, commencing in the feet, and thence gradually proceeding upwards, but in him the cartilages were healthy. The other six brothers and sisters were unaffected. The father was said to have died of consumption; the mother was still alive and quite well.

Dr. Rühle, of Bonn, spoke about diseases of the thyroid body. In Basedow's or Graves's disease, there were always

three prominent symptoms; but there were cases in which only two occurred—viz., hypertrophy of the thyroid and excitement of the heart's action, or affection of the thyroid with cerebral symptoms.

Professor Virchow remarked that recent observations seemed to show a twofold mode of origin of Basedow's disease, inasmuch as there was either a primary neurosis which caused hyperæmia of the orbit and the thyroid body, with vascular dilatation, and, finally, hyperplastic processes of the glandular tissue; or the changes in the thyroid tissue appeared to be the primary element, and the neurosis was only a consequence of the same.

Professor Ziemssen spoke on the determination of the size of the spleen and the apex of the lungs by percussion. Up to the present time, the patient, whose spleen was to be explored, had always been placed on the right side. This position, however, was not a suitable one, as the dilatation of the full stomach and the edge of the lung, by partially covering the spleen, rendered an accurate measurement of the latter difficult or impossible. More than 300 examinations had shown him that the erect position was the best for the purpose. In healthy persons—that is, where the spleen was not enlarged—the size of this organ might be determined within one or one and a half centimetres, as shown by a number of post-mortem examinations. The figure drawn of the spleen of a person examined while lying on the right side was always lower down, and slightly more to the front, than that which was found by examination in the erect position. The speaker showed photographs of the results of percussion in both instances. The method was equally applicable to children as to adults. Where there was a tumour of the spleen, the results of the examination were not so perfect as where the spleen was not enlarged.

The measurement of the height of the apex of the lungs was best accomplished by drawing a line from the apex, found by percussion, to the extreme end of the acromion of the same side, but not by vertical measurement. The objection which might be made to thia—viz. that inequalities in the formation of both sides might deprive these results of value—was not tenable, as such inequalities were very rare indeed. The difference in the height of the apex in healthy persons might amount to from nine to seventeen centimetres. The flattening in patients with affection of the apex amounted to from two to three centimetres; a difference of only one centimetre between the two sides was irrelevant. Professor Ziemssen used in his researches a cuneiform plessimeter, which, for determining the boundaries between organs, was superior to any other.

Dr. Knauff, of Heidelberg, communicated his observations on miliary tuberculosis of the serous membranes. He made dogs inhale very finely pulverised charcoal; after which, he noticed that small grey nodules appeared in the pleura, the localisation of which, as well as their behaviour in the earlier and later stages, led him to the conclusion that they corresponded to the places of absorption of the serous membranes. The nodules were deposited in the lymphatic spaces. The histology and history of these nodules showed that there was great similiarity between them and tubercle, and he was not inclined to allow the specific nature of the latter.

Dr. Baxt, of St. Petersburg, spoke on the action of some of the alkaloids found in opium. His experiments had shown that thebaïne was a poison analogous to strychnine, and caused tetanus, while papaverine had purely hypnotic effects, which were much more strikingly manifested than those of morphine. Porphyroxine, on the other hand, seemed to occupy an intermediate position between the two alkaloids just named. Professor Köhler, of Tübingen, thereupon remarked that in the lower animals all the alkaloids of opium caused tetanic phenomena, and that he doubted the presumed analogy between thebaïne and strychnine. Experiments with papaverine gave inconclusive results, because it was extremely difficult to procure the pure alkaloid. Dr. Baxt replied that his experiments had been made in Professor Brücke's laboratory, with preparations obtained from M. Merck, and that the constancy of the results obtained did not allow any doubts to exist in his mind concerning their accuracy. The effects of thebaïne were, indeed, not merely analogous to those of strychnine, but absolutely identical with the same. Professor Traube, of Berlin, mentioned that he had, in his experiments on animals, observed for some considerable time decidedly hypnotic effects produced by the acetate of morphia, while, at a later period, the same preparation, procured from the same chemist, had seemed to cause a great increase of reflex excitability. Later again, he found that morphine did once more produce hypnotic effects. He concluded from these observations that, if one wanted to make exact experiments with these alkaloids, it was necessary to prepare them oneself, as those obtained in commerce could not be warranted to be pure.

Professor Kussmaul, of Freiburg, then spoke of paracentesis of the thorax. He said that there was no operation which had been so differently judged of in the course of time. Having been performed by Hippocrates, it had afterwards met with great favour on the part of some, and with great hostility on the part of others. It was only more recently that, in consequence of the progress made in physical diagnosis and Surgical procedures, the operation had gained staunch friends in pleurisy, although neither the indications for it nor the mode of proceeding were as yet firmly established, and the majority of Medical Practitioners were still somewhat averse to the operation. Professor Kussmaul had himself performed or advised paracentesis in eighteen cases, and collected 300 more from the literature on the subject, which had led him to the following conclusions. The mode of proceeding ought to depend upon the condition of the effusion. If, in consequence of a large quantity of serous effusion in the pleural sac, there was danger to life from suffocation or syncope, a portion of the effusion must be removed, at least so much of it as to allow respiration and circulation to be re-established; for which purpose sometimes only a small quantity, but in other cases a large proportion, would require to be evacuated. The operation was best performed by means of a fine trocar. The results were better if only small quantities were removed than if a large or complete evacuation was made. In the same way the gradual evacuation was more favourable than the sudden withdrawal of liquid. In order to avoid the entrance of air into the cavity of the chest, the instruments constructed by Reybard or by Schuh should be employed. He knew of two cases in which, owing to the entrance of air, death took place almost immediately after. It had been asserted that, wherever there was a large quantity of effused liquid, the operation ought to be performed, because danger to life by syncope or suffocation might be caused at any moment. The operation had also been recommended for effusions of medium amount, for the purpose of accelerating the course of the disease, promoting absorption, and preventing tuberculosis. He had no settled opinion as yet on the value of the operation under such circumstances; but he did not look upon the results hitherto achieved in those cases as very encouraging. Everything depended upon the question whether paracentesis involved less danger than the disease if left to itself. It was far different with purulent effusions. Such might also be present in quantities sufficient to threaten life by suffocation, and then, as a palliative remedy, paracentesis might be performed; but it was of no permanent use, owing to the liability of the effusion to be reproduced and absorbed into the system. The evacuation of the pus *in toto* was here necessary, and this could only be done by making a large opening for its evacuation, and subsequent injections, for instance of sulphite of soda in an infusion of chamomile. In incurable cases of pyopneumothorax, tapping often gave considerable relief for the time. Of the eighteen cases which had fallen under his own observation, the operation had saved life and re-established health in six.

Professor Traube agreed with Professor Kussmaul as regards purulent effusions, but believed that an incision was better than tapping. In England the value of combining paracentesis with drainage had been insisted upon. He advised the operation for serous effusions, where there was considerable danger of suffocation or syncope; but the operation was also valuable for recent cases, in which there was no *indicatio vitalis*. It was, however, necessary to make sure not to do it while there was still active inflammation, as otherwise a repetition of the operation would be necessary. It should, therefore, never be performed before the end of the third week. In pleurisy the inflammation lasted always much longer than was generally assumed, and even in the fifth or sixth week it was often possible to show that it still continued, partly by thermometric investigations and partly by the local pain caused by pressure on the intercostal spaces. It was also very important not to withdraw the liquid suddenly or in any large quantity. The maximum which might be evacuated at a time was 1500 cubic centimetres. If the liquid was rapidly removed, there was danger of acute œdema of the lungs or of disruption of pulmonar tissue. He thought Reybard's instrument, connected with a small membranous tube, the most useful one for the operation, which, taken by itself, was quite devoid of danger on account of the insig-

nificance of the lesion made. It was of importance to pursue an antiphlogistic treatment after the operation, since, by the pressure being removed, an exacerbation of the inflammation might otherwise take place. This was probably the reason why it had been frequently observed that, after the withdrawal of the serous effusion, a purulent liquid was formed in the cavity of the chest. As regards the entrance of air, this was chiefly to be feared in such cases where the solid parts, which had for a considerable time been put out of their equilibrium, had consequently lost their elasticity, and therefore exercised less pressure on the contents of the pleural sac than the atmosphere. In such cases, after the incision no liquid would come out spontaneously, or if it did come out it was only a very small proportion, and it was necessary to make the patient cough in order to promote the evacuation. It was therefore better for all old cases to employ an instrument furnished with a valve.

GENERAL CORRESPONDENCE.

A NOTE ON PHYSIOGNOMICAL DIAGNOSIS.

LETTER FROM PROFESSOR LAYCOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read Dr. Corfe's "Observations on a new Method of illustrating Diseases by Physiognomic Portraits" with much interest, and have to thank him for calling attention to my lectures, published in consecutive numbers of your journal from January to June, 1862. My chief object, however, in this note is to correct an error into which Dr. Corfe has fallen of practical importance. He indicates the subject of my lectures as the Physiognomical Diagnosis of *Temperaments;* whereas, they were on the diagnosis of *Disease*, and only touch lightly on the former in relation to *diatheses*. Neither is my chief object the diagnosis of diseases of organs, as is Dr. Corfe's, but of the blood and tissues—*i.e.*, diathetic diagnosis. For example, I teach in those lectures the diagnosis of scrofulous, tubercular, syphilitic, rheumatic, and hæmorrhagic *phthisis*, as diathetically distinct forms of the group of pulmonary diseases so named. Again, when purpura hæmorrhagica complicates certain cases of acute rheumatism, I teach that this is probably due to a rheumatic splenitis, the seat of which is the trabeculæ of the spleen, a tissue diathetically analogous to the cardiac tissues. This method of physiognomical diagnosis is fundamentally different in principle from the diagnosis of vague temperaments, and of diseases of organs, long in use and practised almost instinctively by most people, inasmuch as it is founded upon the fundamental laws of nutrition and development, and includes a knowledge of both the physiological and pathological anatomy of the blood and the tissues. It also implies corresponding general laws of therapeutics, as, for example, when a syphilitic diathesis is diagnosed, physiognomically the general treatment is the same, whatever organ or viscus may be involved, because it has regard, not to any particular organ or viscus, but to a particular kind of degeneration, involving a general or elementary tissue found in different or several organs, and in diverse structures. This diathetic diagnosis rests also upon the fundamental laws of embryology and morphology, and indirectly on comparative and ethnological anatomy—on embryology, as to the general laws of evolution of the primary tissues; on morphology, as to the form and development of parts. Dr. Corfe will find an example in the lecture of March 22, 1862, in which the ear of dements is compared with the ear of a chimpanzee: these the printer, however, has printed upside down.

Dr. Corfe asks in a note how it is that the Scotch school has taken the lead in this useful study—witness Bell, Conolly, and myself. I do not think the Scotch school has taken the lead. I never studied at Edinburgh; I carried any knowledge I had to Edinburgh. I was a student of the old University of London, and a pupil of Bell at the Middlesex Hospital, but I did not get my knowledge specially from that great man. He was a wonderful draughtsman and an attractive speaker, but his doctrine and matter did not differ otherwise as to diathetic diagnosis from what was then current. I think, at that time, Surgeons dwelt almost exclusively upon the scrofulous diathesis, as he did. He was certainly a master in delineating the physiognomical expression of injuries—witness the series of water-colour drawings illustrative of wounds received at the Battle of Waterloo, generously presented to the Army Medical School by his widow, and of which a most interesting description has been lately written by Professor Longmore Conolly's illustrations of insanity were exceedingly well photographed by Dr. Diamond, and were selected with great judgment; but that had no regard to the Scotch school, unless it be the Edinburgh Phrenological, headed by George Combe. Fifty years ago or thereabouts, Esquirol published a series of graphic engraved portraits of insanity. And Dr. Corfe will pardon me expressing a difficulty I have experienced in recognising his method as a new one. I need only mention one work of the kind on his method amongst others—viz., Baumgärtner's "Physiognomice Pathologica," published at Stuttgart in 1838, with a folio atlas of coloured physiognomic portraits.

There can be no doubt of the value of physiognomic diagnosis so well practised by Dr. Corfe. I teach it systematically at the bedside. It appears to me a natural method. I think, too, that a Practitioner had much better look well at his patient, if not hear him speak, before putting the formal initial question "Where is your pain?" But this looking and listening is an art—an art, too, not attainable by all, and which can hardly be taught except from the living breathing subject.

It is a matter of gratification to me that the London school is not neglecting diathetic physiognomical diagnosis. Mr. Canton's researches into the atheromatous diathesis are valuable. Mr. Jonathan Hutchinson has done excellent service in defining so exactly the physiognomical signs of the syphilitic diathesis, and which have the concurrence of so scientific a master in his art as Mr. Paget. I am happy to note, too, that my friend Dr. Hughlings Jackson is ably teaching the advantages of diathetic diagnosis in diseases of the nervous system. Nor must I omit to mention the rising names of my friends Dr. Wilks, of Guy's, and of Dr. Clark and Dr. Sutton, of the London Hospital, amongst those who recognise the value and importance of this scientific method of inquiry. Diathetic diagnosis is still young, and imperfect because it has a wide field to cover; but even now it promises to give as much precision to therapeutics generally as physical diagnosis has developed specially in regard to organs.

Edinburgh, Dec. 16. I am, &c. T. LAYCOCK.

DR. CORFE ON MEDICAL PHYSIOGNOMY.

LETTER FROM DR. C. B. SUCKLING.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr Corfe may be interested to learn that in a course of lectures delivered in the theatre of Queen's College, Birmingham, in the years 1849 50, by Dr. Nelson, the opening lecture was on the "General Physiognomy in Disease," and was published in the *Provincial Medical and Surgical Journal*, February 5, 1851. I mention this fact to show that the study of Medical physiognomy has not been so totally neglected in the provinces as Dr. Corfe seems to suppose, that its importance has at least been recognised in one school, and that his statement "that the study of physiognomy is scarcely recognised in any of our large metropolitan schools, and totally neglected in others," does not apply to Queen's College, Birmingham.

As the number of the journal in which the observations alluded to were published may not be of easy access to all your readers, the following extracts will show that the subject was handled, not in a loose, but in a decided manner, referring even to minutiæ regarding the transverse, in contradistinction to the perpendicular, wrinkles over the nose, etc. For instance, Dr. Nelson states that when they are found in the young they are seldom to be attributed to any idiopathic irritability of temper, but are to be observed under the organic sufferings of typhus and other stupefying diseases; in all internal chronic ailments which involve organs not associated with much cerebral sensibility, as the liver and lungs. They may, then, be as marked in children of a few years old as in the aged and infirm.

Again, the lateral wrinkles are of much less consequence in a Medical point of view, though they may be a familiar index of age, of toil, of anxiety, of dissipation, or of any diminished plumpness. Dr. Nelson also points out the *criteria* furnished us, by which we may judge of certain constitutional affections, by the brow, the eyes, the mouth, and many other points in the physiognomy or general expression of the body under disease.

There is a further sign of disease of this kind mentioned by Dr. Nelson in regard to tuberculosis in its earliest stages—

namely, a stretched and shining appearance of the skin investing the root of the nail. This sign he, as yet, views as quite empirical, yet perfectly certain. He has drawn the attention of several Practitioners to the fact, and they have always confirmed the truth of the observation. The cause and connexion between such empirical signs and the actual state of disease, though as yet undiscovered, is of great importance, because there must be a cause of connexion, though as yet obscure. Just as Professor Huxley observes that though no one can as yet explain why any cloven-footed animal, chewing the cud, has horns, there must be some rational explanation to be found, and that an important one, so with the intangible signs of disease in physiognomy.

I am, &c. C. B. Suckling, M.D.

FEVER IN THE MAURITIUS.

Letter from Mr. W. R. Cornish.

[To the Editor of the Medical Times and Gazette.]

Sir,—The paper by Dr. C. F. Edwards, "On Fever in Mauritius," recently published in your journal, seems to require a passing notice. I gather from the remarks of the author that he considers the recent epidemic in the Mauritius to have been mainly due to local insanitary conditions, influenced by seasonal peculiarities. Amongst the insanitary conditions are mentioned, (*a*) bad housing of the Indian population, (*b*) polluted water supply, (*c*) defective drainage, (*d*) and the emptying of a lagoon. As regards seasonal peculiarities, the author refers to the supposed effects on climate of the destruction of natural forests, and to an unusual rainfall in February, 1865. Now, I would observe that the unwholesome conditions are by no means peculiar to the people of Port Louis. As a matter of fact, they have existed more or less in previous years, when there was no unusual prevalence of fever, and the conditions specified are the normal conditions under which a very large proportion of the population of India live and die.

I must confess that the general insanitary state of the island, although it may help us to understand the fatality of the fever in particular localities, does not to me sufficiently explain why a novel form of disease should break out in the year 1866 in preference to any previous season. Dr. Edwards tells us that the prevailing fever was a "low form of bilious remittent;" that it sometimes assumed "a typhoid and contagious form," and proved "rapidly fatal." Of the fatality of the disease it is enough to learn that the population of the island in the space of nine months has been "more than decimated" by what is termed a "pernicious" fever.

In the present state of Medical science, I, in common with a large number of Professional brethren habituated to the study and treatment of tropical disorders, should desire to be favoured with precise information regarding the symptoms and duration of the disease, or diseases, referred to by Dr. Edwards, as well as every trustworthy fact in regard to the pathology of the disease.

Dr. Edwards, I observe, has no hesitation in coming to a conclusion that the disease was entirely of a malarious origin, and yet he appears to acknowledge that some forms of the epidemic resembled what he calls "Bombay fever," a disease introduced into the Mauritius by immigrants from India. It is possibly owing to the want of a definite understanding as to what is meant by the term "malaria" that so much apparent confusion exists in regard to the origin of the late epidemic. I may state that an experience of many thousands of cases of intermittent and remittent fever—diseases which, in the present state of our knowledge and for want of a more precise term, we define as of malarious origin—satisfies me that under no circumstances are these affections communicable from person to person. When, therefore, we hear of a "bilious remittent" fever sometimes becoming typhoid and contagious in character, it is but natural that we should seek for further explanation regarding the distinctive features of so peculiar a malady.

Although I demur to the accuracy of the observation that intermittent or remittent fevers are ever contagious, it is only right that I should say that almost every Medical officer who has served in the upper provinces of India must be acquainted with the fact that fever or fevers of a communicable nature are unhappily very common, not only in gaols where the disorders have been carefully studied, but also amongst the free population. Dr. Bryden, the able statistical officer of the Bengal Government, thinks that he has been able to trace no fewer than seven distinct varieties of typhus in the great epidemics which have of late years been so frequently observed in India. These forms of disease are briefly:—

a. Relapsing typhus
b. Pleuro-pneumonic typhus.
c. Typhus marked by hæmoptysis and speedy death.
d. Dysenteric typhus.
e. Enteric typhus.
f. Gastric typhus, characterised by black vomit and melæna.
g. The bubo plague.

In addition to these varieties of typhus, all of which are distinctly proved to be communicable from person to person, many recent writers have called attention to the occurrence of genuine enteric or typhoid fever in various localities in India.

The intercourse between India and the Mauritius is constant. A very considerable number of people leave India every year to labour in the sugar plantations of the Mauritius, and, in fact, a large proportion of the population of the island is made up of Indian coolies. That a disease capable of being carried by human intercourse has been brought to the Mauritius by Indian coolies, is practically admitted by Dr. Edwards, when he speaks of the ordinary fever at Port Louis as "Bombay fever."

About the end of 1865, or beginning of 1866, it is a well-ascertained fact that a very large mortality from contagious fever occurred on board ship amongst several batches of emigrants despatched from Calcutta to the West India Islands. The subject was very carefully investigated by the Bengal Sanitary Commission at the time, and the result showed most indubitably that the disease had been introduced into the Calcutta depot by a party of emigrants from an infected district, and that the several ships went out to sea with closely packed crowds of persons who had been exposed to the contagion of typhus.

Now, I may be permitted to suggest that it is not at all unlikely that the depot in Calcutta for Mauritius emigrants may have been exposed to the same influences as the West Indian depot, and that, in point of fact, the contagious malady which has done so much mischief in the Mauritius may have been a direct importation from India by means of the coolie ships.

It would be well if the whole question of the recent outbreak in the Mauritius were formally investigated by a special commission composed of persons familiar with such inquiries, and who have been uninfluenced by local circumstances. The Medical Profession will, I submit, scarcely accept Dr. Edwards's paper, interesting and valuable though it may be, as a satisfactory history of the origin, nature, and progress of the epidemic. I am, &c.

W. R. Cornish,
December 16, 1867. Surgeon, Madras Army.

THE LATE MEETING OF THE MEDICO-CHIRURGICAL SOCIETY.

Letter from Dr. William Ogle.

[To the Editor of the Medical Times and Gazette.]

Sir,—I trust you will allow me to correct some errors in your report of the discussion which took place on November 26 at the Medical and Chirurgical Society. Dr. Fuller, in the course of his paper, had pointed out that when nitric acid is added to a sample of urine containing an excess of urea, copious effervescence occurs. Of this effervescence I suggested the following explanation:—When urea is in excess, so also, as a rule, are the colouring matters of the urine. These are oxidised at the expense of the acid, and thus nitrous acid is formed, which decomposes some of the urea, and, as the result of this decomposition, bubbles of carbonic acid and of nitrogen make their escape. I added that it might easily happen that so much urea was thus decomposed as to prevent crystallisation of nitrate of urea occurring, even when the urea had been present originally in excess. From your report it would be supposed that I had attributed the effervescence to bubbles of nitrous acid; and, secondly, that I had spoken of urea as being excessively "soluble" in nitrous acid. I should be sorry to remain credited in your columns with either of these statements.

Clarges-street, December. I am, &c. William Ogle.

CLUB DOCTORS AND THEIR PATIENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—From the prominence given to the opinions of a correspondent on the sick club question, I fear you have been

led to endorse them without taking into consideration the facts and arguments bearing on the subject, which would enable you to decide upon it in your usual impartial and judicial manner. There is little difficulty in discovering that the writer is no club Doctor, and that he is practically unacquainted with the subject on which he undertakes to enlighten the public; but belongs, apparently, to that kid and lavender school of Practitioners which has no sympathy with its toiling and less fortunate brethren. His allusions to "rattening" are quite at variance with the good taste and moderation usually displayed in articles found in your journal, and the more to be regretted as they are directly antagonistic to the now prevailing good feeling which exists among the members of the Profession, and tending to destroy that unity among us, the absence of which has always been a matter of regret.

I know not how far his remarks are applicable to Chester, but they in no sense apply to Birmingham, for it is well known that, for their condition in life, the majority of club members are in as good circumstances as the Surgeons who attend them, and large numbers are superior to them in a commercial point of view.

The Birmingham club Surgeons, before making their grievance public, collected accurate information upon which to base their complaint, the result of which was a revelation of unpaid drudgery which, in spite of his "laudable desire to help a working man in his trouble," your correspondent would be very sorry to undertake.

The Birmingham public—to its credit be it said—since its attention has been directed to the matter, is so alive to the enormous discrepancy between the remuneration of club Surgeons and the work obtained from them, that, individually, it has expressed its willingness to remunerate its club Doctors more liberally, and is only waiting to respond collectively till the Surgeons are agreed to act together, which will take place as soon as the committee of inquiry appointed by the Birmingham and Midland branch of the British Medical Association has published its report on the subject.

Here, we are sanguine of the ultimate success of the movement, and of the future good understanding which an increased tariff will bring about between club Doctors and their patients.

I am, &c.

An Admirer of the "Medical Times and Gazette."

Birmingham, Dec. 17.

*** "An Admirer of the *Medical Times and Gazette*" is mistaken in supposing we necessarily endorse the opinions of writers whose letters we publish. The paragraph in our former correspondent's letter on "rattening" is in a mildly jocose vein, which might disarm severe criticism.

OBITUARY.

DR. DAUBENY.

Oxford has lost one of her few distinguished men. Her best friends must be fain to confess that at present she has none to spare. The intelligence of the country has long ceased to gravitate to the old Universities, the best of whose young broods each year, as the strength of manhood comes upon them, love to leave the still and shaded waters, and to battle it out with the broad stream of life. Those left behind are chiefly the timid, the sickly, and the indolent, who shrink from the buffet of every little wave, and find out their mistake sometimes too late. Hence it is that among the residents at Oxford there are so few men whose reputation extends beyond their own walls, and that of those few so large a proportion have earned their reputation elsewhere.

But Dr. Daubeny would seem to have been an exception to this general statement, and to have remained in the still waters without suffering the penalties of stagnation. He was a resident Fellow, more or less, during nearly fifty years; and though too many promising men who have had a like fate have but existed inglorious1y,

"And lost to life, and use, and name, and fame,"

yet his active and versatile mind was in full play to the last year of his life, ever busying itself with new problems, and receiving new ideas. He was, in fact, one of the few men whose careers could be quoted in justification of the existing system of Fellowships—a system, as now worked, absurd in principle and mischievous in action. He avoided, however, the worst part of the resident Fellow's position by long and frequent absences from Oxford, in the course of which he endeavoured to carry out a grand scheme of travel for the investigation of his favourite subject, the theory of volcanoes. This scheme was formed while he was studying at Edinburgh in 1816, being then twenty-one years of age; it included the volcanoes of the New World as well as those of the old, but time and opportunity did not enable him to carry out the widest part of it. Thus he gathered stores of new facts, the result of his own observation, and brought them home for comparison and study.

Charles Giles Bridle Daubeny, who bore an old family name, was the younger son of the Rev. James Daubeny, rector of Stratton, in Gloucestershire. He was born in 1795, and received his school education at Winchester College. He obtained a Demyship of Magdalen at an early age, and on that account did not remain at school long enough to try his chances of succession to New College. But he always retained an affection for the sister foundations of William of Wykeham, and his familiar face was seldom missed at the annual Founder's Commemoration at New College. He took his B.A. degree in 1814, at the age of 19, having obtained a second class in classics. In the following year he gained the Chancellor's prize for the Latin essay, which he must have recited in the theatre while the attention of the whole country was fixed on the campaign of Waterloo. Two years later, as above mentioned, we find him studying Medicine at Edinburgh. In 1818 he undertook his first journey of investigation to the volcanic district of Auvergne, for the purpose of determining the igneous character of the trap rocks; and so successful were his early labours, that in 1822 we find him delivering his inaugural lecture as Professor of Chemistry at Oxford, and referring to his recent election as a Fellow of the Royal Society at the age of 27. Chemistry was then very little studied in Oxford. It was treated, as Dr. Daubeny in his later years humorously remarked, as a sort of occult science or black art, and relegated, with its Professor's residence and laboratory, to some dark underground rooms beneath the Ashmolean Museum. His acquaintances at this time, and always, numbered among them the most active minds of the time, both in and out of Oxford. The following note from this lecture is an illustration of his intercourse with a kindred spirit, the late Archbishop of Dublin:—

"I am indebted to my friend, the Rev. R. Whately, of Oriel College, Oxford, for having pointed out to me the existence of a large quantity of tannin in the leaves and stalks of *Rumex aquaticus*, or great water dock, found abundantly in the meadows near Oxford."

In the same lecture he urged upon the University what was then an unheard-of and apparently fanciful proposal—that Natural Science should be admitted among the ordinary studies of the place, and made part of the University course. Between thirty and forty years later he had the satisfaction of seeing that opinion begin to prevail, though to the last year of his life he never ceased to advocate the more complete utilisation of the resources of Oxford, and greater freedom of study. In a letter to his old friend, the Provost of Oriel, published in 1865, he very justly points out the necessity of making Oxford once more really a University, and taking away all excuse for the popular belief, which holds its ground in spite of everything, that it is merely a clerical seminary. He quotes the statutes of the founders of Merton, New College, and Magdalen, showing that their aim was not simply ecclesiastical, inasmuch as they laid down a strict rule that any member of the society who entered any of the monastic orders should be *ipso facto* ejected from the College, though, doubtless, the Fellows were encouraged to become secular clergy—that being almost the only road to success open to a poor man in the fourteenth and fifteenth centuries:—and, moreover, that the founder of Magdalen provided lectures in moral and physical science as well as in theology

Dr. Daubeny's standard work on volcanoes was first published in 1826, with a dedication to his friends Dr. Buckland, the late Dean of Westminster, and Dr. Kidd, Regius Professor of Medicine at Oxford, who had also preceded him as Professor of Chemistry. A second edition, much enlarged and improved, was issued in 1848, including the results of his more recent observations. In the course of his extensive travels we find him examining fresh lava at Vesuvius in 1834 and 1845, and at the island of Vulcano in the year of the first issue of his book. It is on this work that his fame will chiefly rest. It brought him into relations, more or less intimate, with all distinguished students of the branches of natural science connected with the subject in this and other countries, and gained him a world-wide reputation. In 1831 he published his well-known introduction to the "Atomic Theory," to

which he added a "supplement" in 1840, with "Remarks on Proposed Improvements in University Education." Ten years later a second edition was issued.

He was appointed Professor of Botany at Oxford in 1834, and forthwith turned the varied powers of his mind to that subject. The Professorship of Rural Economy was added to that of Botany in 1840. His publications connected with botanical and agricultural science are "On Agriculture, and the Chemical Action of Manures," 1841; "A Popular Geography of Plants," 1855; "A Treatise on Roman Husbandry," 1857; "On the Final Causes of the Sexuality of Plants," with reference to Mr. Darwin's work on the "Origin of Species," 1860; "Plants of the World," 1865; "Trees and Shrubs of the Ancients," 1865; and other minor works and tracts.

But even this variety of pursuits did not exhaust his versatility. In 1844 he published an essay on agricultural education, with reference to the proposed new College at Cirencester; in 1853; one on the question, "Can Physical Science find a Home in an English University?" In 1855 he delivered a lecture at the Royal Institution on the importance of chemistry in general education. In 1856 he was President of the British Association for the Advancement of Science at Cheltenham, a post for which his many-sided mind eminently fitted him. In 1863 he published some lectures on climate at Torquay, where it was his custom to reside during many months of the year in the latter part of his life. And in the present year he issued "Christianity and Rationalism," an answer to some statements of Mr. Lecky (in his "History of the Rise and Progress of the Spirit of Rationalism in Europe"), and collected two volumes of his own "Miscellanies," including tracts on various scientific subjects, addresses in the character of President of several societies, and interchanges of criticisms with learned men of different countries. He was a regular attendant and supporter of the British Association from its commencement, and had filled several offices in it before his election as President.

As Professor of Botany, he lamented the want of interest in the subject which prevails at Oxford, and gave his chief attention to the improvement and maintenance of the Botanic Garden which was under his charge, and the care and increase of the large and valuable collections of dried specimens which are preserved there. But he was always at work on some new problem, and always had experiments of some kind in progress. As a specimen of his demonstrations, the following may be given:—The whole amount of coal now lying buried in the earth would, if recovered and converted into carbonic acid, produce an atmosphere incompatible with the higher forms of animal life, and unfavourable to the growth of exogenous plants. But experiment shows that such an atmosphere actually favours the growth of the lower vegetables, and that those most nearly allied to the gigantic tree-ferns and similar plants so abundant in the coal flourish luxuriantly in it. Therefore we may infer that, by restoring to the atmosphere the carbon now buried, we should reproduce the conditions of existence which preceded the coal formation, and animal life generally would be replaced by profuse vegetation of the same kind as that of the coal forests. (This is quoted from memory, and any mistakes in it are the writer's.) No considerable work on scientific subjects escaped his attention; and he was accustomed to criticise with freedom any statements or arguments, by whomsoever made, with which he strongly disagreed. But though an active controversialist, he was always a generous opponent, and never gave way to any of the forms of party-spirit from which even scientific men are not always free. In his latter years the tendency of his mind may perhaps have been called conservative, but no man of his age was ever more ready to receive new ideas and to act upon them. Indeed, in this, as in many other respects, though he had reached the ordinary limit of life, he scarcely seemed to have yet grown old.

It seems hardly fair to claim Dr. Daubeny as a member of our Profession. He did, indeed, graduate in Medicine, and practise for a few years, holding for a short time the post of Physician to the Radcliffe Infirmary. But at the age of 31 he gave up a profession for which, as he said, his tastes and habits unfitted him, and on which he was fortunately not dependent. In his Harveian oration, delivered in 1845, he speaks of himself as long ago a deserter from the ranks of Physic. Certainly it cannot be affirmed that Medicine in any way helped him forward in his career.

With all his accomplishments, Dr. Daubeny never acquired the faculty of oratory. His lectures, though full of learning and ingenuity, suffered from a somewhat ungraceful delivery, and sometimes failed to excite in his audience an amount of interest proportionate to their value. But this deficiency, since it was more than counterbalanced by his success in other points while he lived, will assuredly not diminish the estimation in which he will be held now that he is gone.

In domestic life a circle of intimate friends of kindred tastes fully knew and valued him. To others he was known as a man of retiring disposition and simple habits; of abundant information and well-considered opinions on very various subjects; ready to discuss disputed points, and though firm in his convictions, tolerant of opposition; kindly and considerate to his juniors, and anxious to avoid giving pain—a man, in short, with many friends and no enemies. Besides his many public works, he was accustomed to amuse his leisure by the composition of various small fugitive pieces, which he circulated among his friends. In his own College, of which by the length of his tenure he became senior Fellow, he commanded the greatest respect. As Professor of Botany, he occupied the house attached to the "Physic Garden," where he died, and did not live in College. This house is close to the banks of the stagnant Cherwell, which, from the growth of the district to the north of Oxford, has become little better than an open sewer. In it, two or three years ago, he had already been brought to death's door by serious illness.

One of the latest projects with which Dr Daubeny occupied himself was that for establishing a Medical hall in Oxford. The improvement of the University was an object which engaged his attention during the whole of his life within it. He saw well that it is useless to chain men of different temperaments down to one dry curriculum, and, though he would have been the last man to express such a thought even to himself, that if Oxford will be famous again, she must produce more Daubenys and fewer mere schoolmasters. We cannot wish better for his University and his old school that men like him should be common among their alumni.

NEW INVENTIONS.

BURROW'S SELF-REGISTERING MINIMUM THERMOMETER.

(Made by Messrs. Burrow, Malvern, price 10s. 6d.)

This is a spirit thermometer, containing in the tube a movable index, which remains at the lowest point reached by the spirit. The first desideratum in a thermometer is accuracy, the second convenience and facility of reading the observations, the third a neatness that shall conciliate the eye. The instrument before us possesses all these qualities, and, in particular, has been verified at the Kew Observatory, and is furnished with a table of corrections when compared with the standard instruments. It is very cheap, and will facilitate the wish felt by many persons to obtain an accurate record of the meteorology of London compared with the country, and of different parts of London compared with each other.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows held on Wednesday, December 18, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

John Frederic Codrington, Metropolitan Free Hospital; Frederick John Hawthorn, Poplar Hospital; Thomas S. H. Jackman, Leintwardine; Henry Lawrence, Cape of Good Hope; Benjamin Locking, Kirk Ella, Hull; Edward Norton, Tamworth; Frederic William Parsons, Islip, Oxon; Charles Henry Ralfe, Doncaster; James Baynard Saundry, Guy's Hospital; Frederick Wallace, 243, Hackney-road.

Royal College of Surgeons of England.—The following Members of this institution having undergone the necessary examinations for the Fellowship during the week ending the 23rd ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, at a meeting of the Council on the 12th inst., were admitted Fellows of the College, viz.:—

Messrs. Clarence Cooper, her Majesty's Indian Army, diploma of Membership dated December 17, 1852; Samuel Prall, M.D. St. Andrews, West Malling, Kent, April 20, 1857, and John Daniell Hill, M.D. St Andrews,

Guildford-street, Russell-square, July 18, 1859, students of Guy's Hospital Christopher Bulteel, Stonehouse, Devon, March 31, 1854, Francis Woodhouse Braine, L.R.C.P. Lond., Hertford-street, Mayfair, March 31, 1858, and George Cowell, Belgrave-road, Pimlico, July 9, 1858, of St. George's Hospital; James Fitzjames West, Bingley-house, Broad-street, Birmingham, October 13, 1854, of St. Thomas's Hospital; Thomas Moore, L.R.C.P. Lond., Old Steyne, Brighton, December 6, 1859, of St. Bartholomew's Hospital; and James Keith Jeanneret Grosjean, L.R.C.P. Lond., Sheffield-gardens, Kensington, April 17, 1860, of St. Mary's Hospital.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 12, 1867:—

William Bruorton, Wateringbury, Maidstone; Timothy Wood Lee, Thame, Oxon.; William Richard Geodfellow, Turner's-road, Limehouse.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAUGHTON, H. T., M.R.C.S.E., has been appointed Resident House-Surgeon to the Infirmary and Dispensary, Bradford, Yorkshire.

CANDLISH, H. M., has been appointed Honorary Physician to the Infirmary, Alnwick, Northumberland.

KELLY, CHARLES, M.D. Lond., has been appointed Pathological Registrar to King's College Hospital.

KIRKMAN, J. M., M.R.C.S.E., has been appointed Assistant House-Surgeon to the Royal Portsmouth Hospital.

REBOUL, ANTHONY PERCY, D.L.R.C.S., has been appointed Second Dental Surgeon to the German Hospital, Dalston.

ROGERS, C., L.R.C.S. Edin., has been appointed Surgeon to the Islington Dispensary.

BIRTHS.

BIRD.—On December 14, at Gillygate, York, the wife of William Bird, M.R.C.S., of a son.

BLADES.—On December 16, at 171, Kennington-park-road, S., the wife of C. C. Blades, M.D., of a son.

BODINGTON.—On December 11, at Sutton Coldfield, the wife of G. F. Bodington, M.R.C.P., of a daughter.

BROSTER.—On December 6, at 34, Marland-place, Southampton, the wife of J. Broster, M.D., of a daughter.

DAVIDSON.—On December 15, at Cork, the wife of Dr. W. A. Davidson, Surgeon 65th Regiment, of a daughter.

DAY.—On October 30, at the Luz, Madras, the wife of F. Day, Principal Medical Storekeeper Madras Army, and Professor of Materia Medica, Madras Medical College, of a daughter.

DEAN.—On December 13, at The Cottage, Upper Norwood, the wife of Dr. P. T. Dean, of a daughter.

KEYS.—On December 12, at Warwick-street, Regent-street, the wife of C. F. Keys, F.R.C.S.E., of a son.

SMITH.—On December 9, at Olinda-villa, Seworth, near Liverpool, the wife of Dr. C. S. Smith, of a daughter.

SMITH.—On December 16, at Bella Vista, Eliott-hill, Blackheath, the wife of Dr. F. H. Smith, of a son.

STEVENSON.—On December 16, at 51, Wimpole-street, Cavendish-square, the wife of N. Stevenson, M.R.C.S.E., of a son, prematurely.

TODMAN.—On October 20, at Port Elliot, South Australia, the wife of J. Todman, M.D., of a son.

TRESTRAIL.—On December 7, at 7, Hamilton-terrace, Hyde-vale, Greenwich, the wife of Surgeon-Major Trestrail, Bombay Army, of a daughter.

WRENCH.—On December 16, at Park Lodge, near Chatsworth, the wife of E. M. Wrench, M.R.C.S.E., L.L.D., of a son.

MARRIAGES.

BERNARD—GRACE.—On December 11, at the parish church, Mangolsfield, D. E. Bernard, M.R.C.S., L.R.C.P., to Alice Rose, third daughter of H. M. Grace, Esq., Sturgeon, Downend, Gloucestershire.

BROWN—MOSS.—On December 7, at Caldbeck Church, Cumberland, W. Brown, L.R.C.S.E., of Hesket, Newmarket, to Matilda Ann, third daughter of the late Lieutenant G. Moss, 8th West India Regiment.

CRIBB—NASH.—On December 11, at St. Michael's, Bishop's Stortford, W. Cribb, L.R.C.P., to Edith Mary, fifth daughter of J. G. Nash, Esq., of Bishop's Stortford. No cards.

MUNRO—EDIE.—On December 1, at the Bridge of Earn, N.B., A. D. N. Munro, M.D., L.R.C.S.E., of Lethan, Fifeshire, to Hay Margaret, youngest daughter of the late R. Edie, Esq., of Elliotthead, Perthshire.

PALMER—COLLINS.—On December 11, at the parish church, St. Bees, Cumberland, C. Palmer, L.R.C.P., etc., to Mary Louisa, second daughter of H. Collins, Esq., of Knudallah, St. Bees.

PICKERING—LE COUTEUR.—On December 11, at the residence of the bride, St. John's Manor, Jersey, T. W. Pickering, M.D.S.L., L.R.&Q.C.P.I., Army Medical Staff, to Florence Elizabeth Mary, eldest daughter of F. J. Le Couteur, Esq., Lieut.-Colonel R.J.M. No cards.

WALLACE—LADD.—On October 22, in Brooklyn, U.S., by the Rev. Dr. Jackson, Dr. William Wallace, to Ellen Louise Ladd, of Throg's Neck, West Chester county, New York.

DEATHS.

BODINGTON, CAROLINE MARY, wife of George Fowler Bodington, M.R.C.P., at Sutton Coldfield, on December 11.

BROWN, J. H., M.R.C.S., at Tewkesbury, on December 9, aged 28.

DAUBENY, C. G. B., M.D., F.R.S., etc., at the Botanic Gardens, Oxford, on December 13, aged 72.

JEMMETT, B.L., M.B., M.R.C.S., at Bishop's Hull, Taunton, on September 25, aged 44.

MURPHY, P., M.D., of Cork, on November 30.

VACANCIES.

DENTAL HOSPITAL OF LONDON.—Dental Surgeon.

HOSPITAL FOR CONSUMPTION, BROMPTON.—Assistant-Physician.

LIVERPOOL SOUTHERN HOSPITAL.—Junior House-Surgeon.

ST. MARY'S HOSPITAL.—Assistant-Physician.

ST. GEORGE'S HOSPITAL.—Assistant-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Mansfield Union.—Mr. Walter Whitehead has resigned the Second District; area 13,080; population 3465; salary £31 10s. per annum.

Morpeth Union.—The Eighth District is vacant; area 12,319; population 938; salary £10 per annum.

Tottuth-park Township.—Mr. George Shearer has resigned the First District; salary £250 per annum; no fees.

APPOINTMENTS.

Nuneaton Union.—Richard A. Rix, M.R.C.S.E., L.S.A., to the Chilvers Coton District.

Ross Union.—William H. Plaister, M.R.C.S.E., L.S.A., to the St. Weonards District.

Weymouth Union.—Reginald P. Simpson, M.R.C.S.E., L.S.A., to the Wyke Regis District and the Workhouse. Frederick C. G. Griffin, M.R.C.S.E., M.B. Oxon., to the Melcombe Regis District.

Wimborne and Cranborne Union.—John Oakley, M.R.C.S.E., L.S.A., to the Fourth District.

UNIVERSITY INTELLIGENCE.—OXFORD, DECEMBER 17.—The subjoined class list was this day issued by the Examiners in the Physical Science School:—*First Class:* A. W. Bateman, Magdalen; W. T. T. Dyer, Christ Church; A. G. Reinold, Merton. *Second Class:* G. H. Morrell, Exeter; L. Squire, St. Mary Hall. *Third Class:* E. Robinson, Balliol; J. Williams, Jesus. *Fourth Class:* Nil. *Examiners:* G. W. Child, M.D.; H. J. S. Smith, M.A.; A. G. V. Harcourt, M.A. The following gentlemen have passed in the recent examination for the degree of Bachelor of Medicine:—*First Examination:* G. Norman, B.A., Lincoln College; E. J. Sparks, B.A., Corpus; H. Sutherland, B.A., Christ Church. *Second Examination:* G. C. Bright, B.A., Balliol; J. F. Payne, B.A. (Fellow), Magdalen. *Examiners:* A. G. V. Harcourt, M.A.; R. B. Clifton, M.A.; W. S. Church, M.A., M.B.; T. K. Chambers, M.D.; J. W. Ogle, M.D.; H. W. Acland, Reg. Prof. Med.

UNIVERSITY OF CAMBRIDGE.—NATURAL SCIENCES TRIPOS, 1867.—*Examiners:* George Murray Humphry, M.D., Professor of Anatomy, Downing College; Osmond Fisher, M.A., Jesus College; George Henslow, M.A., Christ's College; Philip Thomas Main, M.A., St. John's College. *First Class:* Murray, Corpus; Brailey, Down; Eaton, Trin. *Second Class:* Ward, Caius; Page, Christ's; Douglas and Anningson, Caius (equal); Wanklyn, Sidney. *Third Class:* Aikin, Trin.; Duthie, Jesus; Reid, Trin.; Shaw, Caius.

UNIVERSITY OF CAMBRIDGE.—NATURAL SCIENCE.—Mr. N. Moore, who was second in the examination for the Downing scholarship for Natural Science held in June last, has been made librarian scholar of St. Catherine's College. The value of the scholarship is about £30 per annum tenable for twelve years. The subject for which Mr. Moore showed greatest proficiency in the examination was comparative anatomy and physiology.

UNIVERSITY OF DUBLIN.—At the Winter Commencement held in Trinity College on Wednesday, December 18, the following degrees and licence in Medicine and Surgery were conferred by the Right Hon. Sir Joseph Napier, Bart., Vice-Chancellor of the University. *Baccalaurei in Medicinâ:* Franciscus Georgius Adye Curran, Henricus Nathaniel Dudley, Thomas Faris, Gulielmus Geoghegan, Fredericus Ferdinandus Hill, Gualterus Georgius Smith, Johannes Todhunter, Georgius Rodericus Triphook, Johannes Walker. *Magistri in Chirurgiâ:* Gulielmus Talbot Burr, Georgius Edvardus Dobson, Gulielmus Geoghegan, Johannes Walker. *Licentiatus in Medicinâ:* Nesbitt Browne. Our readers will be glad to learn that the University has conferred the honorary degree of Doctor of Laws upon the eldest son of Dr. Stokes, Mr., now Dr. Whitley Stokes, whose literary researches have long since made him well known as one of the first philologists of our age, and whose professional talents have already raised him to the important and lucrative post of Secretary to the Legislative Council of India. It will be gratifying to the Medical as well as to the legal profession, that the University of Dublin has not forgotten her absent *alumnus*, but has given this well-merited mark of her appreciation of the merits of a son who promises to be as distinguished an ornament of the latter body as his father is of the former.

THE PRELIMINARY AT THE COLLEGE.—During the past three days 28 candidates for the Fellowship and 169 for the Membership of the Royal College of Surgeons have been undergoing their Preliminary Examination in Arts.

A MARBLE BUST OF TROUSSEAU has been presented to the Academy.

FLOURENS' SUCCESSOR IN THE FRENCH ACADEMY.—It is reported by the French journals that M. Claude Bernard will be chosen as Flourens' successor in the *Académie Française*. No more judicious or deserved selection could be made.

THE CONVICT BAKER.—An attempt is being made to procure a commutation of Frederick Baker's sentence on the ground that at the time he murdered the child Adams he was *non compos mentis*.

DR. T. P. HESLOP, the Senior Physician to the Children's Hospital, Birmingham, has been invited to accept the office of "Chairman for England" of the Medico-Political Association. While fully appreciating the distinguished honour, Dr. Heslop has felt compelled to decline it, his chief reason for so doing being, we have reason to understand, his disinclination to lessen the influence of the British Medical Association.

AN INSTRUMENT FOR CAUTERISING THE LARYNX was described by M. Piorry at the meeting of the Academy of Sciences on the 9th. The description of the instrument was given at length, but we have not space for its insertion. It seems to be a modification of Lallemand's. M. Piorry stated that he has used it with great facility and good results on several occasions. He has employed it in the cauterisation of ulcers.

AT the meeting of the Metropolitan Association of Medical Officers of Health, to be held in the evening of Saturday the 21st, at the Scottish Corporation Hall, Crane-court, Fleet-street, papers will be read by Inspector-General Edward Hare, C.S.I., by Dr. Bishop, of Naples, and others, on the Dry Earth *versus* the Watercloset Sewage System.

PROFESSOR SEDGWICK'S LECTURES AT CAMBRIDGE.—The lectures of this venerable geologist, who is now 82 years old, and who first took the hammer in his hand fifty years ago, were brought to a close on the 9th. In concluding the course the veteran investigator of the rocks allnded to the spread of the Darwinian doctrines, against which, with many a good quotation from sacred and profane writers, he gave his pupils a solemn warning. The lecture, which concluded the Professor's 50th course, was received with long and loud applause.

DR. B. W. RICHARDSON AT HULL.—On Tuesday Dr. Richardson gave a lecture at the Royal Institution at Hull, on his recent researches on the nervous system. The lecture was delivered at the request of the President of the Royal Institution, Dr. Kelburne King, and the subject created the greatest interest, not less than 440 auditors being present. The lecturer performed those experiments of freezing sections of the nervous system, with which our readers have been made specially familiar. Two new points were adduced—first, that it was possible to produce local insensibility of a limb by freezing the trunk of the nerve feeding the limb; and, secondly, that when a section of the superficies of the brain, after its removal from the dead body, was treated with a fluid that caused condensation of the structure, the so-called convolutions admitted of being separated almost into distinct segments or centres. A portion of brain thus treated was shown. A very interesting discussion, in which the President, Mr. Gibson, and others took part, followed upon the lecture.

ONE UNIVERSITY FOR IRELAND.—It is reported in Dublin that Government has at last decided upon a scheme which shall satisfy all the parties in the present University conflict. It is thought that when Parliament reassembles the proposed plan will be laid before the House. Meanwhile rumour says that there is to be a consolidation of all the collegiate and University bodies into one national University. This University would include as colleges the present Catholic University, which is to be endowed, Trinity College, the three Queen's Colleges, and possibly also one of the Presbyterian Colleges in the North. Trinity College is reported to be in favour of the scheme, but we fancy the Queen's University will be opposed to any plan calculated to impede the progress of non-sectarian education in Ireland. A change which would involve competition between Trinity College and the Queen's Colleges as collegiate branches of the same University, would, in our opinion, be fatal to the interests of the latter. As to its effect upon the education of the country we cannot judge; and this, of course, is the only stand-point from which to view the whole question.

GARIBALDI'S health is stated, in a letter recently received from Caprera, to be much improved.

DEATH OF MR. J. H. BROWN.—An inquest has been held at Tewkesbury on the body of Mr James Herbert Brown, a Surgeon. On Sunday evening Mr. Brown complained of his head and chest, and, after refusing tea, left home. Soon afterwards a cabinet-maker, passing along the road with his wife and son, heard a low moaning, and found Mr. Brown lying prostrate, with his head over the ditch and his hat and umbrella beside him. He was black in the face, his lips were swollen, and he was insensible. He was removed to a neighbouring turnpike-house, and Mr. Allard was fetched. He was found to be suffering from apoplexy with asphyxia, and had lost all power of sense and motion; and notwithstanding the efforts of his partner and another Medical man he died in a few hours. The jury returned a verdict of "Died from natural causes."

PROFESSOR LIEBREICH AND THE PARIS FACULTY.—The *Wiener Med. Zeitung* states in a recent number that this distinguished ophthalmologist, formerly assistant to Von Graefe, and now in large practice in Paris, having been so fortunate as to operate upon the eyes of the mother of the French Empress with complete success, the Emperor, in order to testify his great satisfaction, expressed his desire that Liebreich should be appointed Professor of Ophthalmology in the Paris University. He is, however, not in the possession of a French Medical diploma, and only practises in Paris under the cover of a licence the Minister of the Interior has the privilege of bestowing on certain foreign Practitioners, and the French laws require for a man to be appointed to a Professorship in a Faculty, he should have such diploma. On the Imperial wish being communicated to the Faculty, the Professors, one and all, tendered their resignations, and the Emperor was obliged to forego the realisation of his wish. [The German journal mentions this as a proof of the narrow spirit governing the Faculty; but we cannot but think, although Liebreich would, indeed, have adorned the chair, and have supplied a much-felt want in the Faculty, that the Professors were quite right in resisting such an arbitrary and illegal nomination.]

SURGICAL SOCIETY OF IRELAND.—The thirty-sixth Annual Session of the above Society was opened on the evening of Friday, the 6th inst., in the Albert Hall, Royal College of Surgeons, with an inaugural address by the President, Dr. Robert Adams, University Professor of Surgery, on which occasion there was a large attendance of members and visitors. Having pointed out the practical utility of such assemblies, and the advantages to be derived from the regular attendance at the meetings of the Society of its senior and more experienced members, Dr. Adams referred to the frequent appearance of the greatest celebrities of the metropolis at the *reunions* of the London societies, and spoke of a visit which he had some time ago paid to the Surgical Society of Paris, when he could not but admire the zeal which induced such experienced and distinguished men as Civiale and Velpeau to give up for a time their ordinary and urgent vocations to lend their presence, influence, and example, to promote the objects of the Society. "Alas!" added Dr. Adams, "although the time has been but short since June, 1865, these two celebrated Surgeons are now no more; so long, however, as the annals of Surgery last, the names of both of these distinguished men shall be recorded as the promoters of science and the benefactors of humanity. Among that assembly there were, no doubt, other eminent men, whose names did not reach my ear. Let me, however, add the name of Giraldès, the interpreter *par excellence* among the French Surgeons of English Medico-Chirurgical literature; nor should I omit to mention that among those learned Surgeons who kindly greeted me on the occasion in question, was the celebrated ex-Surgeon of the Hôpital Lariboisière, Chassaignac, the inventor of the écraseur." In conclusion, the President remarked that "the seal of the diploma of the Surgical Society of Paris has impressed on it a sentiment in which our Surgical Society of Ireland entirely concurs," and the spirit of which the whole of his address was intended to inculcate—"Vérité dans la science, moralité dana l'art," or, as he would render it, "Truth in the science, conscientiousness in the practice of the Profession."

JUBILEE OF PROFESSOR BÉRARD AT MONTPELLIER.—A Medical jubilee has just been held at Montpellier on the occasion of the fiftieth anniversary of the teaching of M. Bérard, Professor of Chemistry and Dean of the Faculty. To be able to teach during so long a period a branch of science

so progressive and so ever-changing as chemistry, fully appreciating and contributing to its advances, is a remarkable feat. The banquet was accompanied by more than the ordinary enthusiasm of such occasions; and during its progress there was read the Report of M. Duruy, Minister of Public Instruction, to the Emperor, stating M. Bérard's claims to the promotion of Commander of the Legion of Honour. In this it is stated that he is the last survivor of that illustrious body, the *Société d'Arcueil*, established at his own residence by Berthollet, and afterwards continued in the same locality by Napoleon I. This illustrious society numbered among its members, besides its founder, such names as Arago, Biot, Chaptal, De Candolle, Dulong, Gay-Lussac, Humboldt, La Place, Poisson, Thénard and Malus—a galaxy, if equalled, certainly never surpassed in any scientific body that measured an existence only of fifteen years. Three volumes of memoirs were published by it, containing papers of the highest value. M. Bérard himself has been engaged in important investigations on the solar spectrum, the specific heat of gases, the ripening of fruits, etc., and now, in his old age, offers that generous hospitality to men of science which he himself had received at the hands of Berthollet. It is certainly pleasant to read of such recognitions of merit at the hands of those in power, recompensing in a graceful manner the exertions of a well-spent life, and stimulating the energies of aspirants to future fame. Men should and do work for the love of science, but surely it cannot be amiss that those who benefit by their labours should at least show that they can appreciate them.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

H. Raynes.—Out of print, but may be met with at sales, etc.

Mr. Chapman is thanked.

The Cæsarean Operation. — *Obstetrician.*—The extract from Coleridge's "Table Talk" appeared in the *London Medical Gazette*, vol. xvi. p. 320. We leave you to judge as to the correct etymology from the following authorities:—Webster states Cæsarian, see Ce-sa're-an; Cooper, Cæsarean, but Hoblyn gives it Cæsarian, persons so born were formerly called *cæsones*, a *cæso* matris utero. Todd in his edition of Johnson gives it Cæsarean, see Cesarian, but on turning to this reference the same orthography is preserved—viz., *re* and *n t ri*, with the addition " from *Cæsar*, old French enfantement *césarien*, section *césarienne*" (Cotgrave). It would, therefore, appear orthographically correct as given by Coleridge.

M.A. Oxon.—The electors to the Linacre Professorship of Physiology in the University of Oxford were appointed in 1859 or 1860, and are the Visitor and Warden of Merton College, the President of the Royal College of Physicians, the President of the Royal College of Surgeons, and the President of the Royal Society, for the time being.

St. George's. - David Middleton was Sergeant-Surgeon to the Sovereign and Surgeon-General to the Army. He died December 29, 1785, at the age of 85, and was interred on the south side of the altar of Kensington Church, where a tablet is erected to his memory.

Obstetrician.—You will find some interesting notes on the effect of maternal imagination on the fœtus in the *Medical Times*, vol. vii p. 126, by Mr. W. B. Kesteven, of Holloway.

Dr. Davis and a Guardian.—If your respective pupils pass the preliminary examinations, they can commence their Professional studies after the Christmas vacation, and thus save half a session. We cannot recommend a Hospital. Consult the Students' Number of this journal.

Equus, Newmarket.—The skeleton of the horse in the Hunterian Museum is *not* that of *Eclipse*. Of this we are assured on the highest authority. Mr. Gamgee is quite correct in the statements he has already made on the same subject.

Mr. Manning.—According to the prescribed law, a Doctor of Medicine takes precedence on the ground of ancient usage, *following* the Doctor of Law. Bachelors in Divinity, Law, and Medicine follow. Precedence is not regulated by mere convent onal arrangements; it is "part and parcel of the law of England." The present Sir Astley Cooper is the third baronet; the first was the celebrated Surge n.

EXAMINATIONS BY REFLECTED ARTIFICIAL LIGHT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a point of some importance in all examinations by reflected artificial light which I have never seen alluded to. It will be admitted that the point of greatest concentration of light should correspond as nearly as possible to that of practically best vision—viz., from ten to twelve inches. To effect this (the lamp being placed by the patient's head), a mirror of not more than six inches' focus will be required. With the four-inch reflector commonly sold with laryngoscopes, the lamp must be placed nearly four feet off to obtain the same result, with a loss of about nine-tenths of the light reflected by the six-inch mirror. I may add that this latter may be obtained of Messrs Krohne and Sesemann, 241, Whitechapel-road.

I am, &c.
J. HARWARD HOOPER, C.M. Lond., F.R.C.S.

Tenby, December 11.

THE CÆSARIAN SECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I hope you will allow a looker-on to say that the idea that the first Cæsar or Cæso was so called *a cæso matris utero* is, in the opinion of some persons, a vulgar error, and a haphazard bit of etymology such as Dean Swift satirises when he says that Moses was so called from mowing or dividing the Red Sea. There is surely a better etymology in the root whence *cæsaries* is derived; so that Cæsar or Cæsar may be interpreted "the hairy man" more probably than "the man who was forth from his mother's womb untimely ripped."

I am, &c.
VOX ET PRÆTEREA NIHIL.

ABSOLON *v.* STATHAM.

In addition to the promised contributions published last week, we now give a second list of those who intend coming forward in behalf of Mr. Statham:—

	£	s.	d.
Ashton, Thos. J., Esq.	1	1	0
Ballard, W. R., Esq.	2	2	0
Bell, Thomas, Esq., F.R.S.	2	2	0
Bennett, W. G., Esq.	1	1	0
Burger, Dr.			
Cattlin, W. A. N., Esq.	2	2	0
Cattlin, W., jun., Esq.	1	1	0
Churchill, John, Esq.	2	2	0
Corner, Francis M., Esq.			
Cracknell, Dr.	2	2	0
Elliott, John W., Esq.			
Erichsen, John E., Esq.	2	2	0
Ford, Lady, per T. G. Farmer, Esq., Cheltenham	0	10	6
Forsyth, W. F., Esq.	1	1	0
Foster, Michael, Huntingdon	1	1	0
Fox, Charles James, Esq.	2	2	0
Gant, F. J., Esq.	1	1	0
Gay, John, Esq.	2	2	0
Goldsmith, G. P., Esq., Bedford	0	10	6
Gull, Dr.			
Harrison, W. A., Esq.	2	2	0
Hepburn, David, Esq., Edinburgh	1	1	0
Hepburn, Robert, Esq.	2	2	0
Hirsch, Dr.			
Hopgood, Thomas, Esq., Chipping Norton	1	1	0
Ibbetson, G. A., Esq.	2	2	0
Jenner, Dr., F.R.S.			
Kempton, H. J. K., Esq.	2	2	0
King, E. H., Esq.	2	2	0
Kirby, S. A., Esq., Bedford	0	10	6
Kyan, John Howard, Esq., Preston	1	1	0
Laurie, George, Esq.	2	2	0
Lawrance, Dr.	2	2	0
Lawson, George, Esq.	2	2	0
Lichtenberg, Dr.			
Mason, Francis, Esq	0	10	6
Murray, Dr.			
Paget, James, Esq., F.R.S.	2	2	0
Palmer, Thomas G., Esq., Cheltenham	1	1	0
Parkinson, George, Esq	1	1	0
Parkinson, James, Esq.			
Perkins, Houghton, Esq.	0	10	6
Quain, Richard, Esq., F.R.S.	1	1	0
Read, Thomas, Esq.	2	2	0
Reboul, A. P., Esq.	1	1	0
Richardson, Dr., F.R.S.	1	1	0
Rodway, H. Barron, Esq., Torquay	1	1	0
Sansom, Dr.	1	1	0
Scully, John, Esq.	0	10	6
Slight, Dr	1	1	0
Sutro, Dr			
Thomson, F.H., Esq., Glasgow	1	1	0
Tomes, John, Esq., F.R.S.			
Underwood, Thomas, Esq.			
Vasey, Charles, Esq.	2	2	0
Walker, Gilbert, Esq.	0	10	6
Walker, Joseph, Esq.	1	1	0
Watson, Sir Thomas, Bart.	2	2	0
Wells, T. Spencer, Esq.	1	1	0
Wilson, Erasmus, Esq., F.R.S	2	2	0
Winslow, Dr. Forbes	5	5	0
Winterbottom, Edwin J., Esq.	1	1	0
Winterbottom, E. J., jun., Esq.	1	1	0
Yearsley, Dr.	1	1	0

Subscriptions will be received by the following gentlemen, the members of the Executive Committee:—

Dr. Richardson, F.R.S., 12, Hinde-street, W.
Dr. Cholmeley, 40, Russell-square, W.C.
Samuel Cartwright, Esq., 32, Old Burlington-street, W.
William A. Harrison, Esq., 10, Keppel-street, Russell-square, W.C.
Edwin Saunders, Esq., Honorary Treasurer, 13A, George-street, Hanover-square, W.
Charles James Fox, Esq., Honorary Secretary, 27, Mortimer-street, Cavendish square, W.

N.B.—Some gentlemen promising aid have omitted to state the amount.

ON THE PRESENCE OF AN ENTOPHYTE IN BUCCAL TUMOURS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A large buccal tumour of six months' standing having occurred in the case of a married woman, while her husband presented a similar one of shorter duration, the unusual coincidence, after careful and repeated investigation, elicited the following results:—The glairy and slightly yellowish fluid of the cysts presented to the unaided eye numerous white specks, which, with a power of about 200, were seen to consist of granules, fat corpuscles, and nucleated epithelium, together with coils and broken pieces of tubular fibres. On the addition of ether cells of various sizes, chiefly in pairs, were made out, which remained unaffected by liquor potassæ; while the fibres with the iodine test gave the blue reaction characteristic of cellulose. Some of the latter burst open on applying the reagent, and with a needle they could very readily be broken up. On placing a portion of the recent fluid between slips of glass, and adding a small quantity of powdered sugar, some of the identical fibres first observed underwent developmental changes, both by increasing in length and by giving out of new branches; also, where duplicate cells were visible, small masses of the same became developed, whereby the parasitic nature of these two elements was evident, the characters of the fibres being somewhat like those of Leptothrix buccalis. Though the entophyte in question may not be the primary cause of such tumours, the existence of spores and mycelia in active growth in their interior must not only prevent their resolution, but tend to their enlargement. The treatment employed in the above instances was injecting the cysts on their being evacuated with a solution of bichloride of mercury in proof spirits, of the strength of two grains to the ounce. In one of the cases several applications were necessary, while in the other a single injection completed the cure.

I am, &c.
Aberdeen, December 11. WILLIAM REID, M.D.

SURGEONS IN THE MERCHANT SERVICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me, through the medium of your paper, to call the attention of Medical men to a subject which, I imagine, should interest all, especially the younger portion, many of whom, after obtaining their diplomas, spend the first year or two of their Professional life at sea? This subject relates to the position of Surgeons in the mercantile marine, not referring to the great mail companies, although there is room for great improvement even in them. Besides these, however, there are vessels to nearly all parts of the world that carry Surgeons as part of their complements, and these increase in number daily, and in them the position of the Medical man depends almost wholly on the captain.

Now, although I admit that it is requisite for the maintenance of discipline that there should be one head to every ship, I believe your readers, particularly those who have been at sea, will agree with me that there should be also some better-defined rules regarding the Medical man, who, in his profession, should be perfectly independent of any interference; and this is not incompatible with deference to the captain in everything respecting the safety and well-being of the vessel. 1. In the event of sickness on board among crews or passengers, has the Surgeon the power to order any food, wine, etc., that he may consider absolutely necessary for the patient? 2. Can he insist that the sick person should be properly nursed and attended, and if requisite, as in contagious disease, be placed separate from others? 3. Can he refuse, except in case of danger to the vessel, to perform any duties that are not connected with his profession? I know that in the majority of cases shipmasters would give anything that was requisite for the health and comfort of those on board, and I have found several who co-operated with me most fully and kindly; but, unfortunately, it often happens to the contrary, and the Surgeon's recommendations are taken no notice of, the patients almost perishing from the want of proper food and cleanliness, all remons rance being useless, and this, I believe, without redress. Should there be any laws concerning the foregoing, perhaps some of your readers will inform me, and will also favour me with their ideas. Besides this, there are numberless cases where, for want of recognised rules, the Surgeon is placed in a most unpleasant position by the caprice or ill-will of the captain. There are plenty of books defining the duties of masters and seamen; why not, then, for the Surgeon, who, in social status, education, etc., is superior to any on board? I am, &c. A SURGEON IN THE MERCHANT SERVICE.

A LEECH IN THE UTERUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly give the following case a place in your valuable paper?—

Mrs. M., aged 40, suffering from chronic metritis. Has had several children. Uterus natural size; os slightly open. I applied three leeches to the os through a Ferguson's speculum at 3.30, and kept my eye upon them until I supposed they had bitten. I noticed one had its head within the os. Presently my patient began to complain of most acute pain, but as the leeches had then considerably enlarged I could not distinguish one from the other. Two soon came away, but I could see nothing of the third. The pain was intense, so I withdrew the speculum and made a digital examination. The os was much more open than before, and I could introduce the tip of the forefinger, but could find no trace of the leech, except that the posterior wall of the uterus was very much distended. Called again at 5.45, but leech still within the uterus. The pain had, however, somewhat abated. Paid another visit at 8.30. My patient had been very sick, and the bowels had been relieved, and I had the satisfaction of finding the leech in the vagina. It was dead and its tissues lax, as if it had been filled with blood, of which I have very little doubt, as the uterus was so much distended. Now, all this might, of course, have been avoided by the ordinary precaution of plugging the os with cotton wool, but I had applied leeches so frequently without having recourse to it without any untoward results that I had begun to look upon it as unnecessary; but I will take care that no patient of mine shall ever suffer such excruciating pain again for the want of it. I am, &c.

HARRY GAGE MOORE, L.R.C.P. Lond.

7, Museum-street, Ipswich, December 17.

COMMUNICATIONS have been received from—

Mr. W. R. CORNISH; DR. HUGHLINGS JACKSON; MR. CHATTO; MR. T. GREEN; MR. SPENCER WELLS; DR. BARNES; MR. E. BELLAMY; DR. JUNKER; DR. BASTIAN; MR. H. RAYNES; DR. W. REID; G. M. H.; DR. BODINGTON; MR. SEDGWICK; MR. E. S. ROBERTS; MR. J. HUTCHINSON; AN INDIAN MEDICAL OFFICER; MESSRS. LETTS AND CO; MR. C. P. PHILLIPS; DR. WHITMORE; DR. W. OGLE; PROF. LAYCOCK; MR. GERMAN REED; MR. CHAPMAN; DR. H. G. MOORE; MR. W. BIRD; MR. J. THOMPSON; AN ADMIRER OF THE MEDICAL TIMES AND GAZETTE; A CANDIDATE; MR. D. E. BERNARD; MR. REBOUL; DR. WRENCH; MESSRS. DAWSON AND SONS; MR. CONSTABLE; MR. C. J. FOX; MR. COPNEY; ZETA; MR. BREMRIDGE; MR. CHAPMAN; DR. GERVIS.

BOOKS RECEIVED—

Hanover-square, No. 2—Cuffe on the Woodhall Spa—Pacific Medical and Surgical Journal, No. 6—Third Annual Report of the Tewkesbury Rural Hospital—Marshall's Outlines of Physiology—Third Annual Sanitary Report for Bengal.

NEWSPAPERS RECEIVED—

The Age—Jamaica Guardian—Jamaica Morning Journal—Tomahawk—Medical Press and Circular.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·947 in.
Mean temperature	38·4
Highest point of thermometer	50·8
Lowest point of thermometer	21·2
Mean dew-point temperature	35·6
General direction of wind	Variable.
Whole amount of rain in the week	0·30

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 14, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Dec. 14.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Dec. 14.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2146	1421	1700	50·8	21·2	38·4	0·30	30
Bristol (City)	165572	35·3	113	74	173	52·5	24·9	41·7	0·36	36
Birmingham (Boro')	343948	43·9	272	167	179	55·5	27·5	42·3	0·41	41
Liverpool (Borough)	492439	96·4	346	285	310	50·1	29·9	43·4	0·72	73
Manchester (City)	362823	80·9	233	205	‡252	..	..	..	..	..
Salford (Borough)	115018	22·2	124	58	66	50·1	28·9	42·2	1·31	132
Sheffield (Borough)	225199	9·9	182	119	120	49·7	27·7	41·7	0·52	53
Leeds (Borough)	232428	10·8	203	118	108	51·0	26·5	42·0	0·65	66
Hull (Borough)	106740	30·0	86	49	56	50·0	25·0	38·4	0·43	43
Newcastle-on-Tyne, &c.	124960	23·4	104	66	77	50·0	34·0	43·6	1·06	107
Edinburgh (City)	176081	39·8	112	85	110	49·7	34·0	43·9	0·30	30
Glasgow (City)	440979	87·1	304	257	279	..	..	..	..	..
Dublin (City and some suburbs)	319210	32·8	128	‡157	169	52·6	35·2	45·8	0·27	27
Total of 13 large Towns	6187764	34·8	4353	3061	3499	55·5	21·2	42·1	0·58	59
					Week ending Dec. 7.	Week ending Dec. 7.				
Vienna (City)	(1863) 560000	..	..	..	270	..	..	§29·9	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·947 in. The barometrical reading decreased from 30·15 in. on Monday, December 9, to 29·63 in. at the end of the week. The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 35·7°.

APPOINTMENTS FOR THE WEEK.

December 21. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

23. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

24. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

25. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

26. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Heat and Cold." (Juvenile Lectures.)

27. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 14, 1867.

BIRTHS.

Births of Boys, 1127; Girls, 1019; Total, 2146.
Average of 10 corresponding weeks, 1857-66, 1931·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	860	840	1700
Average of the ten years 1857-66	690·3	659·1	1349·9
Average corrected to increased population	..	..	1485
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West	463,388	2	11	3	1	15	6	2	..
North	618,210	10	10	7	6	5	8	3	1
Central	378,058	4	4	4	..	8	6	..	..
East	571,158	3	8	6	..	14	15	1	..
South	773,175	5	7	11	1	17	9	3	..
Total	2,803,989	24	40	31	8	59	44	11	1

TO THE MEMBERS OF THE UNIVERSITY OF LONDON.

Gentlemen,

On behalf of the Committee which has been formed to secure the return, as our Parliamentary Representative, of Sir JOHN LUBBOCK, Bart., F.R.S., Fellow of the University, we beg again to address you.

The main function of our University being, as we then pointed out, to promote liberal and scientific education, apart from all sectarian and other restricting influences, its political action must naturally be directed to the removal of all civil disabilities incurred on account of religious belief, to the vigorous development of national education on a broad basis, and to the active encouragement of science as an important element of general culture and an essential condition of national prosperity.

Sir John Lubbock has not only the will, but the power essentially to promote these objects in the House of Commons; for, while his intellectual reputation would give weight to his opinions, his ability as a speaker and character as a man of business would obtain for him a hearing that might be denied to any one more exclusively occupied in scientific pursuits. As the exponent of the large and increasing body of scientific men, he would thus take a position in Parliament which the Representative of the only English University granting Degrees in Science might naturally be expected to fill. The importance of this latter consideration has been already urged by various sections of our own body; but, in addition, Sir John Lubbock holds the political opinions which the University justly requires in its representative—opinions which earned him the hearty support of the whole Liberal party in West Kent at the last General Election.

Himself a distinguished worker in Biological Science, Sir John Lubbock not only understands and appreciates the claims of the Medical Profession, but would be able to press them upon the attention of Parliament and of the nation more independently, and therefore more effectually, than even the most eminent of our Medical Graduates.

In proof of the importance attached to the choice of the University by the most eminent men of science in the kingdom, and of the estimation in which Sir John Lubbock's numerous and important contributions to Science are held by them, we beg to refer you to the appended list of names of gentlemen distinguished in various departments of knowledge, and many of them intimately connected with the University or its Colleges, who have, at our suggestion, formed themselves into a Committee to co-operate with us in securing Sir John Lubbock's election.

W. S. SAVORY, M.B., F.R.S., *Chairman*,
F. W. FARRAR, B.A., F.R.S. (King's),
GEO. CAREY FOSTER, B.A. (University),
WILLIAM ODLING, M.B., F.R.S. (St. Bartholomew's),
P. H. PYE-SMITH, B.A., M.D. (Guy's),
} *Hon. Secs.*

F. E. Anstie, M.D.
T. B. Baines, B.A.
H. C. Bastian, M.D., M.A.
Richard Bithell, B.Sc.
Francis T. Bond, M.D., B.A.
A. Crum Brown, D.Sc.
Frederick James Brown, M.D.
Alex. Bruce, M.S., B.Sc.
John Rodham Carr, LL.D.
Rev. W. S. Chapman, B.A.
W. C. Coupland, B.Sc., B.A.
F. Crisp, LL.B.
J. L. H. Down, M.D.
Frank Sheppard Durham, M.A.
James Eccles, B.A.
Rev Fred. Edwards, B.A.
Rev. F. W. Farrar, B.A., F.R.S.
Frederick George Finch, D.Sc., B.A.
Clement Le Neve Foster, D.Sc., B.A.
G. C. Foster, B.A.

M. Foster, M.D., B.A.
F. W. Gibson, M.D., B.A.
Charles Graham, D.Sc.
Rev. Thomas Hincks, B.A.
J. Hooper, M.A., LL.B.
H. W. Kearns, B.Sc.
Gustav Knecht, B.Sc.
G. W. Knox, B.Sc.
James Henry Lakin, M.B.
Robert Eadon Leader, B.A.
Joseph Lister, M.B., B.A., F.R.S.
Patrick Martyn, M.D.
Edward Meryon, M.D.
T. Michell, M.B.
E. J. Mills, D.Sc.
Wm. Odling, M.B., F.R.S.
Rev. J. Bursell Payne, B.A.
J. F. Payne, B.A., B.Sc.
T. A. Pooley, B.Sc.

Henry Power, M.B.
P. H. Pye-Smith, M.D., B.A.
W. H. Ransom, M.D
W. Rivington, M.S., B.A.
Samuel Roberts, M.A.
Rev. T. G. Rooke, B.A.
W. S. Savory, M.B., F.R.S.
Edw. Smith, M.D., LL.B., F.R.S
William Frank Smith, M.D.
W. G. Soper, B.A.
T. Stevenson, M.D.
W. Turner, M.B., M.A.
H. Watts, B.A., F.R.S.
W. Whitaker, B.A.
P. H. Wickstead, M.A.
T. Wilson, B.A.
John Wood, B.A.
B. B. Woodward, B.A.
R. Wormell, M.A.

AUXILIARY COMMITTEE.

George Biddell Airy, M.A., D.C.L., F.R.S.
Thomas Anderson, M.D.
D. T. Ansted, M.A., F.R.S., Honorary Fellow of King's College, London.
Sir William Armstrong, C.B., LL.D., F.R.S.
Sir B. C. Brodie, Bart., F.R.S.
Sir David Brewster, K.H., LL.D., F.R.S.
George Busk, F.R.S., late Examiner in the University.
John Crawfurd, F.R.S.
Charles Darwin, M.A., F.R.S.
Warren De la Rue, F.R.S.
Wm. Farr, M.D., D.C.L., F.R.S.
Henry Fawcett, M.A., M.P.
Edward Frankland, F.R.S., Professor of Chemistry, Royal School of Mines.
J. P. Gassiot, F.R.S.
Thomas Graham, F.R.S., Emeritus Professor of Chemistry in University College, London.
William R. Grove, M.A., Q.C., F.R.S.
Rev. Robert Harley, F.R.S., Professor of Mathematics and Logic in Airedale College.
Sir John F. W. Herschel, Bart., K.H., D.C.L., F.R.S.
James Heywood, M.A., F.R.S., Member of the Senate.
T. Archer Hirst, F.R.S., Professor of Mathematics in University College, London.
J. D. Hooker, M.D., D.C.L., LL.D., F.R.S.
T. H. Huxley, LL.D., F.R.S., Professor of Natural History in the Royal School of Mines, Examiner in the University.
J. Gwyn Jeffreys, F.R.S., F.L.S., F.G.S.
Rev Philip Kelland, M.A., F.R.S.
Sir Robert Kane, M.D., F.R.S.
T. Hewitt Key, M.A., F.R.S., Professor of Comparative Grammar in University College, London.
Sir Henry Holland, Bart., F.R.S.
Sir Charles Lyell, Bart., D.C.L., LL.D., F.R.S
David Masson, M.A., LL.D., late Professor of English Literature in University College, London.
Max Müller, M.A.
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ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE ACTION OF NARCOTISING GASES AND VAPOURS.(a)

(Concluded from page 616.)

MONOCARBON SERIES.

HAVING investigated by experiment the anæsthetic action of nitrous oxide gas and carbonic oxide, we will pass to those series of bodies on our table which belong to the monocarbon series. We find here light carburetted hydrogen, hydride of methyl, methylic alcohol, chloride of methyl, bichloride of methylene, terchloride of formyle, and tetrachloride of carbon.

Bichloride of Methylene.

I cannot undertake in this lecture to exhibit the action of all the bodies of this group. I, therefore, content myself by selecting one in illustration—the bichloride of methylene. With the physical properties of the bichloride I need not trouble you, because a lecture has already been specially devoted to the study of the substance. But I wish you to observe the action of the anæsthetic again, inasmuch as it is typical of all the group of the chlorides of the monocarbons. To see the symptoms well, we will narcotise slowly. A pigeon is again the subject: it is the hundred-and-thirteenth time this bird has been narcotised by the agent, but it has never suffered in the least. By narcotising slowly, we develope all the stages or degrees of sleep—a first degree of slight excitement; a second degree (and in this case very short, not more than a second or two in duration) of rigidity; a third degree of relaxation and complete insensibility; and, pushing the inhalation a shade further, that extreme degree, fourth degree, of prostration, which is immediately preliminary to death. We now remove the animal; it will remain unconscious, probably, for half an hour or more, and will then suddenly recover.

I say this substance is a fair type of all its allies, and this is true; but it has certain different points of action, which mark it off. It narcotises more quickly in an open chamber than the chloride of methyl, because its vapour is so much heavier —42·5 to 25·25—and is therefore less readily diffused in the air and lost, and it narcotises more quickly than chloroform, or tetrachloride of carbon, because its vapour, quite heavy enough for inhalation, and lighter than the vapour of chloroform in the proportion of 42·5 to 59·75, and lighter than the vapour of tetrachloride of carbon in the proportion of 42·5 to 77, is more easily diffusible from the air vesicles of the lung into the blood than its heavier comrades, for reasons we shall see in the sequel.

Before I leave the bichloride of methylene, let me say a word in reference to its action on the human subject. I have now administered the bichloride for the performance of nine capital operations. In one case the insensibility was sustained for an hour and seven minutes; in no case was the insensibility less than thirty-five minutes. In all there was the same order of phenomena as that we have just seen—a brief first and second stage, a rapidly developed third stage, and a very prolonged and deep anæsthesia. The same results have been obtained by my friend, Mr. Peter Marshall, one of the earliest students and practitioners in anæsthesia, and by Dr. Junker.

In one of my cases only was vomiting a symptom during the anæsthetic condition, and in that case the vomiting was not, I think, strictly attributable to the narcotic; it was also very slight, a single effort with eructation causing the loss of about a table-spoonful of fluid from the stomach.

The prolonged anæsthesia after free inhalation of the bichloride of methylene is a striking feature in its action, and has, I understand, been a cause of some anxiety. There is no occasion for anxiety from, nor for interference with, this sleep; it passes off quite naturally if time be allowed, and what is more, it passes off leaving no headache and no feeling of depression behind. In most cases of operation, the prolonged anæsthesia is indeed of advantage, the sleep being so quiet, so undisturbed, so gentle, and so easily sustained by the briefest renewal of the administration of the vapour. I had an opportunity of obtaining a comparison from one of my patients respecting the difference of effect between chloroform inhalation and inhalation of bichloride of methylene. This patient, some years ago, was narcotised with chloroform by Dr. Snow; she was narcotised with bichloride of methylene by myself, to enable Mr. Spencer Wells to perform the operation of ovariotomy. She was a very acute observer, and most precise in her definitions. A few days after the operation Mr. Wells was so good as to take me to her, when she explained her differences of sensation under chloroform and under the bichloride of methylene. Her sensations under chloroform as she began to inhale it were those of oppression of the breathing, loud noises in the head, ringing in the ears, and a feeling of absolute necessity to get up and resist the further administration; on recovery from the chloroform, she felt an indescribable sense of exhaustion, an intense nausea, and a headache which lasted for many hours. By the inhalation of the bichloride of methylene she escaped, she said, every one of these annoyances. She dropped into sleep as into natural sleep; she awoke as out of natural sleep, with not one painful symptom; in all, it was as though she had closed her eyes and opened them again, the intervening space of time during which the operation had been performed, and which, with after sleep, had reached fifty-five minutes, having been altogether inappreciable to her mind.

With the facts I have carefully collected before me, I have no hesitation now in stating that bichloride of methylene as a general anæsthetic is at least as safe as chloroform, and that it possesses certain advantages of its own which give it a better position amongst anæsthetics than chloroform. The only obstacle to its success is the difficulty of its manufacture and its consequent greater cost than the cost of chloroform; but I should trust that in time this obstacle will be overcome. Administered internally by the stomach in doses of from ten to twenty minims, bichloride of methylene is a good anodyne. To make our studies complete, we have let an animal—a rabbit—sleep to death in bichloride of methylene. The action of the heart and of the muscles of respiration ceased at the same moment. I will pass the dead animal round, and you will see that the lungs are of natural colour, and that the heart contains blood on both its sides. In the trough with the animal is some blood saturated with the bichloride. The colour of the blood is bright red, but the fluid has undergone a feeble coagulation. The coagulum is not of fibrin, for the blood was defibrinated at the time it was abstracted, it is a clot of albumen and red corpuscles. This is a peculiarity of action of all these chlorine compounds; they cause coagulation of defibrinated blood. In this direction the bichloride is less effective than chloroform, and chloroform is less effective than tetrachloride of carbon, but the tendency is distinctly indicated in the specimen under observation.

THE DICARBON OR ETHYL SERIES.

Amongst the ethyl compounds there are several which might well engage us in the way of experiment. Heavy carburetted hydrogen gas, C_2H_4, of which there is a fair percentage in common coal gas, acts as a good anæsthetic. Ethylic ether, or, as it is commonly called, rectified ether $(C_2H_5)_2O$, is of moment historically not less than physiologically. It retains its place in many hands yet as the best and safest of the general anæsthetic compounds. That it has led to a smaller mortality than its younger rival, chloroform, is certain; but it is less ready, and, on the whole, less effective. It is less ready and less effective than chloroform, because of its lower boiling point and the comparative lightness of its vapour; it evaporates so quickly, and it diffuses itself so quickly in space, that in the act of administration, in the ordinary way, it is lost too easily. These two points, which are all in its favour when we use it in the form of spray for local anæsthesia, are against its general application. The chloride of ethyl C_2H_5Cl and the bichloride of ethylene $C_2H_4Cl_2$ (Dutch liquid) are both good anæsthetics: the chloride of ethyl in this the dicarbon series, is the analogue of the chloride of methyl in the monocarbon series. The bichloride of ethylene, in like manner, is the analogue of the bichloride of methylene. The bichloride of ethylene has successfully been experimented with and tested by Snow, and also by Nunneley, whose labours in anæsthesia have been most excellent. I have narcotised animals with it. Its boiling point is a little higher than chloroform, which fact tells against it; its vapour density is lower, which fact is rather in its favour. Its vapour burns in air.

Chloride of Ethyl.

The chloride of ethyl is the substance from amidst this group

(a) Delivered on Tuesday, November 12.

which we will select for experiment. It exists only as a fluid at 52° Fahr., and we have, therefore, to keep it by saturating common ether with it. We place a pigeon in the usual chamber, and then diffuse the vapour of the chloride through the chamber from the ether solution by means of gentle warmth not exceeding 70° Fahr. The density of the vapour, taking hydrogen as unity, is 32·25. The period for producing narcotism with this vapour is of necessity prolonged, and the vapour requires to be pushed freely and vigorously into the chamber, or it will produce little more than excitement. The excitement is rather great, but in a minute or two the animal succumbs. The breathing is short and oppressed, and the anæsthesia is not deep. During recovery there will possibly be some convulsive action.

We have allowed an animal—a rabbit—to sleep to death in this vapour, and the body is open for your inspection. The lungs, you will observe, are engorged, and the right side of the heart is distended, the left side being empty. Blood exposed to the vapour retains its colour, but is dense; it is feebly coagulated. The vapour, when I plunge a taper into it, burns.

Amyl Series.

In the amyl compounds, three of which are before us, the carbon molecule is increased, so that, as compared with the methyl group, it stands as five to one. I have placed forward three of the amyls—viz., amylic alcohol $C_5H_{12}O$, amylene C_5H_{10}, and hydride of amyl C_5H_{12}. *Amylic alcohol*, or fusel oil, is a substance the action of which I have studied with much care, and some of you may remember that in a lecture during last session, a guinea pig, deeply narcotised by the vapour of this alcohol, was placed on the table. The high boiling point of the substance renders it too slow of action to make it a practicable anæsthetic, but it nevertheless will produce an intense intoxication, which will last for periods of sixteen and even twenty hours.

Amylene is well known as an anæsthetic, owing to its introduction, in place of chloroform, by the late Dr. Snow. Snow administered amylene to the human subject a great number of times, and the insensibility produced was sufficient for the painless performance of the most severe operations. Unfortunately two persons died from the administration in Snow's own hands, upon which he returned to the use of chloroform, and to the end of his useful and vigorous life he continued to keep to the practice of administering chloroform only. The action of amylene is somewhat special. Having a very low boiling point, 90° Fahr., it requires, like ether, to be administered very freely; but its vapour being heavier than that of ether—viz., as 35 to 23—its diffusibility is less rapid. It has this singular property—that when patients are under its influence, although they are not conscious of pain, and are not conscious of their own acts, they are yet sometimes capable of performing certain acts which, to the lookers-on, resemble acts of consciousness. In fact, it produces a condition closely analogous to the condition known as somnambulism.

The Hydride of Amyl.

In illustration of the effects of an amyl compound, we will take the hydride of amyl, and perform an experiment with it. The hydride yields a rather pleasant vapour. It boils at 86° Fahrenheit, and its vapour has a density of 36—*i.e.*, it is thirty-six times heavier than hydrogen. We place a pigeon in a chamber as before, and pour in the vapour of the hydride of amyl. The narcotism in all its stages is very much the same as that produced by the bichloride of methylene. In America a light petroleum has been used for causing general anæsthesia, which, from its action, is, I think, this same hydride, or a compound containing it in large proportion. If an animal be made to sleep to death with hydride of amyl, the respiration and the circulation cease together, and the lungs are left free of congestion, but not blanched as after chloroform. The heart contains blood on both its sides. The hydride slightly darkens blood, but does not produce any coagulation of defibrinated blood, in which points it resembles the other bodies of the amyl family. The vapour of the hydride of amyl burns, as you observe, in air, as do the vapours of amylene and amylic alcohol.

Hydride of Caproyl.

We have before us a specimen of the hydride of caproyl, C_6H_{14}, a body still richer in carbon. It boils at 154° Fahr., and the density of its vapour is 43. It has 11 degrees of higher boiling point than chloroform, and a lower density of vapour—viz., in the proportion of 43 to 59, hydrogen being unity.

The hydride of caproyl was new to me until to-day, when it was brought me by Dr. Versman, but from its physical characters I had predicted that it would prove a true anæsthetic, which prediction on experiment turns out to be correct. We will perform now an experiment with it, making a pigeon the subject. We will use the fluid as if we had chloroform in our hands. As will be observed, the stage of excitement is prolonged, and the animal is made to vomit. In time the third degree of narcotism is induced, and insensibility is perfect; recovery will begin in from two to three minutes, and will, I think, be safe and sound. I do not suggest from or by this experiment that the hydride of caproyl should be used in lieu of chloroform, but I show the experiment as a demonstration of the truth that, with our present knowledge of the action of anæsthetics, we may safely undertake to predict from theory what are anæsthetics, and what will be the extent and character of their action, their physical dispositions being known. A rabbit has been made to sleep to death in the hydride of caproyl, and its structures are before you. The lungs are rather blanched, but the heart holds blood on both sides. The hydride of caproyl slightly darkens blood, but does not produce any coagulum. Its vapour burns in air.

There are two other substances named on our table—viz., benzol C_6H_6, and turpentine $C_{10}H_{16}$. These may be considered as actual, but not practical, anæsthetics.

Benzol was submitted to experiment by Snow, who reported upon it, and who even administered it to the human subject for operation. He held it to be a fair anæsthetic, but objected to it on the ground that it produced tremors, and in one case, where the narcotism was carried deeply, violent convulsions. My own experience with it on animals tallies very closely with that of Snow. The boiling point of benzol is 180° Fahr., the vapour density 39. The vapour burns in air.

Turpentine has been reported by a writer in the *Lancet* as a safe anæsthetic when used as a vapour by inhalation. It was employed at sea in an emergency for an operation on the human subject. I have narcotised a pigeon with turpentine vapour, but the process was slow. The anæsthesia was very good, and there was an absence of irritation of the throat which was remarkable; the recovery also was sound. The boiling point of turpentine is 320° Fahr., and its vapour, which has a density of 68, burns in air.

Two other substances which have been tried as anæsthetics are, by accident, omitted from our table; I mean bromoform and bisulphide of carbon.

Bromoform, or bromide of formyle, is a compound in which bromine fills the place of the chlorine of chloroform. The boiling point of bromoform is 180° Fahr., and the density of the vapour 126. The vapour narcotises slowly, but effectually and safely.

Bisulphide of carbon was introduced by Dr. Harald Thanlow, of Christiania, in the year 1848, as a substitute for ether. It was soon afterwards tested by Snow and Simpson, the latter administering it twice to the human subject. I have administered it to animals. Although it is a most fœtid substance, the vapour can be inhaled with comparative safety, and anæsthesia, very much resembling the anæsthesia caused by ether, is the result; but there is great muscular rigidity, and no one would now think of using this body for anæsthetic purposes, except in the way of experiment. The bisulphide of carbon boils at 108° Fahr., and the density of its vapour is 38. Its composition is $C.S_2$.

Compound Fluids.

I have placed at the lower part of the table two compound fluids—viz., chloride of methyl in ether, and chloride of methyl in chloroform. We have before us these compounds made by Dr. Versman. In both, the chloride of methyl saturates the liquid which holds it. The chloride in chloroform is a most potent anæsthetic, rapid in action and very permanent in effect. We will place a pigeon in the chamber, and using the compound as if it were chloroform, we will pass the vapour through the chamber. The effect is perfect narcotism in seventy seconds, without any excitement. The sleep will probably last for half an hour. I know of no other compound so active as this; the objections to it are its extreme activity, and its liability to lose its gaseous part under different temperatures. I shall have more to say about mixtures of anæsthetics in the proper place.

Résumé.

And now, with these experimental facts fresh on our minds, let us conclude by dwelling for a moment on one or two lessons taught beyond question by that which we have seen.

The first lesson is that the chemical composition of a vapour cannot of itself be taken as determining the narcotic power of the vapour. I mean by this that narcotic properties do not

belong exclusively to one particular family of chemical bodies. Indeed we may have analogous symptoms from two bodies the elementary composition of which is altogether different. In illustration of this fact take the two substances, nitrous oxide (N_2O) and benzol C_6H_6. It may, nevertheless, be urged that in every case except one, each anæsthetic has carbon for its base; and this is a fair argument, pointing to a very significant order of facts. But even on this basis the variation of type is very large. The anæsthetic may be a pure hydrocarbon, a hydrocarbon with chlorine, a carbon with chlorine, a hydrocarbon with bromine, a carbon with oxygen, and even a carbon with sulphur. These variations, I repeat, are so wide that we cannot at this moment see anything like a purely chemical explanation of the phenomena of anæsthesia—*i.e*, an explanation founded on the molecular constitution of the anæsthetic vapour.

A second lesson taught us by these experiments is that the physical character of the anæsthetic vapour in respect to its power to suspend combustion, affords no explanation of anæsthetic action. We have seen bodies which support combustion, bodies which stop combustion, and bodies which burn, all acting as true anæsthetics. They do not, therefore, all—they cannot all act simply, by their presence, as suppressors of combustion, nor can anæsthesia as a process be considered a process involving an arrest of animal combustion as a dire necessity. If this were so, the whole of the phenomena would be different from what they are; recovery from deep anæsthesia would be a matter of days instead of minutes; the body universally would become of chilly, deathly coldness—cyanotic; and death itself, in the feeble, would be of constant occurrence. The hypothesis of an extinction or suppression of combustion from anæsthetics, with its analogy to the extinction of flame, was beautiful, I admit, but we must trust it no longer. It directs us not the way we should go, and it is apt to deceive us in our research beyond what we may be able to recall if we do not turn back and inquire anew.

A third lesson which we have to learn is to be collected from the relationship which exists between the action of anæsthetic vapours and their densities and their rates of diffusion—their rates of diffusion into air, and their rates of diffusion through the pulmonary membrane into the blood. Here we come upon laws of a physical kind which are definite and simple, and I have a few experiments ready at hand in the way of introductory illustration. To push these forward at this time, however, and after so many experiments have been performed, would be to open a new line of research imperfectly, and to confuse, perhaps, some of the recollections of what has gone before during the hour. We will therefore not enter minutely on these new demonstrations, but will allow them and the subject of the diffusion of anæsthetic vapours to stand over as texts for the next lecture.

ORIGINAL COMMUNICATIONS.

CASE OF

POPLITEAL ANEURISM IN AN ADVANCED STAGE SUCCESSFULLY TREATED BY LIGATURE OF THE FEMORAL ARTERY.

By JOHN D. HILL, F.R.C.S.,
Surgeon to the Royal Free Hospital.

Various methods of treatment have been adopted in popliteal aneurism with satisfactory results, but in a given case the pathological conditions must offer special indications as to which course it is most desirable to pursue. In the selection of a particular remedy, the temperament of the patient has also to be considered with regard to the amount of assistance or toleration which is likely to be afforded in conducting the case to a successful issue. The following case I am induced to record.

Wm. A., aged 36, a painter by trade, residing in Pembroke-street, Islington, was formerly an out-patient of the Hospital, but subsequently under the care of Dr. Lamb, with whom I was called in consultation.

History.—Family history good, enjoyed tolerable health until he met with an accident in the year 1863. He writes the following account of his own case. He says:—"I sprained my knee somehow and shortly afterwards felt a gnawing pain there, and could hardly put my foot to the ground. I rubbed it with soap liniment, and this sent the pain away; after four or five days I felt no more of it until March, 1864, when it came in my leg and foot, my leg and foot swelled, and I felt a lump under my knee. I applied soap liniment again, which seemed to relieve it for a week or two, when it returned again. From March, 1864, I became subject to cramp in my leg, which gave me great uneasiness, and lasted until October. My leg then swelled suddenly, and the pain went away until November; then it began to pain under my knee and instep. The lump under my knee was larger than before. I applied soap liniment again, but with no benefit. From December 23, 1864, I began to get worse, and could not walk without a stick; worse and worse I became, never being free from pain, and from January 9, 1865, I never slept night or day until the 19th, when I went under an operation. The pain then left me. The string was drawn away twenty-two days afterwards, and three days after that the wound healed up sound. I kept my bed for seven weeks in one position, then began to sit up, but could not stand on either leg. A fortnight after that could stand on one leg, my bad leg being fixed on a splint. I got stronger every week, and then got about with crutches, swinging my leg. Now I can stand on both legs, and bend my knee without any assistance.

"May 24, 1865." (Signed) "W. C. H. A.

I saw this man on January 17, 1865. He was in a very excited state, his countenance being expressive of great bodily suffering. On examining the limb I found the whole left lower extremity swollen, the knee being partially flexed, and the thigh drawn up on the abdomen and fixed; there was œdema of the limb, effusion into the knee-joint, turgidity of the superficial veins of the limb generally, and articular veins in particular, and absence of pulsation in the anterior and posterior tibial arteries at the ankle. The lymphatic glands in the inguinal and femoral regions were hard and tender. A tumour filled the popliteal space, bulging on either side, the hamstring muscles forming its lateral boundaries. The tumour extended backwards, the integument being stretched tightly over it, forming but a thin covering. The skin was hot, shiny, and somewhat ecchymosed, the least pressure producing pain. An impulse could be seen and felt, and the whole tumour expanded with each beat of the pulse (76 per minute). Posteriorly a liquid thrilling impulse was communicated to the hand, and a loud systolic bruit to the ear. The aneurism in this situation was almost subcutaneous, being covered only by a thin layer of integument, with turgid vessels coursing beneath the surface of the skin. Moreover, he complained of a severe burning pain in the knee and foot, and numbness in the toes. When pressure was applied to the femoral artery below Poupart's ligament, pulsation in the aneurism ceased. Measurements of limb:—Right side: Above the knee, 14 inches; below the knee, 12½ inches; around the knee, 14 inches. Left side: Above the knee, 16 inches; below the knee, 14½ inches; around the knee, 20 inches. The patient having been thoroughly examined, an operation was proposed, which at first he would not entertain, but on the 19th he consented. Chloroform having been administered, I proceeded to ligature the femoral artery at the apex of Scarpa's triangle, in the following manner:—The limb being in the same position as heretofore, I commenced an incision 1½ inches from Poupart's ligament, carrying it downwards from 4 to 5 inches in extent, dividing the skin and fat, and one or two turgid veins, which were ligatured. A director was next inserted beneath the fascia lata, which was then slit up, the sartorius muscle being pulled well outwards. The sheath of the vessels was next seen and carefully opened, and the artery examined. The artery was very large, and a white patch was seen at the apex of Scarpa's triangle. The aneurism needle was passed from within outwards (a little above the white patch) until the point could be seen between the vein and artery covered by areolar tissue. With one slight touch of the scalpel the needle passed through, the ligature was seized, and the needle withdrawn. The artery was then compressed between the finger and the ligature, whilst the left hand explored the aneurism. All pulsation was found to have ceased. The ligature was next secured, the edges of the wound approximated with suture, strapping, and a bandage. The limb was then enveloped in cotton-wool and oiled silk, and fixed on a back splint at an angle of 45°. Six hours after the operation I examined the limb. The tumour was reduced in size, the effusion in the knee joint absent, the œdema of the foot and leg diminished, the temperature of the foot normal, and the patient in a sound sleep. I ordered him ℥ss. doses of tincture of iron (tinct. ferri sesquichlor.) every four hours, a good nourishing diet, with plenty

of animal food, and four ounces of brandy to be taken in a small quantity of water at intervals.

20th.—Passed a good night. Has lost all pain and numbness since the operation.

21st.—Slept well; wound healed by adhesion, except where the ligature protrudes; sutures removed; bowels have acted; appetite good. From this time the man progressed most favourably. The limb was fixed on the splint for a month; the tumour being examined from time to time. The ligature separated on the twenty-second day, and in three days afterwards the wound had healed, the popliteal tumour at that time being no larger than an egg. The medicine was then discontinued.

The knee was next strapped with emplast. ammoniaci c. hydrarg., adjusted to a short back splint, and the whole enveloped in a starch bandage. In the course of four weeks he could get about on crutches. The aneurism by this time was about the size of a walnut, and of firm consistence. Four months from the date of the operation, he could flex and extend his knee without the least difficulty, and the tumour was gradually getting smaller. July 7, 1867, two years and a half afterwards, I find no difference in the limbs; the obliterated vessel can be felt as a solid unyielding cord; the cicatrix is three inches long.

November, 1867.—He was seen in the neighbourhood a few days ago in good health.

In an aneurism of this description there appeared to be only one course to pursue. The swollen state of the limb, the tenderness of the glands, and the irritable condition of the patient precluded compression of the femoral by the clamp. The thin posterior wall of the aneurism, and the tendency to inflammatory action in the sac, together with the ecchymosed superficial structures, rendered treatment by flexion a dangerous proceeding, not only from the risk of bursting the aneurism or increasing inflammatory action, but from the further impediment to the venous circulation. For it will have been observed that the tumour obstructed the popliteal vein—hence the dropsy of the limb—that it had almost worn out the patient by its pressure on the nerves, and that some recent inflammatory action, probably commencing in the sac, had lighted up irritation in the absorbent glands. The arterial supply to the extremity was probably carried on by the anastomotic vessels, which pointed in favour of the deligation of the vessel. The swollen and fixed condition of the limb, the engorged veins, and the depth which the artery coursed from the surface, contributed to a difficult operation.

Mr. Thomas Wakley, Mr. John Foster, and Dr. Lamb kindly lent me their assistance at the operation.

17, Guildford-street, Russell-square.

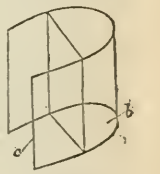
EARTH SEWAGE.

By E. HARE,
Inspector-General of Hospitals, C.S.I.(a)

Dry Earth Sewage.

The dry earth sewage system will eventually, when old habits have been overcome, prove one of the greatest improvements of the age in our social economy. The present system of water-closets, though more convenient than the old privies outside the house, is, I am convinced, far more prejudicial to health; for even in the houses of the wealthy they are never free from smell, and every time the valve is opened foul air is admitted from the drain into the house. The smell from the privy outside was very filthy, but still it was in the open air, and only endured for a few minutes; whereas we breathe day and night the foul air from the water-closets which we have now fixed within our houses, and even close to our sleeping rooms. By habit we become accustomed to bad smells, for a druggist does not smell the drugs in his shop, a nightman a sewer, or a student of anatomy his dissecting room. When I lately arrived in England after long residence in India, where we have no water-closets, I could always smell them on entering an hotel, and generally in private houses, but after nine months' habit I am now becoming used to the smell, and, except in the closet, rarely notice it; but it nevertheless exists, and must be exceedingly injurious to the health, for by breathing habitually foul air (especially at night, when the houses closed, and the noxious gas is not diluted with fresh air from outside), our blood, and every part of our body, becomes saturated with gas formed from the foulest mixture of excrement; and if this is the case in the private houses of the wealthy, still more is it found in hotels, Hospitals, workhouses, and prisons. I would myself far rather run round the corner of the yew hedge to the garden privy, through frost and rain for ten minutes, than breathe all night the excrement of the inhabitants of an hotel, which I am constantly now obliged to do, not only on the Continent, but in some of the best hotels in England.

My readers are no doubt aware that the Indian Government has recently granted £500 to the Rev. H. Moule as a reward on the proved success of his dry earth system in India. During its experimental trial, I was an Inspector of Hospitals in the Agra and Lahore districts and in Central India—a circle including half the province of Bengal—and I superintended the experiment in all the European and native barracks, Hospitals, gaols, and Infirmaries throughout this district, and the reports from the Surgeons in charge were sent by me, with my own remarks, for the information of the Indian Government; and I received a letter of thanks from the Commander-in-Chief for my report. I, therefore, have had large personal experience of the working of the dry earth system, and am anxious, as I have greatly been instrumental in accomplishing this beneficial reform in India, to do my best to improve our system in this country. When we first attempted the change in India, there was a general impression that some disinfecting or deodorising properties existed in the earth used, and the question arose, What kind of earth is best? and most unfavourable letters were forwarded to me from all parts of my district, reporting that the quantity of earth required was very great and expensive to supply, and that it increased largely the bulk, and cost of removing the sewage. The experiment, indeed, must have failed, had not this objection been removed; but after inquiry I found that water and urine were allowed to be mixed with the fæces. The urine naturally fell upon the fæces in defecation, and in India it is the custom of the natives to carry a brass pot filled with water, to wash themselves, instead of using paper. The result was that the mixture, unless a very large quantity of earth was added, was a semi-fluid mass, which caused as much smell as if no earth had been added; for it is a mistake to suppose that earth will deodorise fæces as charcoal or chloride of lime will deodorise meat. The dry earth system must be dry, or it is worse than useless.



I, therefore, recommended a division of zinc or other metal to divide the privy seat to the bottom, so that the fæcea might fall behind at *b*, and the urine run off by a channel at *c* into a separate receptacle, and the man washed himself over the urine gutter, so that no moisture was mixed with the fæces behind. By this simple arrangement the experiment was a complete success, for it was found that if the fæces were covered with only an equal bulk of earth, they became a dry mass free from smell, and could be removed with ease for agricultural purposes. In fact, the natives eagerly applied for it for their fields, and removed it without charge; and many of the gaols which had vegetable gardens attached to them, used it for their gardens, without the slightest bad smell, and it produced magnificent crops. I then carefully inquired, What was the best kind of earth to use? Vegetable mould, dried and pulverised clay, and pure sand were tried, and the sand was found quite equal to any of the former in deodorising the fæces. In fact, the results of the experiment proved that dryness was the only requisite, and that with healthy fæces unmixed with urine, only an equal bulk of earth was necessary.

Those who have travelled in the East will know that in Turkey, Constantinople, Cabool, Persia, and in all Eastern cities, the common "necessary" is the flat mud roof of the house, where the fæces quickly dry, and are used as fuel to heat the public baths. In China also, the dried fæces are sold at a high price, and used as manure for the fields. Our English water-closet system is the worst possible, for by it each ounce of fæces is dissolved in nearly a gallon of water, and mixed with urine and the washing of the house; thus making the compound as deleterious and bulky as possible, and which it is impossible to utilise. Urine by itself is not offensive, nor are the ordinary washings from a kitchen or washhouse, but they become so when mixed with fæces. If not thus mixed, they would run off by the drain of the house without offence to any one. We ought, in fact, to apply to our houses the same method which we use in our stables; for we there collect the dung dry and utilise it, and allow the urine and the washings of the stable to run off by the drain. Moule's patent earth

(a) Read before the Metropolitan Association of Medical Officers of Health, December 21, 1867.

closet might, therefore, be greatly improved if a similar division were brought from the bottom of the pan, nearly to touch the buttocks, across the middle of the seat, and a hole made in the front division to allow the urine to escape in front without contact with the fæces behind. It requires at least three times more earth to saturate this urine than to cover the fæces. A saving, therefore, of three-fourths of the quantity of earth would thus be effected. In fact, the cinder dust alone would in most houses be sufficient for the supply of the closet, the manure would be richer and more valuable, and the general receptacle for the sewage would not require to be so often emptied.

The slightest inconvenience will prevent private houses from changing their arrangements, and the difficulty of introducing a large quantity of earth into the house will, I am convinced, prevent many private families from altering their closets; but if my division be used in the pans this objection will be entirely removed; for from one, to one and a half pounds of dry earth daily will be sufficient for each person, and the cinder dust of the house will generally supply this quantity. The manure also being richer, contractors will pay more for the privilege of removing it, and each house will not require their visits by three-fourths longer interval. Moule's self-acting closet will act admirably with this alteration; for sitting down on the seat supplies the earth, and drawing a handle opens the valve, and allows the fæces to fall into the common receptacle, at the bottom of the house, which may be cleaned out once a year. The urine can run off by a pipe in front into the main drain of the house; for urine diluted with water gives no smell, and the general washings of the house, if not mixed with fæces, may run away by the drain without causing nuisance, just as it does from our stables. The cinder dust of the house, instead of being emptied into the dust hole, can be put in the reservoir of the closet every morning.

Sand and cinder dust flow as freely as water. Our common water-closets, therefore, could be converted without much expense into earth closets. The division in the pan to separate the urine is equally necessary in Moule's portable earth commode for the sick; for the far smaller quantity of earth required makes it lighter to carry, and the urine can easily fall into a separate receptacle attached in front. I am, therefore, convinced that if my simple improvement be adopted, it will facilitate greatly the introduction of this admirable system into our private and public buildings. Indeed, there is no longer any excuse why all our Hospitals, gaols, and poorhouses should not at once use it as we do, and have done for three years in India. The economy of the system is evident, for the sewage can be sold, and the apparatus cannot freeze, and get constantly out of repair as our water-closets do.

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Medical Times and Gazette.

SATURDAY, DECEMBER 28, 1867.

ANNUS MEDICUS, 1867.

The Medical year, 1867, has been, from an historical point of view, rather an uneventful one. The usual battle with disease and death has been patiently and arduously fought, and science has actively and steadfastly progressed. But the year has not been distinguished either by any great and marked advances in the science or art of Medicine, or by any special and fatal onslaught of disease. We have happily not had to record any wide-spread or devastating epidemics, and, on the whole, the state of the public health has been satisfactory; that is to say, the rate of mortality has been not above the average of ten years. Unfortunately we are still without any public records of the amount of sickness, so that it is not possible to say whether the year has really been a healthy one or not. We will hope that as the vast importance to sanitary science of extensive and trustworthy records of the rates of sickness, as well as of mortality, becomes more generally and fully recognised, the Government will acknowledge the imperative duty of providing us with authentic weekly statistics on this subject.

There have occurred some local outbursts of fever which, as especially the outbreak at Guildford, have preached in terrible language, in the startling tones of the angel of death, the frightful and inevitable dangers of an impure water-supply, enforcing on even the most careless and ignorant the paramount necessity of unwearying and incessant vigilance against the possibility of the water-supply being, in any part of its course, tainted by sewage. The Profession continues nobly to teach the science of the prevention of disease, but the ignorance and "the careless coldness of the times" offer a passive resistance of terrible strength against all its lessons. The new Gresham Professor of Medicine, Dr. E. Symes Thompson, whose able introductory lecture we have had the pleasure of publishing, has most judiciously taken this subject as the text of his discourses, and we may fairly expect that not a little good will result from his efforts to diffuse some real knowledge of sanitary science among the citizens of London. The greatest and most crying want of the day, however, is, we believe, some really large and comprehensive measure for providing decent and healthy houses for the poor. Health Bills and Sanitary Acts must remain in a great degree dead letters so long as the houses, bad though they may be, of the labouring classes can be swept away by thousands at a time without any provision whatever being made for supplying their place. Improvement from the face of the earth carried out after this fashion only leads inevitably to increased overcrowding, squalor, filth, and disease of all sorts elsewhere, converting whole streets into such fever-nests, and dens for the production of stunted and degenerate bodies and brutalised minds, as are the despair of sanitary reformers and philanthropists, and the shame and opprobrium of a Christian Government.

Workhouse reform has occupied to a considerable extent the attention of the Profession and the public. The mismanagement of some of the Workhouse Infirmaries and casual wards in the country seems to be as great as it has been shown to have been in certain instances in town; but the Legislature is slow to move effectually in the matter, and though an Act—the Metropolitan Poor Bill, which is very good as far as it goes—was passed into law last session, but little has yet been done towards remedying the reprehensible state of things brought to light. At present the felon is often better and more tenderly cared for than the pauper; and though we are far from wishing to see the pauper petted at the expense of the poor and struggling ratepayer, yet no excuse can be found for the misery and suffering that have been allowed to exist, and still exist, in some of our workhouses. A great and radical change and reform there must be in the organisation and management of poor-law relief; but the additional expense that may be required ought not to fall on the ratepayer, but to be provided by the consolidated fund and the true Christian charity of the wealthy, and if real and lasting good is to be effected, the upper classes must give, also, constant active personal assistance and supervision. Parliament was too much occupied last session with the question of Reform to give much attention to matters of domestic legislation, and will, we fear, be to some extent absorbed by the same topic next year, so that, however pressing and urgent sanitary and like questions may be, we have but little hope of any vigorous and useful legislation on them from the present Parliament.

A "Vaccination Bill," with many faults of commission and omission, which were strongly but vainly protested against by the Profession and by Mr. Vanderbyl, Dr. Brady, and some other members of the House of Commons, was passed "with all its imperfections on its head." A good and very greatly needed sanitary Act, for the protection of our mercantile seamen against scurvy and other preventible diseases, was passed. It is entitled the "Merchant Shipping Act of 1867," and under its provisions Mr. Harry Leach, the well-known able and zealous Medical officer of the *Dreadnought*, has been appointed "Inspector of Lime-juice and Antiscorbutics." By the new Reform Bill for England and Wales, the University of London becomes at last entitled to return a member of Parliament, but it is not yet settled who is to be the candidate supported by the Medical graduates of the University. The Reform Bill for Scotland, which will occupy Parliament next year, allotted one member to the Universities of Edinburgh and St. Andrews conjointly, but contained a most extraordinary clause, practically excluding from the franchise in St. Andrews all Medical graduates who obtained their degrees before January 1, 1863, and by which about 1250, out of 1300 of the graduates, would be "left out in the cold." The gross injustice of this has called into existence a new and vigorous society—"The St. Andrews Medical Graduates' Association, for the promotion of the interests of the Medical graduates, for the securing to them the franchise of their University, for the advancement of scientific Medicine, and for the cultivation of social intercourse and good fellowship." The Association held its first session early this month, with a degree of success that augurs well for its power in promoting the two latter objects; and we believe, also, it cannot fail in securing the franchise. The objection that the Medical degree of St. Andrews can be obtained without residence cannot stand for a moment in face of the fact that the franchise is given to graduates of the University of London, and the character of the degree requires no defence from us. We will, however, mention two facts in illustration of it. In 1855 the official returns of the University showed that the rejections were one in four, a higher proportion than that shown by any other examining body except the University of London, and it is to be observed that nearly all the rejected candidates were already legally qualified Practitioners. The other fact is, that in London itself thirty-seven graduates of St. Andrews hold appointments in the Schools of Medicine, the Hospitals, and the larger Infirmaries; while elsewhere they are found connected with Medical Schools, Hospitals, and County Asylums in some fifty places.

Three other new Medical societies have been formed during the year, each containing probabilities and potentialities of great usefulness. The objects for which each has been instituted, and the ground it proposes to occupy, are sufficiently marked by their respective titles: "The Medical Teachers' Association," "The Harveian Association for the Prevention of Contagious (enthetic) Diseases," and last and youngest, though anything but least important, "The Clinical Society."

It is not clearly apparent yet what is to be the policy of the Medical Teachers' Association—whether conservative-liberal, liberal-conservative, or radical. Is its object protection of the "vested interests" of the schools, with moderate reform; or does it hope to effect a thorough and radical change in the system of Medical education, like that small body of able and eminent public school teachers who, "scorning the system that has made them strong," desire to revolutionise public school education in England? Anyhow, we welcome the Association as a sign of activity, and may fairly look upon it as, in some degree at any rate, an outcome of the various leaders and papers we have published during the last two years exposing the many and grave faults, narrownesses, and restrictions which beset Medical education at present.

The General Medical Council met on May 29, sat for ten days, and, with a great amount of debating and some—clamour we had nearly said, but, at any rate, some not at all dignified or orderly discussion, achieved some really important work. We published at the time full reports of the proceedings of the Council and the debates, and we will only remark now that the most valuable result of the session was a formal and authoritative declaration that no candidate ought to be able to obtain a qualification to practise without having passed an examination in all branches of Professional knowledge—a declaration which sounds like a very self-evident and superfluous truism, but which was greatly needed, and has already brought forth good fruit. The new edition of the British Pharmacopœia was formally published, and has been received with a general chorus of approbation and satisfaction. It is an admirable work, and worthy of its national title and status.

The British Medical Association held its annual meeting, a brilliant and highly successful one, in Dublin. The meeting of the British Association for the Advancement of Science was held this year at Dundee, under the presidency of the Duke of Buccleugh. It was far inferior to some of the preceding meetings both in the value and interest of its work.

The Royal College of Physicians cannot be said to have made any progress in popularity, or in liberality of management. It persists in conducting its Fellowship elections in such a way as to cause almost universal dissatisfaction and discontent. It is "highly distinguished" for its powers of passive resistance, and is almost as ready with its *non possumus*, to all suggestions of reform, as the Papal government itself. It has even made, or threatened, a retrograde movement in the educational requirements from students seeking its "licence to practise."

The College has, however, completed this year two valuable and very arduous tasks, the Leprosy Reports, and a new nomenclature of diseases. Both works do very great credit to the talent, energy, and disinterested labours of the committees who have, without fee or reward, devoted to them their time and skill. The new nomenclature of diseases will, we believe, be accepted by the English, Scottish, and Irish Registrar Generals, who, indeed, have co-operated in the work; and it is to be hoped that all public bodies—the Army and Navy at home and in the colonies, and all hospitals, &c.—will adopt it. With the object of furthering the possibility of its acceptance by other nations, the College has translated it into Latin, French, German, and Italian.

The College of Surgeons has made some marked improvements in the extent and management of its examinations, and has also passed resolutions for carrying into effect, after a certain date, the declaration of the General Medical Council, and providing that no one shall receive the diploma of the College till he has passed an examination in all the branches of Professional knowledge. The elections into the Council of the College were guided by the same spirit that has ruled them for the last few years, and the members who had retired by rotation were all replaced by new men.

As the Society of Apothecaries, to its lasting honour, led the way in the effort to improve the education and status of the general body of the Profession, so it has naturally continued to work on in the same spirit, and its examinations bid fair to become models of efficiency and completeness. The Court of Examiners have passed a resolution refusing to receive from candidates for their licence certificates of private instruction, in place of attendance on the public lectures and courses of the Schools. We trust that this Court will have the full and unswerving support of the Master and Court of Assistants of the Society in their efforts thus to prevent women from invading the ranks of the Profession of Medicine. This is to be earnestly desired for the sake of woman herself, leaving out of sight all other considerations, for it cannot but be that the requisite education for, and the practice of, our Profession would prove most

injurious to her character and nature, and unsuited to her physical and psychical qualities and endowments.

Some steps have been made towards satisfying the just complaints and requirements of the Army and Navy Medical Services, and we believe that we can say that as a consequence the services have in a slight degree recovered their lost popularity. Not, indeed, and deservedly not, to any great extent; but the concessions made have been quite successful enough to prove to the authorities how easy it would still be, notwithstanding all the past, to win back again, by acting with justice, true liberality, and a little generosity, the confidence of the Profession. Dr. Logan has succeeded Sir James Gibson in the office of Director-General of the Medical Department of the Army. He is a popular and highly esteemed officer, and his appointment caused general satisfaction, giving rise to hopes of a more independent, impartial, and vigorous direction of the department for the future.

A very marvellous scheme for recruiting the Naval Medical Service by a system of bounties was at one time hatching at the Admiralty; but the ridicule excited by it was so great that the egg was addled, and the too-clever authorities were laughed back into some degree of practical common sense.

The honours of the most honourable Order of the Bath, the K.C.B. and the C.B., have been distributed, though with no great degree of liberality, among the officers of the two services.

Dr. David Deas, C.B., Inspector-General of Hospitals and Fleets, has been promoted to be a member of the second class, or Knights Commanders of the Order. Inspector-Generals Arthur Anderson, M.D., John Davidson, M.D., R.N.; Deputy Inspector-Generals W. R. E. Stewart, M.D., R.N., H. J. Domville, M.D., R. N., W. Rutherford, M.D., and T. Longmore; Staff-Surgeon James Jenkins, M.D., R.N., Surgeon-Major John Bowhill, M.D., Bengal Army, and Staff-Surgeon Major T. E. White, M.D., have been made Companions of the same Order. It is especially worthy of note that Staff-Surgeon J. Jenkins, R.N., is the first of his rank who has received the C.B. We have had the pleasure also of recording that Dr. M. Stovel, late principal Inspector-General, Bombay Army, and Inspector-General Hare, Bengal Establishment, have been made Companions of the Order of the Star of India; and we are happy in being able to congratulate Assistant-Surgeon Campbell Millis Douglas, M.D., 2nd Battalion, 24th Regiment, on having been decorated with the Victoria Cross. It will be remembered that Dr. Douglas, with four privates of the regiment, who have also been decorated, saved seventeen officers and men from off the island of Little Andaman, by manning and working a boat during three trips through a most dangerous surf, and thus, "at the risk of their lives," rescuing their comrades "from what otherwise must have been a fearful risk, if not a certainty of death." We heartily congratulate all these officers on their well-merited honours, and apologise if we have unwittingly omitted any others who have been decorated. We would not willingly make the list shorter than it really is by a single name.

Lord Derby and the Admiralty have not succeeded in meeting satisfactorily the request of the Seamen's Hospital Society for the use of a vacant portion of Greenwich Hospital. The Society asked for Queen Anne's Quarter, and the Government offered them Queen Mary's, and Medical men, whose eminence and independent position placed them above all suspicion of partiality, reported in favour of the Quarter offered by Government. But the Society clung to their first love, and decided at last that a much better Hospital could be built, on a suitable site, than either Quarter could be made into at even a very heavy expense. And there we believe the matter still rests, though there has been some rumour of the Society being offered the Infirmary with the plot of ground to the river walk.

The sessions of the various Medical Societies of the metropolis were stirring, busy, and profitable. One of the youngest and most prosperous of these bodies, the Obstetrical Society, felt compelled to institute an inquiry into the Professional conduct of one of its number, and, after most careful and conscientious consideration, and a very lengthy and animated debate, a resolution was passed erasing his name from the Society's list of Fellows. This proceeding, happily as rarely called for as it is painful, met with general approval as a right and just vindication of the honour and purity of the Profession.

The Pathological Society is so prosperous and popular that there is some danger of its becoming unwieldy. It suffers seriously from an *embarras de richesses*. The crowded attendance makes it very difficult to circulate the specimens with anything like regularity and order; and the proceedings are so ruled by an imaginary necessity for getting through the list, no matter how lengthy, each evening, that any attempt to illustrate specimens by, or to use them to illustrate, other cases—almost anything, in fact, beyond the barest histological descriptions—excites impatience. This is, no doubt, one, at least, of the *raisons d'être* of the new Society, the Clinical; for, though the Pathological was always intended to devote itself primarily and principally to Morbid Anatomy, we do not think everything else was meant to be utterly excluded, and now even discussion is almost repressed, for specimens succeed each other at such a rate that not half a dozen Fellows can examine No. 1 before No. 2 is also presented. If some change is not made, the Society will run great risk of death, or at least paralysis, from plethora.

An unusual number of changes have taken place in the staffs of the metropolitan Hospitals and schools, caused by deaths, resignations, and new appointments, all of which have been duly recorded in our pages. New departments have also been opened in many of the schools, and the best possible means has been thereby adopted for legitimately recognising that extent of the classification of diseases which has of late found favour in practice, and of opposing that tendency to the multiplication of special Hospitals which was threatening to become a serious evil. Thus special departments of Ophthalmic Surgery, Aural Surgery, and Diseases of the Skin have been formed at St. Bartholomew's, St. George's, the London, and St. Mary's Hospitals, in addition to those in which such departments already existed. In some of these schools, Orthopædic Surgery is also now specially taught. Aided by the removal of Tattersall's, and by the liberality of the Marquis of Westminster, the authorities at St. George's Hospital are making considerable and greatly needed additions to the Hospital and School buildings. The new Hospital of St. Thomas has been commenced, and it is said that Charing-cross Hospital is to be greatly enlarged or rebuilt. We are very glad to note also that the committee of the Great Northern Hospital have lately purchased property that will enable them to increase considerably the number of beds, and to enlarge the out-patient department of that institution. It is a very useful and valuable charity, supplying a greatly felt want of our northern districts, and we heartily wish it continued prosperity and growth.

One baronetcy was conferred on the Profession during the year, the veteran Surgeon William Lawrence having accepted that honour. He did not enjoy it long, however, for only three months afterwards his death, at the ripe old age of 84, deprived the Profession of one of its most distinguished and most widely celebrated ornaments.

Her Majesty has gracefully acknowledged the eminent services rendered to the late King of the Belgians by Mr. Henry Thompson by conferring the honour of knighthood on that distinguished Surgeon. Sir William Fergusson succeeded Sir William Lawrence as Sergeant-Surgeon to her Majesty; and the appointment of Sergeant-Surgeon Extraordinary has been revived, and bestowed on Mr. Paget, in recognition, no doubt, of the skill and attention which, to the great joy of the nation, have restored H.R.H. the Princess of Wales to

her present most gratifying state of health and strength. Messrs. Hilton and Prescott Hewett have been gazetted Surgeons Extraordinary to the Queen. These appointments have been most judiciously bestowed, and been greeted with great approbation and satisfaction by the Profession at large. Several members of the Profession have had the gratification of receiving testimonials, of a more or less public character, in recognition of valuable and self-denying services. Among them Mr. C. E. Smith, Surgeon of the whaler *Diana*, must be named as worthy of special recognition. The honours won by our brethren of the sister services have already been alluded to.

Turning next, and not unnaturally, to the names of those who have gone down in the fight, what a sadly long list we find! what wealth of talent and virtue has death "borne out of use on earth"! The sagacity and rich experience of honoured old age, the vigour, ripened judgment, and knowledge of mid life, the ardour, talent, and industry of youth, lost for all time from the scene of their labours—instances of each and all these might, alas! be quoted in sad abundance. Dr. Brinton was taken from among us at the age of 43, as he was rapidly achieving marked pre-eminence among London Physicians; Dr. Victor Bazire, as he was becoming known and beloved for high qualities of head and heart, at the early age of 32; and we have had to mourn, also, the loss of still younger men, full of talent and promise, as Dr. G. J. Stillwell and Dr. E. Ringrose. Drs. G. A. Martin, Sutherland, Ranking, and Banon, Messrs. John Goodsir, Obré, Adams (of Lanark), and others were struck down later in their day, but still in the prime of life; while others, as Messrs. Hewson, R. H. A. Hunter, J. W. Wilton, Propert, and Lavies, and Drs. Marsden and James Black, had attained nearly or quite to ripe old age. The death of Sir William Lawrence we have before mentioned. We have had also to regret the loss of many valuable officers, as Drs. Duirs, Richardson, and Dunlop, and of private Practitioners, as Drs. Simpson and Kelly, by yellow fever. And science has had to mourn for such men as Faraday, Dr. Daubeny, and Mr. R. Warington. While noting thus sadly our own sorrows, we cannot fail also to mark that the whole Profession has joined in deploring the loss of such chiefs of Medical science and art as Trousseau, Velpeau, Civiale, Boudin, Rayer, and Flourens.

We have said that the Medical year has not been distinguished by any great discovery, or by any single marked advance in science, but we are far from thinking it has been a year of languid or unfruitful life. On the contrary, it has been a very busy and stirring one. Our congresses and conferences have not merely been suggested and talked of, but have met and talked, bringing into direct intercourse and collision learned and active minds of all countries. By the bedside, and in the post-mortem theatre, in the schools and the laboratories, in the study, and in the Medical and scientific societies, observation, thought, speculation, experiment, and research have been incessantly and untiringly active, toiling and striving after knowledge and truth and wisdom. And all this busy and active life and growth of the science and art of Medicine has been faithfully and diligently reflected in the Hospital records, the lectures, the original communications, the reports, leading articles, proceedings of societies, "Notes" from at home and abroad, the "Topics of the Day," and other communications with which the pages of this Journal have been filled from week to week. Among the lectures, we must especially point with gratification to the able and valuable lectures by Dr. Barnes on Obstetric Operations; the highly instructive, original, and important lectures on Experimental and Practical Medicine by Dr. Richardson, especially to his researches on anæsthetics, and to his valuable and most promising discovery of a new anæsthetic, the "bichloride of methylene;" to the lectures of Mr Soelberg Wells on cataract; of Dr. Burdon Sanderson on the Sphygmograph; of Mr. John Wood on Rhinoplasty; of Dr. G. Buchanan on Operative Surgery; of Dr. Clifford Allbutt on the Prunus Virginiana; Dr. Charcot on the Disorders and Diseases of Old Age; Professor Béhier on Cerebral Pathology; Professor Vulpian on the Physiology of the Nervous System; and the lectures of Dr. Lionel Beale.

Among "Original Communications," we have been enabled to give our readers articles of great value and importance, by many of the most active and eminent workers and thinkers in the Profession. Thus, as examples, we may mention the papers on the "Structure and Arrangement of the Nervous System," and on "Microscopical Research in Cholera," by Dr. L. Beale; on "Cholera," by the Rev. Dr. Haughton, Dr. George Johnson, Dr. Moxon, Dr. Leith Adams, Dr. Mackenzie Bacon, Mr. L. S. Little, and Dr. J. Macpherson; on Ovariotomy, by Mr. Spencer Wells; on Inflammations, by Mr. J. H. James; "Surgical Inquiries," by Mr. Furneaux Jordan; Nyctalopia, by Dr. Laycock; Acupressure, by Mr. Lawson Tait; Nightmare of Children, by Dr. Sydney Ringer; on Rabbits and Belladonna, by Dr. W. Ogle; on Hay Asthma, by Dr. Pirrie; Cases of Disease of the Nervous System, by Dr. J. W. Ogle; the First Lines of Pathological Practice of Surgery, by Mr. Gant; and the curious and interesting Notes on the History of Syphilis, by Mr. G. Gaskoin; besides papers from Dr. A. Leared, Dr. G. Corfe, Mr. Buxton Shillitoe, Mr. A. Bruce, Mr. Haynes Walton, Dr. Balthazar Foster, and many other writers.

Besides the usual Reports of Hospital Practice, we have published special reports, written for our columns by careful and competent observers, on "The Amputations of the Thigh and Leg in the London Hospitals during 1866," on "Cottage Hospitals," and on "The Use of Carbolic Acid in the Hospitals of London." This department of the journal has been especially enriched by the essays and notes of Dr. Hughlings Jackson on "Diseases of the Nervous System," and Dr. J. Fayrer's (of Calcutta) "Contributions to Surgery."

In our Editorial Articles we have noticed and commented on all events especially interesting or affecting the Profession, and on such questions of policy and ethics as have come into prominence, and we have further given articles notating for our readers all the changes, clashings of opinion, and progress of knowledge concerning the various problems in physiology, pathology, and other branches of scientific Medicine, with which thought and observation have been most busy at home and abroad. Of this part of our provided food we will specially note the papers on the Physiology of Respiration—the Source of Muscular Power—Inoculation of Tubercle and of Phthisical Sputa—Animal Vaccination—Positive Therapeutics—Aberrations of Sexual Instinct—Cinchona Alkaloids—on Pauperism and Preventible Disease, and on Rain and Disease—the Notes on Medical Education, and the Further Notes on Wine.

The reports we gave of the Paris Exhibition and of the Congresses excited, we believe, great interest.

Altogether, our volumes for the year are, we venture to think, fully worthy of the high reputation of the journal; and we have the happiness of feeling that our readers have been satisfied with our labours for the advancement, the interests, and the honour of the Profession. To the many valued friends who have worked with us, to all our co-labourers and contributors, we offer our warmest thanks; and to them and all our readers or supporters we heartily wish a happy and prosperous new year.

THE PRISONS OF INDIA.

Dr. Frederic John Mouat, Inspector-General of Gaols in the lower provinces of Bengal, is undoubtedly "the right man in the right place," both for the Government of India and for those of us at home who take an interest in the somewhat abstruse but most important science of vital statistics. Full of

the conviction that out of the experience furnished by the prison population coming annually under his inspection valuable pathological, hygienic, and statistical data are obtainable which will help us to a better knowledge how to economise human life in India, Dr. Mouat presents us with a report embracing the widest range of information which it is in his power to supply; in fact, so zealous is he that we find an expression of regret because, during his absence, certain sanitary functions, which were proposed to be attached to his ordinary duties, were declined by the officer acting as his *locum tenens*, and he would like the proposal to be revived, so that he might have an opportunity of expressing his own sentiments thereon.

The large section of the report devoted to vital statistics opens with a passage of arms between Dr. Mouat and the Bengal Sanitary Commission, in which the Inspector-General, roused by a remark of the Commission on the alleged defectiveness of the prison statistics of sickness and mortality, retorts that "the only reliable data in existence of the sickness and mortality of any portion of the civil population of India are those contained in the prison reports," which, in reference to the matter concerned, "are of greater accuracy and of more scientific importance than the statements of the Sanitary Commission supplemented by the tables appended to them." The weak point in the armour of the Commission is the unreliable character of their data, both as to population and death-returns, and this Dr. Mouat is clearly entitled to notice. It seems that the subject of prison death-rates was referred by the home authorities to Dr. Farr for his decision as to the proper mode in which the calculations should be made, and that gentleman, having drawn up a uniform method for adoption, Dr. Mouat has prepared his tables in conformity therewith, noting by the way that "with two exceptions every head of information considered necessary by Dr. Farr had already been supplied in a more or less complete form by my reports for some years past."

Dr. Mouat avows his preference for Dr. Farr's classification of diseases over the system adopted by the Bengal Sanitary Commission. And, as a parting shot at the Commission, he remarks that the Professional supervision of the prisons has not been entrusted to him, and that a system of returns recommended by him twelve years ago for collecting accurate information upon all matters connected with the health, diseases, and mortality of the prisoners in gaols under his inspection, was objected to by the Medical Department.

The statistics before us show that the number who passed through the gaols in 1866 amounted to 114,870 prisoners; the mean prison population during the year 1866 was 22,151, being 3300 in excess of the numbers for the previous year; the average sickness-rate, on the mean residents, amounted to ·037, there being 3·7 per cent of the prisoners constantly sick; the death-rate was 10·59 per cent., nearly double the rate for 1865. Of the numbers constantly sick, fever was the cause of the largest proportion (12,066 cases treated); but cholera, diarrhœa, and dysentery were the most fatal diseases—in fact, the death-rate from cholera in 1866 was in excess of the death-rate from the same cause in any year since 1860. The greatest amount of sickness in the year was among the prisoners admitted into gaol during the year, a large proportion of whom were either received with the seeds of disease already contracted, or in so debilitated a state of health as to render them easy victims to disease in gaol; more than half the mortality of the year occurred among prisoners who had been in prison less than four months, and who were reduced by famine and distress prior to admission. The great drought in 1865 created a famine, and the pressure of starvation led to a subsequent large increase of admissions to the prisons; thence resulted overcrowding and consequent disease. If these exceptional circumstances had not occurred, Dr. Mouat states that the general sanitary condition of the prisons during the year would not have contrasted unfavourably with the most healthy year's record. The greatest amount of sickness occurred during the winter months, the rainy months ranked next in the intensity of the prevalence of disease, and the summer months were the least unhealthy. The mortality rate to mean population was highest in the rainy months and lowest in the summer months, and both sickness and deaths were greatest during the months in which the distress from famine was most severely felt. The influence which incarceration in districts, other than those to which the prisoners belong, exercises on their health may be, to some extent, measured by the fact that the death-rate of prisoners belonging to the district in which they were confined was 10·2 per cent., against a mortality of 12 per cent. among prisoners removed to other localities

We can only briefly enumerate, without amplification, a few of the many features of Dr. Mouat's statistics. Suffice it to say that the death-rate under various conditions, each of them interesting in its way, indicates that, as regards the prior occupation of prisoners, imprisonment was most fatal to the agricultural class; that the test of weight proves an ample dietary for the majority of prisoners, while, for some, it needs modification; that the aged died in a higher proportion than the young from all causes as well as from cholera; that the mortality was highest among dacoits (or gang robbers), and thieves, who belong to essentially dissipated classes, and on whom confinement tells with great severity; that the death-rate of males was three per cent. greater than among females; that those sentenced to short terms of imprisonment up to one year die fastest; and that those under trial suffer a lamentable loss of life which is deserving of serious consideration in the direction of hastening their trial and thus putting an end to the suspense and anxiety of mind which contribute to their high mortality.

The dry-earth conservancy appears to be in general operation throughout the gaols, and with satisfactory results wherever it is effectively worked.

We have finally to notice a suggestion as to which we entirely agree with Dr. Mouat that, if properly carried out, it would prove an invaluable aid to the study of Indian disease in all its bearings. The fragmentary, diffuse, and ill-digested records of sanitary and Medical science in India present an almost insuperable obstacle to any comprehensive analysis of facts, such as are essential to accurate deduction on a basis applicable to the whole country. Dr. Mouat, therefore, recommends the preparation of a Medical *aide-mémoire* for all India, after the plan of the annual report of the Army Medical Department, but with the addition of coloured charts exhibiting for each year, the intensity or otherwise of the endemic or epidemic diseases of different localities; and for this purpose "the reports of the Sanitary Commissions of the three Presidencies, with the returns of the prison department, and the dispensary returns sent to the Medical Department, if they are prepared with care and attention, ought to afford the materials necessary for the compilation of a work of the greatest scientific and Professional value."

That carefully prepared Medical *aide-mémoires* of India would show, as Dr. Mouat believes, that the causes of the most destructive endemic and epidemic diseases are few, simple, and easily removable by timely remedies on a sufficient scale, is quite consistent with much that is known and admitted in Medical science; but whether he is justified in assuming that they will establish the non-contagionist view of cholera which he holds so strongly, is another matter.

THE WEEK.

TOPICS OF THE DAY.

The Poor-law Board have recently taken a step which is undoubtedly a good one. They have established a new department to which may be referred the Medical questions which are constantly occurring in the administration of Poor-law relief, and for the general despatch of the Medical business of the Board. At the head of this department is placed

Dr. Edward Smith, of whose labours and acquirements as a practical physiologist the Profession are well aware, and who has already won public confidence in the performance of his duties as a Poor-law Inspector. It is the custom in some quarters to throw much of the blame of any scandals which may be brought to light in Poor-law administration upon the central authority. We believe that this has often been done most unfairly. The powers over the local boards possessed by the Poor-law Board are, as we have heretofore shown, in some respects excessively limited. Since the outcry which followed the cases at St. Giles's Workhouse, and in the Holborn district, the Government have selected two Physicians of the highest distinction in their Profession as inspectors of important districts—Dr. Markham, who has the entire charge of the metropolis, and Dr. Edward Smith, who is now transferred to a position in which he will be able to exert an influence over the whole Medical relief of the pauper population. We think that neither the public nor the Profession could require more convincing proof of the good faith of the Poor-law Board, or of the determination of Government to make the Medical department of Poor-law administration as perfect as a system of relief, itself supported in a great measnre by taxes obtained from the poor population, can in justice be.

Mr. Joseph John Henley, who up to the present time has been acting as a commissioner for inquiring into the condition of agricultural gangs, is to succeed to Dr. Smith's inspectorship.

A decision has recently been given in the Court of Chancery, by the Lords Justices of Appeal, reversing the decision of the Master of the Rolls as to the construction to be put on the words "les hospices de Paris et de Londres" in the will of Lord Henry Seymour. It will be remembered that Lord Henry Seymour left the residue of his large property to certain institutions, which he designated "les hospices de Paris et de Londres." The result of using this somewhat vague phrase has simply been to divert a large portion of his property into the coffers of the lawyers. The Master of the Rolls came to the very extraordinary conclusion that from the "hospices" of London all Hospitals for the Medical and Surgical treatment of disease were to be excluded. Against this, nine Hospitals—the London, St. Mary's, St. George's, the Middlesex, the Royal Free, St. Thomas's, St. Bartholomew's, Guy's, and the Brompton Consumption Hospitals—very properly appealed. Lord Justice Cairns's judgment, which was fully confirmed by Lord Justice Rolt's, was in accordance with common sense, and, we may add, justice. He thus concluded his summing up:—

"Differing, as I am compelled to do, from the opinion of the Master of the Rolls, I have felt it right, from the great respect which in all cases, and especially on a question like the present, I entertain for his judgment, to express in detail the reasons which have led me to a contrary conclusion. I think that the certificate must be varied, and must stand as follows:—'The institutions which are meant by the gift "aux hospices de Londres" are all institutions in London which receive by way of charity within their walls, and provide for, persons who by reason of age, or of curable or incurable mental or bodily ailments, stand in need of care, treatment, or charitable assistance.' And with this variation the case must go back to Chambers to ascertain what particular institutions answer this description."

We call the attention of the various Hospitals to this judgment, which we suppose is final, in order that their claims may be represented. But we fear that the diminished property will yield but a small sum to each.

We are glad to see that the services of Mr. E. C. Shoppee, the House-Surgeon of University College, who was in charge of the young guardsman who was murdered near Holborn, have had special recognition from the officers of the regiment—the 2nd Life Guards—to which the poor lad belonged. Mr. Shoppee has received a silver inkstand with a suitable inscription from the colonel and officers of the regiment. Such a testimonial reflects credit both on the donors and the recipient.

The execution of Baker, the Alton murderer, may perhaps have left a disagreeable suspicion in some minds that a non-responsible person has suffered the last penalty of the law. We confess that we should have willingly seen a commission of inquiry authorised to examine into his mental condition. But much of the uneasy feeling created by the suspicion that Baker was irresponsible when he committed the act is dispelled by the culprit's own confession on the scaffold—that he was led to do it through drinking. A man is certainly responsible for crimes which are immediately the result of habitual indulgence in evil courses, even though those courses may have left him no longer master of himself. We are here, of course, expressing no opinion as to the propriety of capital punishment in such a case, but are simply commenting on the question of responsibility.

THE MEDICAL SCHOOLS OF BIRMINGHAM.

We are informed that the Council of Queen's College and the authorities of the Sydenham School of Medicine have, after lengthy negotiations, decided upon an amalgamation. We may, therefore, venture to predict for Queen's College a brilliant career in future.

THE POSITION OF ARMY MEDICAL OFFICERS.

An "Army Medical Officer" has addressed to the editor of the *Army and Navy Gazette* a letter in which he states that he has frequently noticed in that journal a "degree of bitterness" whenever the Medical Department of the Army is referred to, and attributes this either to ignorance or the desire to "curry favour" with combatant officers. He states that Medical officers are not satisfied by the recent modifications of the warrant, and that gentlemen placed in their position could scarcely be so. He complains that the Medical officer is still a "nonentity at the mess," and "a laughing-stock on parade." The editor of the *Army and Navy Gazette* has replied to these complaints in a manner of which we thoroughly approve. He does not consider them to represent the feelings of the majority of the Medical service, but rather looks upon them as the expressions of the dissatisfied minority, who, as is the habit of grumblers in general, affect to be the spokesmen of the people, and who have retreated to a position from which it will be impossible to dislodge them by any reasonable concession, simply because they have taken their ground on sentiment. He asks—Would it be possible to satisfy a body of men all like this gentleman? We certainly think not, and must say that, strongly as we have always advocated the proper demands of Army Surgeons, we cannot sympathise with those which we must consider unreasonable and frivolous. We have confidence in the better sense of the majority of the department, with which, from frequent personal intercourse and from numerous communications addressed to this journal, we have had every opportunity of becoming acquainted. It has not seldom been hinted to us that among Army Medical Officers the loudest claimants of military precedence are those who most frequently forget the courtesy and consideration which they ought to display towards the junior officers of their own department as members of the same liberal Profession. They are sometimes so fond of "coming the senior officer," as it is called, over their juniors, that it is really fortunate for the best interests of the public service that in Professional matters they are in a position to exercise merely the influence of departmental seniority rather than the absolute authority of military command. And we quite agree with the editor of the *Army and Navy Gazette* that if it be true that any Medical officer is "a nonentity at mess" and "a laughing-stock on parade," it must be from personal causes quite beyond the power of warrants or regulations to remove.

IMPORTANT TO TEACHERS AND STUDENTS.

THE metropolitan and provincial teachers at Medical schools and their pupils will be glad to know that the authorities at the Royal College of Surgeons contemplate saving all parties much trouble and inconvenience in the matter of filling up certificates of attendance on Hospital practice and lectures; and with this intention have caused the following circular to be sent to all recognised Hospitals and lecturers in the United Kingdom:—

"Royal College of Surgeons of England, London, W.C.,
December 20, 1867.

"Sir,—The attention of the President of this College has been called to the great inconvenience occasioned both to teachers and students by the multiplicity of signatures now required by this College to be affixed to the certificates of attendance on lectures, Hospital practice, etc., of candidates for its diplomas; and he is consequently desirous of bringing the subject before the Court of Examiners, in order, if possible, to simplify the certificates without in any way vitiating their authenticity and reliable character.

"With this view, I am directed to request that you will bring this matter before the Committee of the Medical School of your Hospital, and that you will acquaint me, for the information of the President, whether there is any officer attached to your school to whom the duty of signing all the certificates required for the college diplomas might be implicitly confided, and whether the Committee see any objection to the said certificates being signed solely by this one officer.

"You will be aware that in some Medical schools it is already the practice to require that the accuracy of each certificate should be guaranteed, before it is signed by the teacher, by the initials or signature of the dean, secretary, or other regularly appointed officer of the Medical school; and that it is on the faith of those initials or signature that the certificate is signed by the teacher—a practice which would lead to the conclusion that in those schools the signatures of teachers cannot be regarded otherwise than unnecessary.

"I am at the same time to request that you will furnish me with the name and position of the officer to whom the Committee of your school may be of opinion that the highly trustworthy duty of granting certificates might be properly delegated. "I am, Sir, your obedient servant,

"EDWARD TRIMMER, Secretary.

"To the Dean or Secretary of the Medical school of——"

The subject of registration of students, it is stated, is also receiving the attention of the Council, and it is not improbable that the present system of registration at the College, which has of late caused so much dissatisfaction to teachers and students, will be abolished. The registration instituted by the General Council must in time supersede all special registrations by particular examining bodies.

FROM ABROAD.—THE REGULATION OF PROSTITUTION IN FRANCE.

THERE is a great disposition at present to make some effort to limit the ravages which unrestricted prostitution gives rise to; and certainly no aim could be more laudable. Still, its pursuit should be conducted with tact and judgment, or failure will certainly be the result. Of course the difficulties in putting any preventive means into force are especially great in this country; but supposing that all these could be smoothed away, the course to be pursued is by no means so clear as some imagine. We may have pointed out to us the practice of Continental countries, where restriction, in different degrees of severity, has long prevailed; but not only do we find in such countries syphilis prevailing to the same extent and in the same severity as in our own, but observers therein are not satisfied with the effects of the regulations put into force, which, indeed, sometimes are found to have results very different from those intended. The last account we have met with of such result comes from France, and from so able and experienced a pen as that of M. Diday, of Lyons, while commenting upon a recent essay on the prostitution of Paris, published by M. Lecour in the *Archives Générales* for the present month. According to M. Lecour, that prostitution is now undergoing in Paris a complete transformation, is proved by the following facts:—1. There is a diminution of the inscriptions for the control of prostitutes. 2. A diminution in the number of *maisons de tolérance*. 3. A diminution in the number of girls in such houses. 4. A *relative* increase of the number of uninspected women or *insoumises*. 5. A large proportion of these *insoumises* are the subjects of syphilis or other contagious affections. All these results are intradependent, and they all demonstrate that clandestine prostitution is on the increase, and that it is becoming more and more dangerous to public health. Has the action of the police become relaxed? On the contrary, it was never more active, as is shown by the increasing number of *insoumises* and *filles publiques* that are arrested, and of the improved sanitary condition of the girls who are submitted to inspection:—

"The mischief is social, and does not depend upon police regulations, which cannot reach and destroy it. The number of *maisons de tolérance* is diminishing, and will go on decreasing. These houses would have been closed before this, were it not for the customers they find among travellers, soldiers, and artisans. The number of *insoumises* is constantly on the increase, constituting a new physiognomy of prostitution, the cause of which is to be sought for in the indulgence—I was about to say in the sympathy—which for a certain time past is everywhere shown in books and on the stage for every form of paid debauchery. We have no longer to do with the *filles publiques* and *insoumises* of heretofore, ashamed of their position and pursuing their sad calling under the hands of the police, whose severity towards them was encouraged. The *insoumises* of our times no longer excite reprobation, and seem to have established their status (*droit de cité*). The police are often unjustly reproached in towns for too much laxity or too great rigour in respect to these women, and the difficulties, in all points of view, which attend their arrest are not sufficiently borne in mind. We must not forget that we have to do with women walking or standing in promenades and public places where men are in the great majority, and that interventions are constantly taking place in their favour. Moreover, with eccentricities in manner and dress which are common at the present day to women of different social conditions, what errors might be committed were not repression put into force with excessive reserve!"

M. Diday fully endorses the above opinions of M. Lecour, and observes that the true danger to society arises from the non-inscribed prostitutes or *insoumises*. Of this he is convinced by the fact that the majority of his patients inform him that they have contracted their malady elsewhere than in the *maisons* or from *filles inscrites*. Again, in the visitations of inscribed prostitutes at which he has been present at Lyons and elsewhere, it has hardly been in one out of fifty that the most trifling sores or discharges have been met with even by the most experienced examiners. The police administration is well aware of this, and, notwithstanding the difficulties contingent upon making arrests upon mere appearances, yet 2000 clandestine prostitutes are annually arrested in Paris. M. Diday is, however, of opinion that the police surveillance would be more effectual if less severe. He recommends that it should be intimated to every suspected woman that she must supply to the police a monthly certificate of her sanitary condition, which certificate she may obtain from any Practitioner she chooses. Refusing to provide this, she would become liable to an official visit at her own abode, and, in case of recurrence, to inscription on the list of public prostitutes. This procedure would have the advantage of enlisting the co-operation of the patients and Practitioners, who at present, knowing that arrest would be the consequence, refuse to reveal the names and addresses of the women who have caused the affection. When the only result would be the Medical attendance of which they stand in so much need, their aid would be willingly given.

THE SUFFERERS IN THE CLERKENWELL EXPLOSION.

WE have received from Mr. H. O. Hopkins, the House-Surgeon of the Royal Free Hospital, the following report of the post-mortem examination of Martha Thomson:—

"Found a fracture of the left superior orbital plate of the

frontal bone, also a fracture extending through the left greater wing of the sphenoid, through the squamous portion of the temporal, the posterior inferior angle of the parietal and left side of the occipital bone. There was no depression, but a considerable quantity of blood effused under the dura mater, forming a large-sized clot on the surface of the posterior lobe of the cerebrum, death being caused by compression."

Of the four cases now in the Hospital, all are going on as well as can be expected. The wounds do not show much tendency to heal, and many of them still remain in the suppurative stage, owing to the amount of glass and dirt that was in them. The eyesight of the little boy, Arthur Abbot, is entirely destroyed. The old man, Humphrey Evans, who has been gradually sinking, died on Tuesday night at 9.30.

VULPIAN'S LECTURES ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

Delivered at the Museum of Natural History, Paris.

(Concluded from page 682.)

In the next lecture (the nineteenth) attention is specially directed to the fact that reflex actions are adapted to some special object, and that a decapitated animal will thus perform movements which would *seem* to be the result of volition. The author here introduces a notice of the views of Whytt and Prochaska, and the more recent ones of Legallois and Pflüger, and then gives a series of illustrative experiments of great physiological interest, some of which we shall describe in the briefest possible form. A frog from which the head and anterior part of the vertebral column have been removed, and which is placed in its natural position, is the subject of observation. On extending a hind leg and gently pinching one of the toes, we observe the ordinary result of the retraction of the limb, while the different segments are flexed on one another. This movement, which is repeated on the re-application of the stimulus, is no chance motion. If the collective muscles were thrown into contraction, the result would be forcible extension of the limb, as in the case of poisoning with strychnine, for in the frog the extensors are far more powerful than the flexors. Here, however, only a certain set of muscles contract, which, by their joint action, produce a special result (the withdrawal of the limb), while the others remain more or less inert. If a toe is more strongly pinched, both hind legs are excited to movement, as was previously noticed in relation to the irradiation of excitations in the grey matter; here, however, we may consider it from another point of view. The movement is not inconstant and indefinite, but is always the same under the same conditions. The limb whose toe is pinched no longer becomes flexed as before, but, in association with the other leg, is rapidly extended; but this movement is precisely that which is best suited to drive back the agent of irritation, or to propel the animal forwards out of the reach of that agent. If a newt be divided transversely behind the part at which the fore limbs are given off, and we then pinch the skin on one side of the posterior half of the animal, a lateral movement of curvature is observed, the concavity being on the irritated side, as if the animal were trying to avoid the source of irritation. This is precisely the course which the unmutilated animal would under similar conditions have employed, and if it failed the next expedient would be to attempt to remove the cause of irritation by the agency of one of the hind feet—a phenomenon also observed in the divided animal, after a trial of the former method. The frog employed in the previous experiments, if the skin of one flank were pinched, would have exhibited the same phenomena. M. Vulpian describes various other experiments,(a) all of which similarly show the adaptive character of reflex action to a proposed object—namely, defence against external attacks. All the movements are so well arranged and so natural, that if the mutilation of the animal were not obvious to the eye, it would not be suspected. How are we to explain these remarkable facts? Are we to adopt the view that the spinal cord contains an independent volitional power? Our highest English authority on the physiology of the nervous system, Dr. Carpenter, remarks that "to remove these movements in any case from the category of *automatic* actions would be to assign to the spinal cord a power of consciously selecting and directing them, such as we have every reason for believing to be limited to the higher parts of the cerebro-spinal centres. The very uniformity of the movements in question, or the slight variation in effect which has been observed to follow the application of different stimuli, is itself an indication that they do *not* proceed from any purposive choice, but depend upon the special endowments of those centres of reflex action whence the impulses that call them forth immediately issue to the nerves." (*Op. cit.* p. 529.) M. Vulpian refers to these views of Carpenter; to Pflüger's doctrine that the spinal cord is endowed with some kind of perceptive power; and to the opinions of Schiff, who believes in a true sensibility of the cord, and of Van Deen, who attributes to that organ *sensibility of reflexion*, by which it calls into play the most appropriate movements for removing or avoiding irritating agents; and concludes with the expression of his belief that none of the proposed explanations is altogether satisfactory, and that we must wait patiently for further light on this obscure subject. If, however, we cannot penetrate into the deeper mysteries of these phenomena, the importance of the phenomena themselves is beyond all question. At the risk of being charged with want of novelty, what do these experiments on the decapitated frog and the posterior portion of the newt teach us but that the spinal cord, by appropriate reflex actions, places it in the power of every spot upon the surface of the body to withdraw itself from any causes of irritation? Nor need the seat of the irritating agent be external. In sneezing, coughing, and vomiting, we have reflex actions whose object is to effect the removal of some irritant from various mucous membranes. The movement is still one of defence or conservation. But all reflex actions do not necessarily present precisely the same characters. For instance, the movements of the intestinal canal, the contraction and dilatation of the blood-vessels, and the reflex actions concerned in glandular secretion can hardly be regarded as of a defensive or conservative nature, although they are doubtless essential to the conservation of the well-being of the organism. The movements of a part of the intestine may, as Vulpian remarks, have for their object the removal from the canal of the matters contained in it. The uterine contractions during parturition or (after delivery) if clots are present, or in the far rarer cases of fibrous tumour, are expulsive reflex actions closely associated with such as we can evoke in the frog.

Although in certain minor points Dr. Marshall Hall's theory of the reflex nature of the respiratory movements has been shown to be not quite accurate, it is in its generality accepted by physiologists. M. Vulpian has, however, brought forward the following antagonistic fact against this theory:—A frog from which the lungs have been removed contrives to carry on regular respiratory movements for a considerable time by means of its hyoid apparatus; and the same is the case even when the heart also has been extirpated, and when, consequently, there can be no reflex actions having their source in modifications of the circulation either in the hyoid apparatus or in the medulla oblongata.

After discussing the question as to whether certain movements, or rather classes of movements, originate from distinct centres in the cord, and arriving at the conclusion that this view cannot be accepted, our author, without actually quoting it, proceeds to illustrate Marshall Hall's celebrated apophthegm that "the spinal system never sleeps." In proof of the permanent or almost permanent excitation of the cord, or, more strictly speaking, of the grey matter of that organ, he refers not only to the permanent action of the sphincters, but to other illustrations afforded by the muscular system generally. The muscles are, as a general rule, so arranged in antagonistic groups that in the normal state their action is not apparent. If, however, one of two muscles or muscular groups should become paralysed, the persistent action of the other muscle or muscular group becomes manifested; and this constant muscular action implies a constant activity of the grey matter of the cord or of the medulla oblongata. If we divide the facial nerve of an animal on one side, we produce the same phenomena as those which result from the paralysis of one of the facial nerves in man. These phenomena are too well known to require description; and it is obvious that the paralysis or division of the facial nerve has modified the functional state of the muscles on the injured side, since they no longer offer any resistance to the traction of the muscles on the opposite side. To express this constant functional state of the muscles, M. Vulpian retains the word *tone*, which, as Dr. Carpenter

(a) We have omitted one of the most striking of the experiments—due, we believe, to Pflüger—because it is described in that readily accessible work, Carpenter's "Human Physiology," sixth edition, 1864, p. 529. Dr. Carpenter applies the term "purposiveness" to the quality of reflex action which we are here considering.

remarks in his observations on this subject (*op. cit.* p. 536), is liable to objection, since it may be confounded with their *tonic contraction*, which is a manifestation of the simple contractility of their tissue, and is exhibited by both forms of muscular fibre, and especially by the non-striated. *Muscular tension* is, as is suggested by Dr. Carpenter, a better term than *tone*. Our author here scarcely does justice to the investigations of Marshall Hall and Todd and Bowman on this subject, inasmuch as he gives their results without any reference to their names, an omission of which he is seldom guilty. Dr. Marshall Hall distinctly proved by experiments on decapitated animals (two rabbits and a turtle) that this muscular tension is dependent not upon the influence of the brain, but upon that of the cord; or, in other words, that it is a purely reflex action: while the last-named physiologists showed that a decapitated frog will continue in the sitting position through the influence of the spinal cord; and that immediately this organ is removed, the limbs fall apart. The following may be regarded as supplementary to the last experiment:—"If," says M. Vulpian, "we remove a decapitated frog from the table on which it has been lying and suspend it by one of its anterior limbs, the hind legs hang down and show no tendency to retract. If, however, we replace it on the table, it again assumes its normal position and attitude. It is obvious that it resumes this attitude by reflex action: it is the contact of the table acting on the periphery of the sensitive nerves that gives to the frog the power of thus bringing together its limbs. This influence of reflex action on the collective movements in determining the normal attitude, and even in regulating the locomotion, exists in all animals."

The twentieth lecture, which concludes the subject of reflex action, treats of its variations under certain conditions. The excitability of the spinal cord may undergo either an exaltation or a depression, and consequently the reflex actions which are dependent on that organ will, in one case, be sharply defined, extended, and readily evoked, while in the other they will be torpid, limited, and not easily excited. Physiologists are well aware that many external conditions, as the zoological position of the animal, age, time of year, etc., modify to a considerable degree the excitability of the cord; but their consideration must be omitted, and we shall discuss only such causes as admit of experimental demonstration. (1) Amongst the *causes of exaltation* must be especially noticed transverse sections and partial lesions(b) of the spinal cord, and the influence of certain poisons, especially of strychnine. Various attempts have been made to explain why the decapitation of an animal or the division of the cord should be followed by an exaggeration of the reflex actions, but none of them are altogether satisfactory. In discussing this subject, our author naturally introduces a notice of the remarkable observations of Brown-Séquard, who found that, in certain animals whose cord had been injured two or three weeks previously, attacks of epilepsy might be induced by simply pinching one definite spot on the face,(c) this epilepsy being always persistent, and sometimes becoming hereditary. In his remarks on the action of strychnine on the cord of vertebrate animals, he takes occasion to remark that this energetic poison is apparently innocuous in the invertebrata. When this poison was introduced under the skin of an earthworm, the effects appeared to be purely local, or only to extend to one or two adjacent segments. In the crustacea the poison also almost inert, and in snails he has introduced both into the tissues and into the pulmonary sac as much as a grain and a half of strychnine without inducing any symptoms of poisoning. (2) The *causes of depression* of the reflex actions of the cord are various. The depression may be produced by a very violent or prolonged excitation of the cord, and the convulsions produced by strychnine may lead to this result. It is very readily induced, as Vulpian shows, in the case of a frog by submitting the animal to "a generalised and violent faradisation." He submits the frog to the incessant action of the intermittent current of a battery of which one electrode or pole is placed in the buccal cavity, while the other is brought in contact with the verge of the anus, or is even inserted within it. In the course of a few minutes the animal becomes insensible, appears in a state of collapse, and reflex actions can no longer be excited in it. The neurility of the nervous fibres is much weakened, and the excitability of the cord has disappeared. It is worthy of notice in this experiment that the excitability, which is rapidly restored, increases progressively, and is even exaggerated, for some seconds, before the normal state is restored.

A sharp blow on the cranial region will for a very short time abolish the excitability of the cord. There is a momentary excitation, after which symptoms like those described in the last experiment ensue. Ether, chloroform, and probably a large number of organic substances as yet not used in experiments, also have the power of temporarily abolishing the excitability of the central nervous system in the batrachia.

In this rapid glance at the causes which modify the excitability of the cord we have not as yet noticed the influences of disturbed circulation in that organ. An insufficiency of blood may produce either an exaltation or a depression of the excitability. It frequently happens that when a large quantity of blood is taken from an animal, there is a convulsive stage just before the occurrence of syncope. This experiment gives us a clue to the tendency to convulsions which is often seen in anæmic patients. If there be a sudden and total interruption of the circulation in the cord, there is an entire and almost instantaneous abolition of excitability of that organ. This fact is readily shown by an experiment which is usually attributed to Steno, and has been often repeated. If the aorta of a rabbit be tied in front of the renal arteries, and the wound be at once sewed up, the circulation of the posterior part of the body, including that of the corresponding portion of the cord, is interrupted. The animal assumes its normal attitude and attempts to walk; but in a few seconds the cord loses its properties, and complete paralysis, both of motion and sensation, seizes the posterior part of the animal.(d)

We conclude this abstract of M. Vulpian's elaborate discussion of reflex phenomena with the observation that when the circulation remains unaffected, the reflex excitability of a portion of the cord which is separated from the anterior or superior part may persist almost indefinitely. Longet recognised its presence after three months, while Schiff has detected it after the expiration of more than a year.

(b) On this subject every one who has not already studied it should carefully read a memoir by Dr. W. Budd in the twenty-second volume of the *Transactions of the Medico-Chirurgical Society*.

(c) This part is that which covers the angle of the lower jaw, and extends from thence to the eye, the ear, and nearly to the shoulder. See Brown-Séquard's "Physiology of the Nervous System," p. 179, where he treats of "artificial epilepsy in animals."

(d) A similar but more rapid effect may be induced by the employment of the experiment of Flourens, which consists in the injection of an inert powder into the aorta, and which was described in an earlier part of this review. Steno's experiment is, however, more valuable than that of Flourens in this case, because it allows of a counter-proof.

REVIEWS.

St. Bartholomew's Hospital Reports. Edited by Dr. Edwards and Mr. Callender. Vol. III. London: Longmans. Pp. 406.

We have already shortly alluded to the excellencies of this work, but it is fitting that it should receive a more extensive notice at our hands, both on account of its varied contents and because of the great institution from which it derives its name, as well as the eminence of the contributors to its pages.

It commences with a notice of the late Dr. Jeaffreson, not, perhaps, too laudatory for the friends of the deceased, nor even for his pupils of St. Bartholomew's, but, to our Philistine mind, somewhat overtinged with the colours of friendship; for it must not be forgotten that, however great and good a man Dr. Jeaffreson was, he failed to leave any tangible imprint on his time either for good or evil. He selected his line in life, and however estimable and successful he was—and that he was both we are far from denying—he was never more than a kindhearted and painstaking Physician.

The first article, from the pen of Mr. Savory, contains metal of weight—it deals with the statistics of pyæmia, a subject Mr. Savory has, to a certain extent, made his own. He tabulates the results of 133 cases, a considerable proportion of these being from St. Bartholomew's (registered by Mr. Willett), and then proceeds to draw his conclusions. Mr. Savory is inclined to view pyæmia as allied to the specific fevers. He points specially to the rigors and subsequent sweats as, to a certain extent, proofs of their similarity, and he proceeds further to show that in many cases the so-called irritative or Surgical fever is only an incipient or transient variety of pyæmia. He also holds that pyæmia may be produced previous to the production of pus, and, in fact, rejects the embolic theory of its origin. We cannot entirely agree with Mr. Savory, but we accept his contribution to the literature of the subject with thankfulness. He is a man

whose words have weight, and we are sure that he has not arrived at his conclusions hastily and without careful investigation.

Next comes a paper, by Dr. Head, of Carlisle, on obstructions of the bowels. When from intussusception, he recommends the injection of a large quantity of oil, to be forcibly retained for some time. In some cases he uses mercury. The paper on convulsions in children, which follows, is from the pen of Dr. Gee. It is the result of much study, and is intended to show that the association of rickets with convulsions, as with laryngismus stridulus (Elsässer), is extremely common, insomuch that Dr. Gee is inclined to refer both to one common cause. Mr. Morrant Baker then contributes a thoughtful paper on the relation of life to other forces, an abstract of which will be found in his new edition of Kirkes's Physiology. Mr. Moore, of Middlesex Hospital, sends an interesting account of a case of multiple cancer, showing how the disease may be supposed to spread—viz., by the lymphatics and by impregnation of the surrounding tissues. In the instance related, there was a great deal of milky material, which enabled the morbid matter to be detected even where it was no easy task to show the malignant constituents of the original mammary tumour.

The article by Mr. Thomas Smith on the examination of patients suffering from deafness, is one which we would most heartily recommend to the hard-working general Practitioner who has not time to study the large works on diseases of the ear, nor the means of procuring the great stock of instruments required for aural practice. Its instructions are plain, simple, and eminently practical. Dr. Andrew takes up the subject of disease of the mitral valve, and handles that well-worn theme so as to show that it has not been yet exhausted. The article is excellent. Mr. W. Church gives notes of the cholera cases treated in St. Bartholomew's Hospital in 1864, which will prove useful, especially as the post-mortem examinations of nineteen individuals are carefully recorded. Mr. Hensley makes some remarks on Dr. Roberts's mode of estimating sugar, and points out certain slight corrections to be made.

Dr. Dyce Duckworth's paper on the passage of substances through the kidneys in health and disease is of great value. Certain of his researches as to oxaluria have already appeared in our columns, but his observations on a variety of other odorous and colouring matters, both in the healthy and diseased stages, are here given. The result is that the statements made as to the non-elimination of certain substances by patients labouring under albuminuria require revision. Mr. Augustin Prichard, of Bristol, publishes a most interesting and satisfactory case of tying the femoral and external iliac, in opposite limbs, in the same subject. Mr. Evans, of Hull, contributes a number of capital cases of injuries to the head, as seen in the Hull Infirmary. Mr. Ainslie Hollis makes some observations on the value of the thermometer as an aid to the Physician. The tabular report he gives of the cases examined by him will be especially useful. Next comes Mr. Holden's most interesting account of the extraordinary boy who was rendered tetanic and insensible by pressing a bump on the right side of the neck. It is one of the most curious cases on record. It forcibly suggests the idea of malingering, but that Mr. Holden's notes put this wellnigh out of the question.

Mr. Delagarde contributes a variety of useful and interesting cases occurring in his practice in the Devon and Exeter Hospital, several of burns, several of various kinds of tumours, and he adds some important observations on cancer.

Mr. Howard Marsh writes as sound a practical paper on tracheotomy in children as any in the book; it contains the result of much careful reading, and not a little observation, for which his position as House-Surgeon at the Hospital for Sick Children gave him many opportunities. We recommend this as in reality one of the best treatises on the subject. Professor Turner, of Edinburgh, describes a curious case of anchylosis of the atlas to the occipital bone, and of dislocation and subsequent anchylosis of the atlas and axis.

Mr. Hensley, in a second paper, discusses the origin of emphysema. He is dissatisfied with the current theories, and, without bringing forward a new one, points out that the lung tissue may be stretched in bronchitis during inspiration; the obstruction offered to the passage of the air in certain tubes thus affected would, he says, cause a greater amount to pass along the others. Associated with this, he holds that there is always degeneration of the substance of the lung. Mr. Astley Bloxam gives an account of the mode of treating fractures adopted in Mr. Paget's ward. One of the most important of these is a modification of the plan recommended by Dr. Hodgin, of St. Louis. The framework is mostly iron; the limb is strapped, and covered with a flannel roller. It is also suspended after a peculiar fashion; but the whole process is too long for extraction. We would, therefore, refer our readers to the original, where they will find full details. Dr. Southey records a curious case in which a large hydatid cyst was removed from the chest, with ultimate complete recovery—certainly rather an unusual event. Mr. Callender performed the operation. Mr. J. C. Fish details the particulars of some cases of brain disease. They were mostly cases of meningitis.

Mr. Paget, in a short but valuable paper, points out that scrofula is by no means so uncommon in the old as is supposed—that its existence may be made out, but that it is apt to be confounded with cancer, as the common sites of the two are identical. Scrofulous swellings have generally, he says, a tinge of redness about them, less vivid than in the young, yet quite apparent; tenderness and heat are two other characteristics. Spontaneous pain, again, with hardness, fixation, and quick increase, are indicative rather of cancer. The shortest communication in the book, this is also probably one of the most valuable. Of not less interest, however, is one from the pen of Mr. Callender, "On the Anatomy of Brain Shocks," comprehending the results of one hundred post-mortem examinations made by Dr. Kirkes or himself, but only forty-eight are recorded in this volume. The results here recorded tend to give additional accuracy to our knowledge of this somewhat obscure object. The twenty-fourth and last article is by Mr. Holmes Coote, and gives some account of a case of traumatic aneurism treated by pressure. Unfortunately, it terminated fatally. The Hospital statistics conclude a very good volume. That all parts of it are equally good and creditable to their authors, we are not prepared to affirm. Some of the papers give indications of immaturity, so to speak; but, on the other hand, there are several which, by themselves, are almost worth the money the whole volume costs. We would, however, suggest to the editors whether it would not be better next year to give a smaller volume of still more carefully selected matter. Dr. Burrows is not one who writes much, but he might be induced to send something which would be sure to enrich the work which contained it.

GENERAL CORRESPONDENCE.

UNIVERSITY EDUCATION IN IRELAND.

Letter from the Rev. Professor Haughton.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your last number it is stated that the present Government contemplate amalgamating into one University all the existing Colleges and Universities of Ireland, and that Trinity College is reported to be in favour of the scheme. What the intentions of the Government are, of course I do not know, but the statement that Trinity College is in favour of such a proposal is entirely devoid of foundation.

In order to carry out such a plan, it would be necessary for Parliament to set aside the charters of two Universities, the graduates of both of which would strongly object to the change, while the effect of the scheme itself upon high-class education, now happily flourishing in Ireland, would be most disastrous, as the standard of the new University degrees would of necessity take its character from that of the lowest of the Colleges admitted into partnership, just as the manœuvriog of the whole fleet depends on the sailing qualities of the slowest tub in the squadron.

As respects the Medical Profession, the amalgamation would be peculiarly injurious, as it would at once destroy the growing desire expressed by Irish Physicians for an education in arts equal to that enjoyed by the candidates for the Church and bar. The extent of this desire in Dublin may be estimated by the fact that out of 797 students of Medicine at present in the Dublin Schools, 235 are students in arts, and intend to graduate in both arts and Medicine in Trinity College.

I am, &c. Samuel Haughton,
Fellow of Trinity College.

School of Physic, Trinity College, Dublin, Dec. 23.

THE SUPPOSED SEAT OF APHASIA.

Letter from Dr. William Ogle.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your last number, Dr. Simpson has published a case,

the interest of which consists, he thinks, "in the existence of an extensive and long-standing injury to the part supposed by a certain school of physiologists to be the central organ of speech, without any impairment of that faculty resulting." As Dr. Simpson makes special reference to a paper on Aphasia, contributed by me to the *St. George's Reports*, perhaps I may be allowed to make a few remarks on his case, and to show that it has not the value which Dr. Simpson imagines it to possess. The case is head d "Extensive Lesion of the Left Posterior Frontal Convolut. n of the Cerebrum without Aphasia." The author clearly fan es that this is the convolution in which Broca locates the central organ of language. This is not the case. Broca's region is the posterior part of the third or inferior frontal convolution, which is utterly distinct from the posterior one, being in front of it, and meeting it almost at a right angle. Buton reading the details of the post-mortem examination of Dr. Simpson's patient, I find that neither Broca's region nor yet the posterior frontal convolution was the seat of the cerebral lesion. This was in a totally different and distant part of the anterior lobe, in front apparently of the left olfactory bulb. So far, then, from this case being in contradiction to Broca's theory, it is really confirmative of it. It helps to show that extensive lesions of the left anterior lobe do not cause aphasia, so long as the posterior part of the third frontal convolution is intact. I am, &c.

Clarges-street, December 23. WILLIAM OGLE.

NEW BOOKS, WITH SHORT CRITIQUES.

Hanover-square: a Musical Journal. Ashdown and Parry. Price 1s.

*** The *chorea Sancti Viti*, the only dance which we wot of professionally, is supposed to be caused by irritation of the spinal cord, caused by the impaction of minute embolic particles derived from the valves of a rheumatic heart. But that which causes rheumatics is cold, damp, stagnation, apathy, and a state of circulation and skin to match; and for this a cheerful dance to cheerful music is an antidote, especially for young people. Therefore, we may recommend this musical magazine as a help to healthy recreation, and may notice, by the by, the melody commonly known as Handel's "Harmonious Blacksmith" is ascribed to Clement Marot, the poet musician of the sixteenth century. Handel had as much faculty for assimilating other people's ideas as if he had been a physiological writer.

MEDICAL NEWS.

OXFORD.—The following Members of the University have graduated or passed examination in Medicine in the University of Oxford during the year 1867:—

Doctor in Medicine.—George Fielding Blandford, M.A., Wadham, on May 23.

Bachelors of Medicine.—George Charles Bright, B.A., Balliol, and Joseph Frank Payne, B.A., Magdalen, on December 14.

First Medical Examination.—George Edward William Norman, B.A., Lincoln; Edward Isaac Sparks, B.A., Corpus Christi; and Henry Sutherland, B.A., Christ Church, on December 12.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 19, 1867:—

Tempest Anderson, 17, Stoneygate, York; Humphrey Lloyd Williams, Bala, Merioneth; Edward Bowles Crowfoot, The College, St. Bartholomew's Hospital; Edward Hewer, Winchester; Horace Chaldecott, Dorking, Surrey; William Betts Giles, Bonchurch, I.W.; George William Smith, Castle Dorrington, Leicestershire; Arthur Bowes Elliott, Guy's Hospital; Richard Augustus Ronse, Great Torrington, Devon; George Wilks, Ashford, Kent.

The following gentlemen also on the same day passed their First Examination:—

James Henry Clark, St. Thomas's Hospital; Edward Johnson Hardy Booth, St. Thomas's Hospital; Henry Mason Jay, St. Bartholomew's Hospital; William Henry Putsey, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CASS, W. C., M.R.C.S.E., has been appointed an Honorary Medical Officer of the Royal Pimlico Dispensary.

CATON, R., M.B., has been appointed Resident Medical Officer to the Royal Hospital for Sick Children, Edinburgh.

RUSSEL, J. C., M.B., has been appointed House-Surgeon to the Lancaster Infirmary.

SALZMANN, F. W., M.R.C.S.E., has been appointed House-Surgeon to the Sussex County Hospital, Brighton.

BIRTHS.

LADD.—On December 18, at 9, Holland-place, Brixton-road, the widow of the late T. E. Ladd, M.D., of a son.

MYRTLE.—On December 20, at Harrogate, the wife of A. S. Myrtle, M.D., of a son.

ORR.—On December 11, at 8, Melrose-street, Edinburgh, the wife of R. Orr, M.D., of a son.

STANLEY.—At Stanton-house, Shiffnal, on November 28, the wife of Surgeon St. John Stanley, 1st Battalion 4th (the K.O. Royal) Regiment, of a daughter.

TAYLOR.—On December 13, at Whickham, Durham, the wife of Dr. Taylor, of a son.

WARREN.—On December 20, at 119, George-street, Limerick, the wife of J. Warren, Assistant-Surgeon Royal Dragoons, of a daughter.

MARRIAGES.

CRIBB—NASH.—On December 11, at St. Michael's Church, Bishop's Stortford, Henry Cribb, L.R.C.P. Lond., to Edith Mary, daughter of Jones Gifford Nash, Esq., both of the above place. No cards.

LING—ATTHILL.—On December 19, at St. Jude's, Mildmay-park, W. S. Ling, M.R.C.S.E., of Brightlingsea, Essex, to Susan, only daughter of R. Atthill, M.R.C.S.E., of Ipswich. No cards.

TREWHELLAN—KELLY.—On December 19, at Addlestone, Surrey, H. E. Trewhellan, M.D., of Headingley, Leeds, to Isabel, youngest daughter of the late P. Kelly, Esq. No cards.

DEATHS.

DOWNING, M., M.R.C.S.E., of Bristol, on December 2, aged 66.

KAYS, M. T., M.D., F.R.C.S., of the Bombay Army, at 66, Porchester-terrace, W., on December 21.

POWLES, R. C., M.D., Physician to H.B. Majesty's Embassy, at Pekin, on November 8, aged 30.

VACANCY.

LIVERPOOL ROYAL INFIRMARY AND LUNATIC ASYLUM.—Medical Superintendent.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Axminster Union.—Mr. P. C. Hayman has resigned the Kilmington District; area 1769; population 518; salary £12 8s. 4d. per annum.

Great Ouseburn Union.—Mr. Samuel Staniland has resigned the Great Ouseburn District; area 9458; population 1994; salary £20 per annum. Also the Workhouse; salary £10 per annum.

APPOINTMENTS.

Edmonton Union.—James Wookey, M.R.C.S.E., L.S.A., to the Cooper's-lane District.

St. Pancras Parish.—Francis W. Gibson, M.D. Lond., M.R.C.S.E., L.S.A.; John R. Perkins, M.R.C.S. Edin., L.S.A.; William H. Platt, L.R.C.P. Edin., L.R.C.S. Ire., to the Workhouse.

Stow Union.—Thomas R. Pearson, L.R.C.P. Edin., M.R.C.S.E., to the Fifth District.

ROYAL COLLEGE OF SURGEONS.—The time for sending in the essays for the Collegial triennial Anatomical and Jacksonian prizes expired on Tuesday last. For the first-named prize of fifty guineas, the subject was on the anatomical structure of those parts of the eyeball contained within the sclerotic and cornea, with illustrations drawn from each of the five great divisions of the vertebrata. For the Jacksonian prizes there were two of twenty-five guineas each, one on injuries and diseases of the jaws, including those of the antrum, with the treatment by operation or otherwise. The other was on the various deformities resulting from severe burns on the surface of the body, the structural changes occasioned by these injuries, the best modes of preventing deformities, and the treatment, operative or otherwise, adapted to corect them. For the ensuing year, there are also *two* prize subjects offered—viz., pyæmia after injuries and operations, its pathology, causes, symptoms, prevention, and treatment. The second is on amputation of the limbs, the various modes of operation now practised, their relative advantages, and the methods of arresting primary hæmorrhage and of dressing the stump. The subject for the next Collegial triennial prize will not be published until about March next.

ROYAL FREE HOSPITAL.—On Friday, the 20th, His Royal Highness Prince Arthur, attended by Dr. Jenner, visited the patients now suffering from the injuries received through the late explosion now lying in this Hospital. His Royal Highness was conducted through the wards by Dr. J. H. Hill and Mr. H. C. Hopkins, the House-Surgeons.

THE RADCLIFFE INFIRMARY.—The Rev. Thomas Forster, M.A., of New College, University of Oxford, lately deceased, has bequeathed, in addition to legacies to other institution, not Medical, the sum of £100 to the above institution.

CAUTION.—We understand that a cargo of trichinous pork has arrived in England, and that a Government veterinary inspector has been instructed to report upon it.

A New Hospital.—A house has been opened at the corner of Lisle-street and Leicester-square as an Hospital for French residents in London. It now contains fourteen beds for in-patients. The institution was commenced as a Dispensary in 1861.

Suspension of the Medical Officer of the Cambridge Union.—Dr. Ransom, the Medical officer of the Cambridge Union, has, by writing a letter to the local press reflecting upon the guardians and their clerk, brought down upon him the contempt of the Board. At their meeting on Wednesday last, they determined to report the circumstances to the Poor-law Board, and suspend Dr. Ransom from his office. For some time it was Dr. Ransom's custom to place his initials to the Medical officer's book, allowing extras in the shape of beer and gin to certain of the inmates who performed extra duties. When the late master left, who used to keep the book for Dr. Ransom, the Board censured Dr. Ransom for omissions, etc., and, consequently, Dr. Ransom declined to place his initials to the extras any longer. The consequence of this was that the auditor surcharged the master with the amount, but has appealed to the Poor-law Board upon the subject. The matter has given rise to considerable discussion, and at the conclusion of the meeting it was resolved to report the whole circumstances to the Poor-law Board, requesting that an inquiry be instituted into the truth of the Medical officer's allegations and also into his conduct.

The ship *Lord Brougham*, from Hamburg, arrived at New York on December 6, with cholera on board, and is now in quarantine. The day after the vessel left Hamburg the disease first appeared, and it raged for 46 days with great malignity. She started with 383 passengers, Germans seeking homes in the New World, and during the voyage 73 died, while at one time 100 were ill with the cholera. The ravages of the disease caused a panic, and it was very difficult for the master, at times, to preserve order. There were 20 cases on board when the ship reached New York, and the well passengers, when taken off, looked like living skeletons. The New York health officers report this to be the worst case that has yet been recorded in that port.

The Walrus.—The visitors to the Zoological Gardens will regret to hear that this animal, so recently purchased by the Council of the Society at an expense of £200, died last week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

The usual exigencies of the Index Number compel us to postpone many letters, articles of news, reports of societies, etc., until next week.

Nemo.—We cannot entertain the application.

Mr. Mitchell.—You can obtain portraits of the celebrated men from Messrs. Moira and Haigh.

A Y. Z.—There is an engraving of John Heaviside, F.R.S., Surgeon Extraordinary to the King, by R. Earlom, from a painting by Zoffany. The collection of portraits by Mr. Squibb is in the possession of the Royal Medical and Chirurgical Society; that of Mr. Wadd in the Royal College of Surgeons.

Obstetrician, Stockwell.—From inquiries made by Sir J. Simpson, and published at the time in this journal, he ascertained that the average number of unfruitful marriages was one in eight and four-sevenths.

Mr. Murray, H.B., Dr. McC.—The result of the recent examination in arts, etc., at the College of Surgeons cannot be known for at least three weeks. The College of Preceptors, by whom these examinations are conducted, will use all despatch in expediting the reading of so many papers as were sent in by nearly 200 candidates.

Cancer Hospital.—You will find some cases of carcinoma of the thyroid gland, by Mr. Cæsar Hawkins, in Vol. IX. p. 136 of the *Medical Times and Gazette*. Sir Benjamin Brodie's lectures on Cancer are also reported in the same volume. Perhaps you may find the desired information in Dr. Walshe's work on the subject.

Dr Davies, Pentonville.—The lines are not correctly quoted; they are Shakspeare's, and should read thus:—

> "Thus we debase
> The nature of our seats, and make the rabble
> Call our cares fears; which will in time break ope
> The lock o' the senate, and bring in the crows
> To peck the eagles."

M.D. and Mr. Thompson.—As registered Practitioners you are exempt from compulsory service; nevertheless several members of the Profession have been sworn in as special constables.

The Clerkenwell Explosion.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any scientific or ingenious person give a satisfactory explanation of the fact that the sufferers from the diabolical outrage at Clerkenwell, whether killed or injured, children or adults, were invariably wounded in the upper part of the body only, and principally about the head and neck? Your detailed account of the injuries shows that such was the case, with one exception, where a child, in addition to concussion of the brain, had a lacerated wound on the side of the knee. Since the fronts of the houses appear to have been blown in, as well as the roofs and ceilings to have fallen, this does seem very remarkable.

Tunbridge Wells, December 23. I am, &c. J. B. W.

A Hint to Dr. Sharpey.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am sure that many of your readers will concur with me in thinking that if Dr. Sharpey would publish in a separate form his portion of Quain and Sharpey's "Anatomy" he would confer a great boon. Many, both Practitioners and students, would gladly purchase his "Microscopical Anatomy" who, from possessing Gray's "Anatomy" or some corresponding book, do not wish to go to the expense of buying Quain and Sharpey's "Anatomy," excellent as it is. I am, &c. F.R.S.

Qualifications of County Coroners.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly say in your notices to correspondents—1st. Whether it is an essential qualification for the office of coroner (for the county) that the candidate should be a landed proprietor? 2nd. If holding a public appointment, such as a "Union District," would be considered a disqualification? I am, &c. A Candidate.

December 17.

*** 1. The question whether a county coroner should be a landed proprietor has never been decided in a court of law. Jervis ("Treatise on the Office and Duties of Coroners," p. 11) discusses the question, and says the point "seems to be supported neither by principle nor authority." In elections for county coroners there is no legal inquiry directed to be made on the subject. The Medical candidate for a coronership is often threatened with proceedings on this point, but he need not be afraid. The precedents against the point are quite overwhelming. 2. No other honourable appointment not interfering with the performance of the duties of coroner for a county would be held as disqualifying for the appointment.

Medical Clubs *alias* Friendly Societies.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—This subject having received some attention in your columns, I would beg to offer a few remarks applicable, as I conceive, for the right and best position of Club Doctors, so called, as well as their employers. A long experience of past years in parish and benefit club practice will enable me to express an opinion on this matter. Benefit clubs are established by the working classes for two objects—first, to obtain a weekly payment in the place of wages when from illness unable to work—second, from the same fund to pay a Doctor, which individually could not be done. So far so good. Now for particulars. These benefit clubs are mostly started by innkeepers to get custom for their own benefit, and Medical men contract for an inconsiderable sum per head; the Doctor under his contract becomes the servant, and often the slave, of every member who wants him or chooses to demand him at all times. He has, in fact, a host of masters to serve, often like the single waiter in an inn who has to be first-hand to attend to a dozen bell calls. The Doctor, and the waiter, and the people all wish each other at Jericho. I can only wish this for my own fraternity, that they would all agree and take the advice of hard-earned experience. Take no club on any such terms. If men or women form clubs, let Medical men be paid reasonable charges for each case out of the common fund, the same as for ordinary employment; this would put aside a vast deal of discontent, and I venture to say the Doctor would not be bearded as he often is, unnecessarily. Besides, there are many tradesmen and innkeepers who join clubs merely to get the benefit of the Doctor for the payment of 2s. 6d. per year. Whatever may be said of the ills of parish Doctors, those of clubs are worse; for in parishes, instead of the Medicus being subject to the order of every pauper, the pauper has to seek out the relieving officer, and obtain an order at his discretion. Young Medical men beginning life catch at these impositions for introduction and experience, and find out too often their mistake.

I am, &c. An Old Practitioner.

Dr. Smollett.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. McG. would find much to interest him in Dr. Smollett's "Travels through France and Italy, with a particular Description of the Town, Territory, and Climate of Nice," 2 vols. 8vo, 1766. One of the author's biographers says the work is "splenetic, prejudiced, and has long been forgotten." This is partly true; but it is also true that it contains much curious information, in a lively style, respecting the countries travelled through, and especially respecting the health of the writer. He left England partly to soothe the grief of his wife, "for the loss of their only child, an amiable young lady who died in her 15th year," and partly, as he says, because "I imagined the change of air in a journey of near 1000 miles would have a happy effect upon my own constitution." He stayed some weeks at Boulogne, whence he wrote to a friend on August 15, 1763, "I am much obliged to you for your kind inquiries after my health, which has been lately in a very declining condition. In consequence of a cold, caught a few days after my arrival in France, I was seized with a violent cough, attended with a fever and stitches in my breast, which tormented me all night long without ceasing. At the same time, I had a great discharge by expectoration, and such a dejection of spirits as I never felt before. In this situation I took a step which may appear to have been desperate. I knew there was no impostbume in my lungs, and I supposed the stitches were spasmodical. I was sensible that all my complaints were originally derived from relaxation. I therefore hired a chaise, and going to the beach, about a league from the town, plunged into the sea without hesitation. By this desperate remedy, I got a fresh cold in my head, but my stitches and fever vanished the very first day, and by a daily repetition of the bath, I have diminished my cough, strengthened my body, and recovered my spirits."—Vol. i. p. 23.

He continued better till he arrived at Montpellier, whence he wrote on November 12;—"A few days after my arrival, it began to rain with a

southerly wind, and continued without ceasing the best part of a week, leaving the air so loaded with vapours that there was no walking after sunset without being wetted by the dew almost to the skin. I have always found a cold and damp atmosphere the most unfavourable of any to my constitution. My asthmatical disorder, which had not given me much disturbance since I left Boulogne, became now very troublesome, attended with fever, cough, spitting, and lowness of spirits, and I wasted visibly every day. I was favoured with the advice of Dr Fitzmaurice, a very worthy, sensible Physician settled in this place; but I had the curiosity to know the opinion of the celebrated Professor F., who is the Boerhaave of Montpellier. The account I had of his private character and personal department from some English people to whom he was well known, left me no desire to converse with him, but I resolved to consult with him on paper. This great lanthorn of Medicine is become very rich and very insolent: and in proportion as his wealth increases, he is said to grow the more rapacious. He piques himself upon being very slovenly, very blunt, and very unmannerly; and perhaps to these qualifications he owes his reputation rather than to any superior skill in Medicine. I have known them succeed in our own country, and seen a Doctor's parts estimated by his brutality and presumption."

Then follows a report, written in perspicuous Latin, occupying nearly four pages, and therefore too long to be copied, but beginning, "Annum setatis, post quadragesimum tertium. Temperamentum humidum, cras-sum, pituitâ repletum, catarrhis sæpissime profligatum," and ending, "Manet vero tabes pituitaria: manet temperamentum in catarrhos proclive. Corpus macrescit, vires delahuntur." One passage is curious, especially in a book intended for popular perusal. "Seminis jactura, sive in somniis effusi, seu in gremio veneris ejaculati, inter causas rarum malorum nec non numeretur." The professor, in return for a louis d'or sent with this report, sends a still longer reply in French, in which he says, "La cause fonchère de cette maladie doit être imputée à une lymphe épaisse et acrimonieuse, qui donne occasion à des tubercules au poumon, qui étant mis en fonte, fournissent au sang des particules âcres et le rendent tout acrimonieux." Smollett was much dissatisfied with this reply, and says, "I was obliged to conclude either that he did not understand Latin, or that he had not taken the trouble to read my *mémoire*. He certainly mistook the case; that upon the supposition I actually laboured under a purulent discharge from the lungs, his remedies savour strongly of the old woman. . . . But after having perused my remarks upon his first prescription he could not possibly suppose, as he did in a second communication, that I had tubercles, and was spitting up pus; therefore, his persisting in recommending the same medicines he had prescribed on that supposition was a flagrant absurdity. If, for example, there was no *vomica* in the lungs, and the business was to attenuate the lymph, what could be more preposterous than to advise the chalkof Briançon, coral, antihecticum poterii, and the balm of Canada?" However, Smollett sent a civil rejoinder, with another fee of twelve livres, and received for answer, "Monsieur n'a plus de doutes; j'en suis charmé. Reçu douze livres. F——."

Who was F., and where is any other account of him to be found?

I am, &c.

J. D.

COMMUNICATIONS have been received from—

X. Y. Z.; Mr. Gross; Mr. Berkeley Hill; Mr. F. Jordan; H. B.; Mr. Spencer Watson; Dr. William Ogle; Dr. Samuel Haughton; Mr. T. Stokes; J. B. W.; Dr. Cribb; Dr. T. Willis; Dr. Gervis; Mr. Stanley; Mr. Starr; Dr. Alex. Paterson; M. A. B.; Mr. E. Rimmel; Dr C. R. Francis; Dr. M. Wyman; Dr. Lionel Beale; Mr. John D. Hill; Mr. F. W. Braine; Mr. J. Chatto.

BOOKS RECEIVED—

Circular No. 7, War Department, Surgeon-General's Office, Washington—Dickinson's Pathology and Treatment of Albuminuria—Journal of Cutaneous Medicine, No. 4—Braithwaite's Retrospect, Vol. LVI.—Hanover-square, No. 3—MacCormac's Hospital Cases—Journal of the Bengal Branch of the British Medical Association—Wyman on Corporal Punishment.

NEWSPAPERS RECEIVED—

New York Medical Gazette—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 21, 1867.

BIRTHS.

Births of Boys, 1136; Girls, 1025; Total, 2161.
Average of 10 corresponding weeks, 1857-66, 1330·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	750	811	1561
Average of the ten years 1857-66	653·6	665·2	1451·8
Average corrected to increased population..	..	..	1457
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	16	6	1	9	5	4	..
North ..	618,210	7	7	19	1	13	13	1	..
Central	378,058	4	9	3	..	8	3	2	..
East ..	571,158	5	12	3	1	12	15	2	..
South ..	773,175	3	11	17	1	14	8	3	..
Total ..	2,803,989	21	55	48	4	56	44	14	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer .. .. 29·615 in.
Mean temperature .. .. 41·0
Highest point of thermometer .. .. 53·9
Lowest point of thermometer .. .. 24·6
Mean dew-point temperature .. .. 34·5
General direction of wind .. .. Variable.
Whole amount of rain in the week .. .. 0·50

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 21, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Dec. 21.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Dec. 21.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082372	39·5	2161	1421	1561	53·9	24·6	41·0	0·50	51
Bristol (City) . .	165572	35·3	122	74	‡106	54·4	29 5	43·4	0·54	55
Birmingham (Boro')	343948	43·9	231	167	197	55·4	25·9	41·1	0·90	91
Liverpool (Borough)	492439	96·4	366	285	309	53·0	26·9	41·4	0·68	69
Manchester (City) .	362823	80·9	245	205	‡243	..	..	..	..	..
Salford (Borough) .	115013	22·2	74	58	66	54·5	26·0	39·9	1·46	147
Sheffield (Borough).	225199	9·9	180	119	98	53·0	24·5	39·9	0·59	60
Leeds (Borough) .	232428	10·8	136	118	104	53·5	23·5	41·5	0·71	72
Hull (Borough) .	106740	30·0	104	49	63	52·0	20·0	37·2	0·77	78
Newstl-on-Tyne, do.	124960	23·4	110	66	52	58·0	30·0	38·5	0·56	57
Edinburgh (City) .	176081	39·8	140	85	98	53·7	29·0	40·1	0·60	61
Glasgow (City) .	440979	87·1	311	257	238	..	..	..	..	..
Dublin (City and some suburbs) .	319210	32·8	137	‡157	180	54·0	29 5	44·0	0·32	32
Total of 13 large Towns . .	6187764	34·8	4317	3061	3318	58 0	20·0	40·7	0·69	70
					Week ending Dec. 14.	Week ending Dec. 14.				
Vienna (City) . .	(1863) 560000	..	..	..	276	..	..	§28·1	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·615 in. The barometrical reading increased from 29·35 in. on Wednesday, December 18, to 29·89 in. on Friday, Dec. 20. The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 38·4°.

APPOINTMENTS FOR THE WEEK.

December 28. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Cold." (Juvenile Lectures).

30. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

31. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Anthropological Society of London, 8 p.m. Local Secretaries' Reports.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Cold." (Juvenile Lectures.)

January 1. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Obstetrical Society of London. Annual Meeting. 8 p.m.; Mr. H. W. Bailey, "A Case of Transposition of the greater Part of the Abdominal Viscera into the Left Cavity of the Thorax." Dr. Trend, "On Fucus Presentations." 9 p.m.: President's Address.

2. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Anniversary, Election of Officers, President's Address, and Conversazione.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Cold." (Juvenile Lectures.)

3. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

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LIST OF ERRATA.

Page 30, col. 1, lines 50, 51, *for* "pin" *read* "pen."
Page 229, col. 2, note, *for* "29" amputations and "22" deaths *read* "30" amputations and "21" deaths
Page 483, col. 2, 8 lines from bottom, *for* "100" *read* "1000."
Page 468, col. 2, 9 lines from bottom, *for* "electricity" *read* "elasticity."

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